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CENTRAL PATENTS INDEX

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WEEK B20
4 JULY 79
37138B - 38967B

ABSTRACTS

INDEXES

- II - PATENTEE
- V - BASIC NUMBER
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Section D:

FOOD
DETERGENTS

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	8 MAY - 14 MAY 79	871,830 - 872,029
-Non Delayed	2 MAY 79	873,373 - 873,484
BRAZIL	2 MAY 79	7,410,370 - 7,900,972
CANADA	17 APR 79	1,052,501 - 1,052,950
SWITZERLAND	12 APR 79 + 30 APR 79	607,556 - 607,813
		610,174 - 610,694
DENMARK	23 APR 79	7,704,163 - 7,804,275
W. GERMANY		
-DAS	10 MAY 79	1,542,791 - 2,828,255
-OLS	10 MAY 79	2,718,016 - 2,848,947
EUROPE	16 MAY 79	01,736 - 01,964
FRANCE*	9 MAR 79	2,399,787 - 2,400,308
	(BOPI 13 APR 79)	
UNITED KINGDOM	16 MAY 79	1,545,711 - 1,546,200
		2,007,071 - 2,007,480
HUNGARY	28 APR 79	H002,424 - H002,427
		T016,327 - T016,491
JAPAN		
-Unexamined	—	40,012,790 - 49,132,795
	5 APR - 11 APR 79	54,043,186 - 54,046,200
-Examined	19 APR - 25 APR 79	79,008,801 - 79,009,600
NETHERLANDS	30 APR - 6 MAY 79	7,711,713 - 7,810,936
NORWAY	23 APR 79	7,703,283 - 7,803,314
PORTUGAL	27 APR 79	65,426 - 68,366
RUMANIA	SEPTEMBER 78	62,496 - 68,582
SOVIET UNION	—	613,882 - 615,179
SWEDEN	30 APR 79	7,701,499 - 7,900,340
UNITED STATES		
-Reissues	1 MAY 79	Re29,977 - Re29,983
-Defensives	1 MAY 79	T982,001 - T982,004
-Patents	1 MAY 79	4,151,612 - 4,152,781
SOUTH AFRICA	APRIL 79	7,702,365 - 7,902,099

*Printed patents actually published mid - late April, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

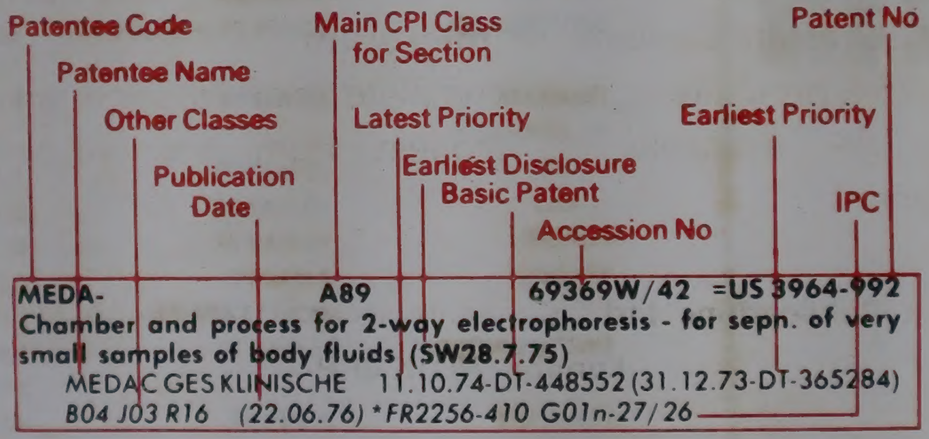
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- **A89** **69369W/42 =US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11 : BAKING

OHN/ ★ D11 37356B/20 ★DT 2750-358
utomatic mfr. of crackers - by mixing leaven separate from bread ough under specified temp. conditions
HOHN K 08.11.77-DT-750358
(10.05.79) A21d-13

Crackers are mfd. from leaven, prepd. from flour and water, mixed in a ratio of 1:8 at a water tem. of 75-95°C cooling to 35°C and storing at 20-50°C for 70 h. The baking dough is made of flour and water at a ratio of 0.8:1 with the addition of leaven and other additives at a rate of <1 wt %. The dough is cooled to <12°C before baking it to crackers.

The low water content makes this pastry infinitely durable. It has an excellent mild bread taste, remains always crisp, yet causes no discomfort to denture wearers. 8.11.77 as 750358 (13pp49)

BAKP D11 40063A/22 =GB 1545-739
Food processing oven with oil ribbon burners - preheated by hot air then gas to reach oil vaporising temperature
BAKER PERKINS INC 26.11.76-US-745077
*+Q32 Q73 (16.05.79) *US4083-353 +B65d-05/72*

A food processing oven includes an assembly of fuel/air burners for heating the oven chamber, whose products of combustion will at least partly enter the chamber. The burners are supplied by a minor connected to lines for gas oil and hot air.

The gas and oil lines have control devices which prevent supply to the mixer until a predetermined temp. is reached at which they will burn satifactorily. The oven may be used for bakery products and prevents contamination by the products of incomplete combustion. 21.11.77 as 048184 (10pp1379)

D12 : MEAT; FISH PROCESSING

RANG- D12 85848A/47 #BE -871-993
Appts. for transporting frankfurter casings - with vacuum to pull casings to diverter disc for disposal
RANGER TOOL CO INC 29.06.77-US-811186 (14.11.78-BE-871993)
*+Q35 (14.05.79) *US4124-919 A22c +B65g*

Casings peeled from cooked frankfurters are transported to a disposal site using a vacuum source. A conduit has a first end at the vacuum source and a second end near to the station where the casings are peeled from the frankfurters. The vacuum source pulls the casings through the conduit.

A diverter is positioned above a station where the casings are finally to be deposited. The diverter blocks the conduit for the casings. It includes first and second portions for sequential alignment with the conduit. Pref. the diverter comprises a disc which is apertured to allow the vacuum to extend through it but to prevent the passage of the casings. The disc is rotatable across the path followed by the casings.

The appts. is used to convey discarded casings from cooked frankfurters to a remote disposal station. The use of the appts. replaces a process which involves several handling stages for the discarded casings. 14.11.78 as 871993 (20pp295)

ARMO D12 15301S/08 =DS 1692-573
Self basting poultry products
ARMOUR CO 01.10.65-US-492319
*(10.05.79) *US3563-763 +A23l-01/31*

Treatment of raw, oven-ready poultry, comprises injecting layers of edible fat in the muscle tissues at several places of the bird's bodies. The process prevents the flesh from drying out during roasting, giving high quality products. 30.9.66 as 692573 (7pp047).

STEM- D12 67864V/39 =DS 2342-985
Delicatessen products with preservative coatings of uniform thickness - applied with solvent vapour retained in treating area and then exhaused to atmosphere
STEMMLER M AND H GMBH 25.08.73-DT-342985
*(10.05.79) *BE-814-611 A23b-04/10*

A system to apply a coating, dissolved in a volatile organic solvent, to meat products and sausages by dipping employs an enclosed container which can be filled and drain-
for all process stages. The soln. is extd. from the container after the dipping operation and the wetted articles are left in the container atmosphere which is enriched with solvent vapours. After these vapours have been extd. the articles are dried by air blasts.

Method avoids contamination of the work place by vapours and gives a uniform coating. 25.8.73 as 342985 (6pp39).

UNIL D12 58765V/33 =DS 2404-610
Meat products mfr. - by finely mincing to destroy fibre structure and addn. of consolidated protein fibre
UNILEVER NV 31.01.73-GB-004838
*(10.05.79) *DT2404-610 A23j-03 A23l-01/31*

Much of the muscular meat of slaughtered animals which is less suitable for consumption due to a high content of tough connective tissue is restructured by extrusion through many small holes. The strands are cut up by reciprocating blades into short pieces which still hang together but are easily broken up at the planes of weakness. The strands are broken up into fingers or granules after a heat-induced solidification.

The meat product is very eatable and digestible, and suitable for pasties or dehydrated soup mixes. 31.1.74 as 404610 (5pp39).

LANG/ ★ D12 37245B/20 ★DT 2747-908
Animal carcass refrigeration system - with precooling tunnel and refrigeration at off/peak periods
LANG O 26.10.77-DT-747908
(10.05.79) A23b-04/06

The animal carcasses are first passed through a tunnel with controlled temps. (10-20°C) and humidity for a controlled time before they pass into the deep freeze chambers. Beef carcasses are deep frozen only after rigor mortis, at off-peak periods at night. Pig carcasses are not only precooled in the tunnel but also deep frozen.

This saves electric power costs. There is less difficulty with ice formation on the evaporators which has to be de-icded. The meat quality is not impaired by too rapid cooling before rigor mortis. 26.10.77 as 747908 (8pp39)

STIB ★ D12 37312B/20 ★DT 2749-667
Steak preparation attachment for domestic appliance - with one driven and one idle spiked roller
STIEBEL WERKE GMBH 05.11.77-DT-749667
(10.05.79) A22c-09

An attachment for a domestic appliance to prepare a slice of meat as steak is a housing with an inlet shaft and an outlet shaft. One of a pair of spiked rollers is driven by the appliance shaft. The other is idle and is pressed by a spring against the first.

This saves the manual spiking of the slices of meat. 5.11.77 as 749667 (8pp39)

UNIC ★ D12 37518B/20 ★EP ---1-867
Peelable cellulosic casing for food prods. - has internal coating of water-soluble cellulose ether and cationic thermosetting resin or edible protein
UNION CARBIDE CORP 03.11.77-US-848065
A97 (A11 A21 A23) (16.05.79) A22c-13
D/S: E(BE, CH, DT, FR, GB, NL, SW).

A cellulosic food casing has an internal coating comprising a water-soluble cellulose ether (I) with either a cationic thermosetting resin (II) or a water-soluble protein (III). (II) may be water-soluble or dispersible and may be curable to a water-insoluble state. When (II) is used, the coating may also comprise a mineral oil, polyol or water-soluble alkylene oxide adduct of partial fatty acid ester. Casing may be reinforced with a fibrous web and is pref. shirred.

Used in the processing of snack goods. The cellulose casing is cheaper than collagen casings, adheres well to the encased food mass and can be readily stripped using automatic equipment. The peeled food prods. do not have an undesirable level of surface grease.

1.1178 as 200281 (35pp949).
(E) ISR: US3905397; FR2141324; US3378379; FR2224088; FR2163623; BE396414; US3360383; GB1175919.

DANE- ★ D12 37608B/20 ★GB 1546-196
Inserting sepg. sheet between bacon slices - by separating slices on jump and accelerating conveyors then inserting sheet
DANEPAK LTD 26.10.76-GB-044353
Q36 (16.05.79) B65h-39/02

Appts. for inserting a carrier sheet beneath slices of a food esp. bacon is located adjacent a slicing machine. Bacon slices fall onto a jump conveyor which is temporarily accelerated as each slice is received to increase the separation between slices. Slices are then transferred to a second conveyor having a higher linear speed to further increase the separation between slices and this conveyor discharges the slices onto a third conveyor. The third conveyor is supplied with individual sheets of separator sheet in synchronism with the arrival of the bacon slices so that each slice falls onto a sheet and the pair is removed for subsequent packing. The separator sheet may be card, paper or platics and is printed in a decorative fashion. A shingle of separated bacon slices is packaged in a transparent envelope and the decorative sheets enhances the saleability of the package. 28.11.77 (7pp295)

MACL/ ★ D12 37610B/20 ★GB 2007-077
Mycelial meat analogues and extenders - prepd. by aerobic culture of amylolytic fungi esp. Rhizopus) on moist starch
MACLENNAN M E 08.11.77-AU-002345
(D16) (16.05.79) A23j-03 A23l-01/28

Protein-contg. material (I) is prepd. as follows: (a) a starch-based material (II) (which may be an N-source(III)) is partially gelatinized in the presence of H_2O to a substrate of max. overall particle size $\leqslant$ 3 mm; (b) (III) is added if necessary without altering the physical characteristics of the substrate; (c) the substrate is inoculated with one or more non-toxic amylolytic fungal strains; (d) the mixt. is incubated in the presence of O_2 and H_2O until most of the substrate particles and/or degradation prods. are closely bound by a network of mycelia; (e.g. the prod. is denatured to afford (I).

(II) is assimilable by the fungal spp. used; is par
has max. overall particles size $<$ 2.5 mm.; and is
in a total amt. which is non-inhibitory, but which al
adequate growth in step (d).

When dried or minced, etc., (I) has the appeara
texture such that it may be used as an extender or s
ute for meat. 7.11.78 as 043483 (10pp478)

UHLK- ★ D12 38281B/20 ★NL 7
Device for supplying cooled drinking water to meat process
combined cooler and storage vessel as one compact unit
GEB UHL GMBH 28.10.77-DT-U33277
(02.05.79) A22c-05

Cooled potable water is supplied to a meat processin
-hine from a combined cooler and storage device co
ing a cooler unit fed via the fresh water feed pipe an
cooled water storage vessel. Both components are e
with temp. and level sensing devices, from which sig
are transmitted to a controlled which regulates the f
cooled water to the process and fresh water to the c
as well as the cooler itself. The device is pref. cons
as one unit mounted over the processor.

The device enables the cooled water to be continu
fed to the meat processing plant and eliminates the n
for ice storage. 27.10.78 as 010732 (7pp1370)

MURM= ★ D12 38427B/20 ★SU -6
Appts. separating frozen fish blocks - from moulds with mou
sliding in slot between guides to prevent moulds tipping
MURMANSK GIPRORYBFL 16.08.76-SU-399950
Q75 (01.06.78) A23b-04/06 F2.id-13/06

Appts. claimed in Parent Certificate No. 506740 incl
a chain conveyor with clamps for mould pins, a heat
the moulds, and an inclined trough to receive the blo
Now in order to improve operational reliability there
two pairs of additional guides smoothly linked with tw
pairs of vertical curved guides and defining between t
a slot for passage of the mould pins.

Pivotably connected rods with a counterweight coo
ate with the mould pins and with the clamps to close t
slot until a clamn acts on a rod to open the slot for a
while the base of a mould slides on a surface to prev
pivoting about the pin axis and possible loss of the m
cover and block. After ascending an inclined convey
section the moulds pass through a cover heater and a
mould heater for releasing the block.
Nikolaenkov V.K., Popov G.M., Pokromkin E.I. et
Bul. 25/5.7.78 16.8.76 as 399950 Add to 506740 (6p

NMHB D12 15896U/12 #US 415
Fish-trimmings reclamation machine - for use with filetting
and for prodn of fish pastes etc
NORDISCHER MASCH 02.12.71-DT-159743 (08.01.72-US-21
*(01.05.79) *DT2159-743 A22c-25/16*

Recovering of residual edible fish meat from a fish s
on from which the fillets have already been taken com
es conveying the fish skeleton in a selected orientatio
wards a cutting station. Non-overlapping rotary cutt
the cutting station cut from the skeleton the zone of th
dominal cavity, together with the adhering blood bag
are both present after removal of the fillets.

A first bone cutting blade rotates in a horizontal pl
and is arranged adjacent to the lower edge of the conv
A second bone cutting blade also rotates in a horizont
plane and is arranged adjacent the upper edge of the c
or.

A prod. free of discolouration and of pure almost s
meat is obtd. which may be used for making fish meat
and for freezing. 15.12.76 as 750693 (-pp1363)

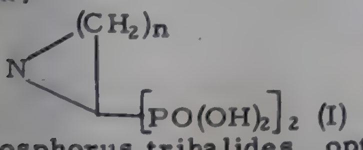
D13: OTHER FOODSTUFFS

★ D13 37162B/20 ★BE -871-939
eine removal from carbon di:oxide extracts - by contacting with
ophilic synthetic adsorbent
EJ INT RES CO BV 14.11.77-NL-012503
97 (14.05.79) A23f B01d
raction of caffeine from solns. in high-pressure CO_2 is
cted by contacting the soln. with a synthetic adsorbent
ch combines a high adsorption capacity for caffeine with
rophilic properties such that it can be regenerated ex-
sively with H_2O.
The caffeine soln. is pref. obtd. by decaffeinating green
fee with high-pressure CO_2. The adsorbent is pref. a
thetic resin with an adsorbent surface hydrophilised by
ar, very weakly ionic, acid gps. derived from a mono-
r with a pK of >7 (e.g. phenol, anisole or naphthol). The
o of total molar adsorption capacoty (moles of caffeine
orbed per kg. of resin at total satn.) to the total no. of
d gps. (acid equivs. per kg of resin) is pref. 1-25 (esp.
5). A suitable commercial adsorbent is 'Duolite S761'
M). 13. 11. 78 as 871939 (7pp367) (F1)

ME- ★ D13 37197B/20 ★BE -873-406
tinuous prodn. of buttery prod. spreadable at low temps. - from
'/s milk, cream and vegetable oil in normal appts.
SVENSKA MEJER RIKSF 25.01.78-SW-000900
(02.05.79) A23d
od. which can be used like butter and is sereadable at
3°C, and which is composed of sepd. cream from cows
lk opt. acidified and/or heat treated and a refined vege-
ble oil contg. tocopherol, pref. soya oil, forming 15-30%
the edible fat, is prepd.
The cream is firstly, or during acidification or heat
eatment, is adjusted to a 36-38% fat content then cooled
3-4°C and stored for at least 3 hrs. The cream is pum-
d to Fritz type butter-making machine. Between the
orage and the macnine all or part of the vegetable oil is
ected into the current flow. Between the injection point
d the machine, the oil is finely divided and emulsified by
xing means in the current flow. The injection is at 5-6°C
d is such that the fat content of the flow reaching the
achine is over 40% pref. 43-45%. If any remains it is
ded to the mixing section of the butter machine and
urning is carried out at 5-7°C.
Process enables continuous prodn. in a conventional
tter-making appts. 11. 1. 79 as 873406 (9pp597)

IL D13 62791Z/00 =DS 1692-535
ter-soluble and/or water-dispersible phosphatide emulsions
UNILEVER NV 13.07.67-DT-692535
*(10.05.79) *NL6809-971 +A23d-03*
sophosphatides, partic. water-soluble and/or water-
persible monoacyl-glycerophosphatides derived from
6C (pref. $>$10C) fatty acids in which most of the acyl
s. are at the β position, are used as emulsifiers in edib-
oil suspensions.
The lysophosphatides are obtd. by enzymatic degradat-
of lecithin-cephalin mixts., (at least 4:1). The prods.
used to prepare edible oil-in-water emulsions, esp.
rgarine. 13. 7. 67 as 692535 (5pp047).

NK D13 17441W/11 =DS 2343-196
acycloalkane-2,2-diphosphonic acids - prepd. from lactams and
osphorus trihalide - for calcium metabolism disorders
HENKEL KG AUF AKTIEN 27.08.73-DT-343196
*303 C01 E11 (D15 D21 D25) (10.05.79) *BE-819-189 B01j-01
C07f-09/65*
acycloalkane-2,2-diphosphonic acids of formula (I) are
w.



(I)

In (I), n is 3-5 and R is H or 1-3C alkyl. Prepn. of acids (I) and their salts comprises react-
ion of corresp. lactams with
osphorus trihalides, opt. in the presence of H_3PO_3, fol-
wed by hydrolysis and opt. salt formation.
The prods. are sequestering agents for polyvalent ions
d are used in complexing agents, washing and cleansing
aids, as stabilisers for peroxy cpds., or in dental and pharmaceutical prepns. 27. 8. 73 as 343196 (7pp047).

CARL- D13 61268Y/35 =DS 2648-296
Mould fastener for continuous chocolate moulding machine - uses spring loaded clamps for automatic changing of moulds
CARLE & MONTANARI 12.07.76-IT-025215
*(10.05.79) *BE-854-098 A23g-01/22*

The casting plates of a chocolate casting machine are moved along by two parallel chains which slide on guide rails. The holding elements of the chains which slide on inside L-shaped guides are bars of rectangular section with recesses for engaging correspondingly profiled ledges on the casting plates. The holding elements can slide on pins, fixed to the chains, at right angles to the direction of motion and are held in position by springs.

This facilitates an automatic change of the casting plates; the plates will not become detached when tapped to free the mouldings. 26. 10. 76 as 648296 (7pp39).

PFIZ D13 25058Y/14 =DS 2659-459
Citric acid by aerobic Candida fermentation in slack wax media - which also contains a solubilising agent, e.g. n-decane
PFIZER INC 03.03.76-US-663347
*B05 E17 H04 (10.05.79) *US4014-742 C12d-01/04*

The prodn. of citric acid comprises aerobic propagation of Candida aerob species in a.q. media contg. suitable nutrients. After > 50% of the available C source has been consumed, paraffin residues (1 pt. wt.) and a solubilising agent (0.25-2 pts. wt.) are introduced, followed by 4-10C alkanols, lower esters of 2-6C alkanoic acids, 8-19C alkanes or alkenes, turpentine, mineral oil or their mixts.

After propagation is complete, citric acid is recovered from the ferment. 30. 12. 76 as 659459 (5pp047).

TOYJ D13 59683Y/34 =DS 2704-545
Pure phosphoric acid prodn. - by treating extracted phosphoric acid with barium cpds. to precipitate sulphate ions
TOYO SODA KK 13.02.76-JA-013945 (13.02.76-JA-013941)
*B05 E36 (10.05.79) *DT2704-545 C01b-25/46*

Sulphate is removed from H_3PO_4 solns. by addn. of a Ba cpd. and removal of the $BaSO_4$ ppte. at temps. up to 80°C. Pref. the acid concn. is >70%, and $\geqslant$5ppm. by wt. of SO_4^{2-} remain in soln.; the pptn. of $BaSO_4$ by addn. of a Ba cpd. is then repeated; excess Ba can be removed with H_2SO_4.

Pref. solns. of Ba cpds. in aq. H_3PO_4 are used. 3.2.77 as 704545 (+ 13.2.76 - JA - 013944) (10pp047).

RALS ★ D13 ~ 37447B/20 ★DT 2848-152
Acid-modified fat as feed supplement additive for cattle - to reduce excessive consumption of the supplement
RALSTON PURINA CO 03.08.78-US-930786 (09.11.77-US-849721)
C03 (10.05.79) A23k-01/18

Additive for cattle feeding supplement is an acidified fat (A) made by treatment with an acid at $\geqslant$104°C. Pref. an inorganic acid is used at $\geqslant$1 wt % on the fat (which may be of animal or vegetable origin) and the treated prod. has pH 4-7.

Also new are supplements contg. (A) esp. at $\geqslant$1.5 wt % opt. together with 1-20 wt % meat meal, 0.1-5 wt % $(NH_4)_2HPO_4$ and 0.1-5 wt % $(NH_4/_2SO_4$. They may also include 1 cereal prod. at up to 22 wt %.

(A) reduces consumption of the supplement by cattle so allows it to be given freely without the need for special metering equipment, and without the risk of excessive con-sumption. 7. 11. 78 as 848152 (23pp1251)

RALS ★ D13 37448B/20 ★DT 2848-182
Liq. feed supplement for cattle contg. acid-treated fat - to prevent excessive consumption of the supplement
RALSTON PURINA CO 03.08.78-US-930787 (09.11.77-US-849741)
C03 (10.05.79) A23k-01/18

Feed supplement for cattle comprises a liq. carbohydrate-contg. base material, usual supplemental additives and an acidified fat (A) made by treatment with acid at >104° esp. 127°C.

The acid is esp. HCl and (A) is >1.5 pref. 2-8 wt %

GENO D13 11867T/08 = J7 9009-142

Instant coffee prodn - where gas blower foams in first and second zones followed by freeze drying

GENERAL FOODS CORP 05.08.70-GB-037888

*(21.04.79) *DT2139-021 A23f-01/08 +A23l-01 A23l-02/08 B01d-01/18*

Pressurised N_2 is injected into a flow of concentrated coffee extract in a first mixing zone and then led to a second zone where plates spaced apart form paths for a coarse foam product. A second zone with plates designed in a ring and perforated produces the fine foam product with low bilk density. The blower has inlets for gas and liq. and first plates 0.254-2.54 mm thick and spaced by the same amt.

Foam product is easily spray dried, has no included gas bubbles, is light in wt. with low density, with attractive appearance and good flavour. 5.8.71 as 059293 (clg. 5.8.70-GB-037888) B01d-1/18, A23f-1/08, A231-1/00, 2/08 (21.4.79) GENERAL FOODS LTD (6pp)(J4 7005263)

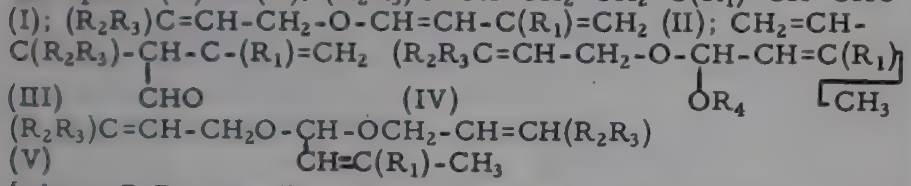
HOFF D13 67808V/39 = J7 9009-164

Alpha, beta unsatd, aldehydes prepn. - citral derivs useful as perfumes and flavouring agents

HOFFMANN-LA ROCHE AG 12.03.73-US-340496

*E17 (D23) (21.04.79) *BE-812-104 C07c-43/14 C07c-45 C07c-47/20*

Aldehydes of formula (I) are prepd. by heating any one of the cpds. (II) to (V): $(R_2R_3)C=CH-CH_2-CH_2-C(R_1)=CH-CHO$ (I); $(R_2R_3)C=CH-CH_2-O-CH=CH-C(R_1)=CH_2$ (II); $CH_2=CH-$



$$C(R_2R_3)-\underset{\displaystyle CHO}{\underset{|}{CH}}-C-(R_1)=CH_2 \quad \text{(III)}$$

$$(R_2R_3C=CH-CH_2-O-\underset{\displaystyle OR_4}{\underset{|}{CH}}-CH=C(R_1)-CH_3 \quad \text{(IV)}$$

$$(R_2R_3)C=CH-CH_2O-\underset{\displaystyle CH=C(R_1)-CH_3}{\underset{|}{CH}}-OCH_2-CH=CH(R_2R_3) \quad \text{(V)}$$

(where R_1R_2 are alkyl; R_3 is H, alkyl, 2-8C aliphatic hydro-carbyl with 1 or 2 double bonds; R_4 is a hydrolysable protecting gp. and R_{1-4} are pref. methyl).

(II) and (III) are pref. heated at 100-130°C and (IV) and (V) at 120-130°C in liq. phase and 200-400°C in vapour phase, in the presence of an acid catalyst. Yields of about 70% are obtd. 11.3.74 as 027278 (clg. 12.3.73-US-340496) C07c-47/20, 45/00, 43/14 (21.4.79) HOFFMANN LA ROCHE (13pp) (J4 9125314)

INLO- ★ D13 B/20 ★RU --65-189

Sugar, glucose and saponin halva prepn. - using saponin extract from Aesculus Hipocastanum

GRUP INTR IND LOCAL 23.12.73-RU-077096

(30.09.78) A23g-03/32

INDU- ★ D13 B/20 ★RU --67-249

Non-toxic compsn. for food ind. - based on vaseline, beeswax, metal soaps and natural rubber

INTR CAR 06.10.75-RU-083528

H07 (00.00.00) C10m-05/10

LEBA= ★ D13 38302B/20 ★SU -614-024

Prodn. of di:sodium phosphate with reduced moisture content - from phosphoric acid and sodium carbonate including specified gas stream drying, useful as intermediate and in food and animal feed compsns.

LENGD BASIC CHEM 03.08.76-SU-391414

C03 E34 (02.06.78) C01b-25/30

Phosphoric acid is neutralised with a sodium cpd. with heating, and the sodium phosphate is obtd. by drying the reaction prod. in a stream of hot gas.

The efficiency of the drying process can be increased and the content of water in the prod. reduced if the neutralisation process is effected with soda at 95-105°C to give a pH of 7.3-7.9, and the gas used for drying is at a temp. of 600-650°C.

The modified method results in a moisture removal rate of 7.5 kg/m³ hr., and gives a prod. contg. only 0.5% moisture, and the deposition level is greatly reduced. The disodium phosphate can be used in prodn. of feedstuffs and as an intermediate.

Sapov Yu.N, Cherepanova A.S., Remen R.E. et al. Bul. 25/5.7.78 3.8.76 as 391414 (2pp815)

ABME= ★ D13 38372B/20 ★SU -614-1

High yield mono:acyl urea prepn. - by reacting carboxylic ac with urea in sulphuric acid contg. sulphur tri:oxide as a condensi agent

AS BELO METABOLISM 01.08.76-SU-390642

C04 (C03) (07.06.78) C07c-127/22

Monoacyl ureas (I) of the formula $NH_2CONHCOR_7$(R is alkyl) are formed by reacting carboxylic acids and urea (II). Sulphuric acid is used as the solvent medium and t process is carried out in the presence of sulphur trioxid (III) as a condensing agent.

Yield of (I) is up to 82%. The process is specifically effective when monocarboxylic acids (3-7C atoms), wast prods. from the mfr. of caprolactam, are used. (I) may be used in agriculture as long action nitrogen fertilisers (low solubility in water as compared with (II)) and also a nitrogeneous supplementary feeding for ruminants.

Ostrovskii Yu.M., Kravchenya, N.A., Bul. 25/5.7.78 1.8.76 as 390642 (2pp48)

PEAT= ★ D13 38470B/20 ★SU -614-78

Prodn. of agricultural animal or plant growth stimulator - include oxidn. of alkaline peat suspension with atmos. oxygen unde controlled conditions of temp. and pressure

PEAT IND RES INST 06.12.76-SU-429567

B04 C03 (01.06.78) A01n-05

The biostimulator agents for livestock and crops are obtd from peat by (a) forming an aq. alkali suspn. of the peat (b) oxidising it with atmos. O_2 for 0.5-2 hrs. at 105-160°C, (c) cooling it to 80-20°C (d) sepg. the unoxidised portion (e) evaparating the filtrate and (f) drying it at 80-90°C to powder form.

The method ensures a good yield of high- and low-mol biologically active acids.

Mayakova E.F., Tikhomirov G.P., Bul. 26/15.7.78 6.1 76 as 429567 (3pp314)

GFOO= ★ D13 38471B/20 ★SU -614-78

Tea shoots fractionating appts. - with inclined chain conveyo carrying cam pivotable guide plates over strings

GEORG FOOD IND RES 26.01.76-SU-319258

(01.06.78) A23f-03

The appts. includes a loading mechanism, a chain conveyo with strings secured between its runs, and a cutter. To improve output the conveyor is inclined and has guide plates pivotably fixed to the links and mounted over each string for orientating the shoots relative to the strings.

Kirakosyan E.A., Ramfopulo P.S., Tsamalaidze R.A. Bul. 26/15.7.78 26.1.76 as 319258 (3pp1358)

BABA/ ★ D13 38472B/20 ★SU -614-784

Protein-vitamin yeast biomass additive for animal feed prodn. - from wastes of butyl:acetonate and alcohol prodn., includes sec. fermentation after decanting spent liquor to increase yield

BABAKOV F P 07.07.70-SU-458370

C03 (D16) (01.06.78) A23k-01/06

The animal feed biomass prodn. includes a secondary fermentation of the spent liquor by growing yeasts. The yeasts are then combined with a feed filler and dried.

This method is improved by decanting the spent liquor before the secondary fermentation; blending the resulting sediment with a feed filler and drying. Then yeasts are grown in the decantate and processed as described above after partial evapn. of the yeast suspension.

By this method, the quality and quantity of the prod. are improved.

Babakov F.P., Pukhilevich F.M., and Klimenko Ya.A. Bul. 26/15.7.78 7.7.70 as 458370 (2pp70)

AUBO= ★ D13 38473B/20 ★SU -614-785

Fruit and vegetable preservation compsn. - contg. specified domestic herbs as low cost substitutes for imported spices

AS UKR BOTANICAL GD 01.03.76-SU-328226

(01.06.78) A23l-01/22

Domestic prods. to replace imported spices are used to reduce preservation costs and improve flavour etc. for black pepper and pimento are used 1.0-2.5 g/kg (based on starting material, summer savor plants (S. hortensis) or vitex agnus castus L, or sweet marjoram. Clove and cinnamon substitutes comprise 1.0-2.5 g/kg Siberium geum (G urbanum) omatic additive comprises 0.5-2.5 g/kg. Tanacetum samital plants, or Dvacocephalum Moldavica L. or via sclorea L (clary sage).

eush Yu.A., Bobrova A.D., Romanenko L.R. et al 1. 26/15.7.78 1.3.76 as 328226 (3pp835)

R= ★ D13 38474B/20 ★SU -614-786

it and vegetable preservation - by coating with iodised starch n. and drying to improve storability

KIEV TRADE ECON INS 21.10.76-SU-413379

(01.06.78) A23b-07/14 A23l-03/34

ruit, vegetables etc. are secured from deterioration ring storage by immersion in a preservative and subquent drying.

The improved preservative comprises an aq. soln. of dised starch contg. 0.01-1 % bound iodine, in which the rods. are immersed for 1-1.5 min. The prods. are en coated with above soln. and dried in air to prolong orage life.

opova E.R., Krutyi R.S., Kolesnikov V.T. et al. ul. 26/15.7.78 21.10.76 as 413379 (4pp835)

UMA/ ★ D13 38493B/20 ★SU -614-816

entrifugal liquid e.g. milk fractions separator - has vertical tube pen to atmos. at top and attached to central tube, with fluid inlet r uniform feed rate

TUMASONIV I YU 29.12.75-SU-306014

P41 (06.06.78) B04b-01/08

he separator comprises a drum on a vertical shaft, plate-older with pack of conical plates and central tube to feed ne milk into the drum.

To feed the milk under hydrostatic pressure, maintain aminar flow and thus raise productivity, it has a vertical ube open to atmos. at the top, with an inlet for the milk, hich is attached to the central tube.

When the separator is started, milk is fed in till there s a column in the tube of e.g. 1.7 m height. The hydrosttic pressure of 0.17 kg/sq.cm. which forms in the vertial tube ensures that the drum is fully loaded, prevents avitation and helps to preserve the laminar flow of the nilk into the drum. Air bubbles float up along the vertical ube and out to atmos.

Tumasonis, I. Yu., Berzhinskas, G.G. Bul. 26/15.7.78. 9.12.75 as 306014 (3pp18)

ECA- ★ D13 B/20 ★SW 7710-720

Analysis of both water-soluble and insoluble food fibre components - by breaking down protein and starch with enzymes and passing sample through glass filter and ultrafilter in succession

TECATOR AB 26.09.77-SW-010720

J04 R16 (30.04.79) G01n-33/02

f necessary, fat is extracted from the sample. The sample s then treated with enzymes so that protein and starch are broken down sufficiently to pass through the ultrafilter. Water-soluble fibre components are separated and determined by passing the sample first through the glass filter and then through the ultrafilter. This can be done in two stages or by using a single piece of appts. that combines the two filters. 26.9.77 as 010720 (-pp1407)

BUCM D13 81426Y/46 =US 4151-795

Fruit juice extraction drum - with diaphragm dividing mash drainage space from pressure or vacuum space with discharge spirals

BUCHERGUYER MASCH 21.04.76-CH-004962

*P71 (01.05.79) *DT2712-332 B30b-09/22*

Appts. for sepg. liq. and solid materials from one another esp. for the removal of juice from fruit, comprises a press container rotatable about a lengthwise extending axis. The container has a prod. residue outlet and a hood-shaped squeezing diaphragm subdividing the press container into a pressure compartment and a squeezing compartment.

An ejector is arranged in the squeezing compartment to allow transportation of the prod. residue toward the residue outlet in the manner of a worm screw. 31.3.77 as 783265 (-pp1363)

WINC- D13 63492X/34 =US 4152-101

Production of blocks of natural cheese - by submitting a column of curds to differential pressure achieved by pulling vacuum below column

WINCANTON ENG LTD 04.04.75-GB-014002

*P13 (01.05.79) *BE-840-192 A01j-25/12*

Appts. for forming blocks of cheese from crumbled cheese curd comprises a first chamber superimposed on a second chamber and a guillotine blade extending across and closing the lower end of the first chamber. Crumbled cheese is fed into the upper end of the first chamber to form a pillar of curd on the blade. Air and pressed out whey is extracted from the first chamber.

The pillar of curd is repeatedly lowered and the bottom end of the pillar is severed to form a block of cheese. Fresh curd is added to the top of the pillar through a feed pipe from a hopper. The feedpipe discharges into a cyclone separator in the top of the chamber for sepg. air from the curd. 28.9.77 as 837566 Div. ex. 4061794 (+2.4.76-US-672953)(-pp1363)

BOEF D13 89647A/50 =US 4152-116

Colorimetric assay of ascorbic acid - using tetrazolium salts, phenazine metho:sulphate and a detergent in slightly acid conditions

BOEHRINGER MANNHEIM GMBH 09.12.77-DT-754944

*B04 E13 J04 R16 (01.05.79) *BE-867-952 +G01n-21/06 G01n-31/14 G01n-33/16*

In the determination of ascorbic acid or dehydroascorbic acid, (i) a sample soln. contg. the acid is reacted with a tetrazolmin salt which is 3-(4, 5-dimethyl-thiazolyl-2)-2, 5-diphenyltetrazolium bromide, nitrotetrazolium blue, tetrazolium blue chloride or distyryl-nitro blue tetrazolium chloride, in the presence of henazine methosulphate and a detergent, at a weakly acidic pH, and (ii) the colouration obtd. is evaluated as a measure of the initial acid content. Pref. the pH is adjusted with a phosphate/citrate buffer and esp. is 4.0-6.

The method is applicable to the assessment of foodstuff quality and urine and serum analysis. Disturbance of the reaction by foreign substances is eliminated. 28.6.78 as 920034 (6pp990)

ELLC- D13 44132A/25 =US 4152-260

Removing iron cpds. from blood hydrolysates for food products - by filtering at a rate below 200L per square meter per hour

ELLCO PROTEIN AB 15.02.77-SW-001661

*+R16 (01.05.79) *BE-863-928 +C02b-01/26*

Fe cpds. which in a photometer give a high absorption of light at a wavelength of 500 nm are removed from a hydrolysate of an aq. red cell concentrate or a hydrolysate of whole blood by filtering at pH < 8 at a rate < 200 $1/m^2$ filter area per hr.

The process is partic. suitable in connection with prepn. of seasoning compsns. comprising the hydrolysate of blood or blood concentrates. 6.2.78 as 875572 (3pp984)

MICR- ★ D13 38820B/20 ★US 4152-271

Homogeneous mixts. contg. finely divided ferromagnetic tracers - esp. animal feed mixts. and powdered explosives

MICRO TRACERS INC 28.01.74-US-437037 (11.08.72-US-280064)

C03 K04 (01.05.79) A23k-01/17 C09k-03

Homogeneous mixt. comprises a major proportion of a bulk ingredient (I), a minor proportion of a micro-ingredient (II) and a 20- to 325-mesh finely divided ferromagnetic material as tracer. The tracer and (II) are present in a preselected ratio.

Tracer can be sepd. from a mixt. quickly and easily by using a magnetic probe, even when the mixt. is a moving stream during prodn. processes etc. Large samples can be examined easily. Mixts. monitored include animal feeds to which micronutrients, drugs, etc. are being added, and powdered explosives esp. for use in prodn. of safety fuses. 28.1.74 as 437037 (-pp1363)

OLIN ★ D13 38880B/20 ★US 4152-398

Defluorinated phosphate rock granules prepn. - with added phosphoric acid for use as animal feed supplements

OLIN CORP 09.06.77-US-805050

C03 (01.05.79) C01b-15/16 C01b-25/26 C01f-01 C01f-05

Defluorinated phosphate rock granules are prepd. by (i) first forming a mixt. of F-contg. phosphate rock, H_3PO_4, Na_2CO_3 and water, and then granulating it, (ii) heating the granules to defluorinate them without fusion (the prod. contg. < 18% P) and (iii) adding H_3PO_4 to the granules while they are at 175-400°C during cooling in a fluidised bed (to give a prod. contg. $\geqslant$ 18% P) and recovering the granules.

Granules are useful as animal feed supplements. They are obtd. economically and efficiently and have an adequate P content. 9.6.77 as 805050 (9pp1248)

CIBA D13 74443T/47 #US 4152-444
Rifamycin and nitrofuran mixtures - synergistic antibacterial feed additives
CIBA GEIGY CORP 29.04.71-CH-006293 (19.04.72-US-245649)
*B02 C02 (B03) (01.05.79) *DT2219-438 A61k-31/41*

Bacterial infections in humans and animals are treated by administering an effective amt. of a prepn. of rifampicin (I) and nitrofurantoin (II). The ratio of (I)-(II) is 6-1:1.

Pref. the prepn. is administered orally, esp. in the form of gelatin capsules, or parenterally. Pref. the ratio of (I):(II) is 6:1 or 2:1. Pref. the dosage unit contains 50 mg (I), or 150 mg (II) and 300 mg (I). 29.8.77 as 828382 (+7.6.74, 15.12.75-US-477540, 641107)(5pp974)

QUAK ★ D13 38905B/20 ★US 4152-462
Stable marshmallow food bar - fortified with protein and vitamin(s) and packaged with water converting catalyst
QUAKER OATS CO 12.12.77-US-859911 (02.08.76-US-710479)
(01.05.79) A23g-03

A fortified food bar of water activity coefft. (Aw) < 0.85 comprises (i) marshmallow contg. $\nless$ 5 wt.% reducing sugars; (ii) fat-coated protein; (iii) cereal protein heat-treated to gelatinise the starch and denature the protein; (iv) polyhydric alcohol; (v) fat contg. $\leqslant$ 20 wt.% emulsifier and (vi) fat-coated vitamins.

The bar is completely sealed in a hermetic container which also includes a water-converting catalyst. The atmos. surrounding the bar contains $\ngtr$4 wt.% O_2, the rest is an inert gasplus sufficient H_2 to combine with all the O_2.

Component (ii) is esp. a coated casein or caseinate salt. The bar may be coated with a mixt. of 30-40 wt.% vegetable fat or oil; 10-40 wt.% sugar; 25-50 wt.% non-fat dry milk solids; flavouring and opt. fat-coated vitamins.

The bar, fortified by protein and vitamins, is stable against degradation. 12.12.77 as 859911 (7pp1251)

QUAK ★ D13 38906B/20 ★US 4152-463
Stable marshmallow food bar prodn. - contg. vitamin(s) and proteins and packaged under inert gas with water converting catalyst
QUAKER OATS CO 09.12.77-US-859196 (02.08.76-US-710479)
(01.05.79) A23g-03

A food bar is prepd. . comprising (i) marshmallow contg. $\ngtr$ 5 wt.% reducing sugars; (ii) fat-coated casein or caseinate salts; (iii) cereal protein heat-treated to gelatinise the starch and denature the protein; (iv) polyhydric alcohol; (v) emulsified fat (or fat contg. an emulsifier) and (vi) fat-coated vitamins.

The bar is placed in a container together with a water-converting catalyst, then $\geqslant$ 96 wt.% of the atmosphere replaced with a mixt. of H_2 and inert gas, then the container sealed to prevent further O_2 from reaching the bar. The bar may include an intermediate moisture food prod. (15-45 wt.% moisture) and has water activity <0.85.

The fortified bar is stabilised against degradation. 9.12.77 as 859196 (7pp1251)

MEAC D13 15978B/09 =US 4152-464
Aseptic packaging of acid foodstuffs - using plastic containers of low oxygen permeability which are sterilised in hot aq. liq.
MEAD CORP 22.08.77-US-826352
*A92 Q31 +P34 (01.05.79) *BE-869-890 B65b-55/14 +A61l-01*

A method for the aseptic packaging of high acid foods
prises immersing oxygen barrier preformed plastics
in a bath of liq. sterilant e.g. water, for from < 1 se
to 3.5 minutes at bath temp. 205-140°F respectively.
cups are then removed from the bath and drained, afte
which the cups are filled with a high acid food product
ing a pH of < 4.6. The cups are then sealed by a ster
cover element.

The whole draining and filling operation is carried
in an enclosed space filled with a sterile inert gas.
22.8.77 as 826352 (-pp1363)

MEIJ ★ D13 38907B/20 ★US 4152
Removing odour and flavour from textured soya protein -
heating then treating with superheated steam
MEIJI SEIKA KAISHA 05.07.76-JA-078927
(01.05.79) A23j-01/14 A23j-03

Objectionable flavours and odours are removed from te
ured soya protein (A) by heating at 80-145°C at such a p
ssure that the water in (A) does not boil while keeping
er content at 10-75 wt.%, and avoiding deterioration of
texture.

Green beany flavours and odours are developed and l
erated but, heating is not for so long that other off-flav
ours or odours develop. (A) is then heated with a conti
uous flow of superheated steam at 105-160°C and static
pressure < S.V.P. of water at this temp. (A) is kept
about 100°C and loses water along with the flavour and o
our components.

Complete removal of objectionable flavours and odou
is achieved simply and economically. 1.7.77 as 812381
(10pp1251)

DERE/ ★ D13 38908B/20 ★US 4152-
Stable peanut butter syrup - comprising sweetener, peanut
peanut butter, xanthan gum and water
DERETCHIN B B 27.06.78-US-919473
(01.05.79) A23l-01/09

The homogeneous peanut butter compsn. comprises (by
77% sweetener; 10.7% water; 9.5-11 (10.5)% peanut butt
0.25-0.6 (0.4)% peanut oil and 0.07-0.13 (0.1)% xanthan
gum. Pref. the sweetener is sucrose and/or a high fruc
ose corn syrup.

The compsn. is made by slurrying the gum and oil, a
-ing the water and blending for 5-10 min. to hydrate the
gum. Then 38% sweetener is added, the mixt. stirred
while heating to 150°F, then the peanut butter added. Fi
-ally the rest of the sweetener and 1.3% salt are added a
the mixt. stirred while heating to 190°F.

The gum stabilises both the oil and the butter so prevents sepn. 27.6.78 as 919473 (3pp1251)

TORA D13 81494Y/46 =US 4152-4
Metal removal from aminoacid prods. - uses chelating resins wi
basic aminoacid salt gps.
TORAY INDS INC 27.04.76-JA-047242
*A91 E16 (01.05.79) *DT2718-649 C02b-01/42*

Metal ions are selectively eliminated from soln. (I) by contacting (I) with a solid chelate resin having chelating carboxylic anion gps. neutralised with basic amino acid cation prior to contact with (I). The resin reacts with the metal ion to absorb the metal ion from soln.

Pref. chelate resin has a chelating gp. of formula $-N\left[(CH_2)_nCO_2^-.AH^+\right]_mR_{2-m}$ (where AH^+ is basic amino acid cation, R is H or alkyl, m is integer of 1 or 2 and n is integer of 1-4). The process is useful for removing heavy metals, Al, etc. with high efficiency. 25.4.77 as 790744 (9pp924)

See Also

D16 SU 615130
D23 BE 871930
D16 US 4152213
D23 GB 2007205
D18 EP ---1887
D23 US 4152530

D14: FOODSTUFF MACHINERY

AL- ★ D14 B/20 ★BR 7706-712
echanical guava peeler - has motor driven drum clad internally
ith abrasive material
ITAL INST TEC ALIM 07.10.77-BR-006712
(02.05.79) A23n-07/10

OLES/ ★ D14 B/20 ★DK 7804-275
Combined cleaning mechanism and stone remover for root
egetables
OLESEN R S 27.09.77-GB-040171
(23.04.79) A23n 27.9.78 as 004275

BEKE/ ★ D14 B/20 ★HU T016-352
Mixer for compsns. based on granulates and/or powders - partic.
for fodder preparation
BEKES M 12.06.78-HU-BE1257
J02 (28.04.79) B01f-07/08

ELEL- ★ D14 B/20 ★HU T016-434
Appts. for dissolving solids - partic. for cleaning and/or disinfecting
units in food industry cleaning centres
ELELMEZESIPARI TERV 25.11.76-HU-EE2461
J04 P28 (28.04.79) A47l-15/44 B01f-05/12 D06f-39/02

MIME= ★ D14 38434B/20 ★SU -614-303
Food products conveyor dryer - has radiators and parabolic shaped
reflectors hinged to each other to form panels
MINSK MEAT DAIRY 16.01.75-SU-097859
Q76 (01.06.78) F26b-05/02 F26b-15/18

The food prods. e.g. cheese, dryer contains a conveyor and jet accoustic radiators provided with reflectors, e.g. of parabolic shape. To intensify the process and improve drying quality the adjacent reflectors side edges are hinged to each other thus forming panels. The panels are attached to the dryer body using suspensions of adjustable length. The reflector panels can rotate about the dryer longitudinal axis.

Litovko V.I., Petrovich V.A., Kabaldin G.S. et al. Bul. 25/5.7.78 16.1.75 as 097859 (2pp110)

NCAU= ★ D14 38485B/20 ★SU -614-807
Dilute solutions prodn. control - when making marinades, by
measuring density of soln. in proportionator, to determine the
dosage needed
NORTH CAUCASUS FOOD 21.06.76-SU-376319
R26 (09.06.78) B01f-01 B01f-03/08 G05d-11/02

Dilute solutions prodn. control, e.g. in the automatic equipment for making marinades in the preserves industry is suitable for dilution of concentrated solutions. A portion of the concentrated solution is mixed with a solvent, while the feed of both constituents to a proportionator is varied. Manufacturing precision is increased by measuring the values of the produced specific gravity of the concentrated solution at the level in the proportionator and the value of the specific content of dissolved substance, to determine the dose needed of the concentrated solution. The sum of these values is calculated, and multiplied by a constant factor. As the signals reach equality the supply of concentrated solution to the proportionator is cut off.

Evdokimenko, Yu.V., Nikolaeva, L.P. Bul. 26/15.7.78 21.6.76 as 376319(3pp29)

TAMB= ★ D14 38488B/20 ★SU -614-810
Animal feedstuffs drum mixer - has multiple screw blades rotating
in same direction as drum, and set at an angle to throw the particles
up and over
TAMBOVKOLKHOZPROEKT 01.09.76-SU-401912
(08.06.78) B01f-09/02

Contacting drum-mixer to make hard, liquid, hydrated and concentrated animal fodder, has inclined rotating body contg. multiple-thread screw blades fastened to the inner surface of the drum and pointing in the direction in which the drum rotates. Multi-ingredient mixtures are obtained, with increased mixing quality and productivity, by arranging the blades at a tangent to the surface of the drum, with an angle of slope of 20-30°. A loading conveyor supplies constant flow. Centrifugal frictional forces lift the particles to a predetermined height up the walls. The circular trajectory is converted into a parabo -ic and the particles fall again.

Ablautov, V.M. Bul. 26/15.7.78. 1.9.76 as 401912 (3pp 29)

KDPO= ★ D14 38495B/20 ★SU -614-81
Centrifuge for separating food suspensions - has filtration uni
contg. sieves composed of cylindrical wire spring
KRASND POLY 04.10.76-SU-409257
J01 P41 (06.06.78) B04b-03 B04b-07/16

The centrifuge comprises a conical rotor with annular cha -nels with apertures to remove the filtrate set along it, an a filtration mechanism consisting of a row of sieves of tor us shape, each set in a groove to form an annular threshold.

To simplify the design and reduce mfg. costs, each sieve is composed of a cylindrical wire spring. The wire forming the spring may be circular, segment-shaped, rect angular or trapezoid in section. If segment shaped, the flat side of the segment faces outwards. If trapezoid, the greater base of the trapezium faces outward.

Ilin, M.I. Bul. 26/15.7.78. 4.10.76 as 409257 (3pp18)

NEAR/ ★ D14 38706B/20 ★US 4151-792
Cooker and mixer appts. - comprising pressure cooker with rotating
paddles driven by external motor
NEARHOOD T C 20.12.77-US-862484
P28 (01.05.79) A47j-27 B01f-07/18

A cooker-mixer appts. includes a container with a lid to which the mixer is connected. The mixer is connectable t a power source to cause rotation of a paddle assembly mounted at the bottom of a main hub.

The paddle assembly wipes the bottom of the container. The assembly includes several spaced paddles each having a spoke secured to the hub, and a wiper end secured to the outer end of the spoke. The spokes each have material flow channels adjacent the lower surface to permit flow of a prod. in the container through the spokes on rotation of the mixer assembly.

The appts. is placed on a heating element and is used to simultaneously cook and mix a food prod. 20.12.77 as 862484 (6pp295)

VDON/ D14 52278Y/30 =US 4151-847
Safe, automatic plant stalk stripping machine - with totally enclosed
gripper, stripping knives and conveyor belt
VAN DONKELAAR J A 31.03.76-NL-003365
*+P12 (01.05.79) *BE-852-786 +A01f-11*

A device for removing attached parts of the stalk of a plan e.g. a Brussel sprout plant, comprises an annular member rotatably mounted concentrically of the feed path and having a central opening to allow the plant to pass through it.

Cutters are pivotally mounted on the annular member in a plane perpendicular to the feed path.

The annular member is rotated by an electric motor an the cutters pivot axially inwardly toward the feed path to cut the Brussel sprouts off the stalk. A stalk pulling member is movable from an upstream position between the cutting edges to a downstream position. 23.3.77 as 780442 (11pp1363)

NPIC- ★ D14 38730B/20 ★US 4151-930
Patty feeder removing the bottom patty from a stack - and placing
on conveyor belt by reciprocating pusher
NPI CORP 08.05.78-US-903723
Q36 (01.05.79) B65h-03/24

The bottom patty of a stack is removed by a horizontally reciprocating pusher which discharges the patty through a horizontal slot in a housing which confines the stack. The dislodged patty is then removed by a conveyor belt. A crank arm reciprocates the pusher which moves along an upper path to dislodge the patty and then returns along a lower path ready for the next dislodgement operation. A solenoid lifts the pusher to the upper track prior to commencement of the dislodgement stroke.

The appts. removes the lower patty from a stack of opt. frozen patties and the conveyor discharges it into a cooker. 8.5.78 as 903723 (6pp295)

RAIT/ ★ D14 38739B/20 ★US 4152-079
Dispensing appts. for ice cream and yogurt - has cup with orifices spinning through mixing passage
RAITT E D 14.09.77-US-833357
J02 (01.05.79) B01f-05/06 B01f-15/02

Dispensing appts. in which liqs. are mixed during dispensing to form a thick liq.-like prod. comprises a spinning cup surrounded by a narrow annular mixing passage. The cup has orifices through which the liqs. are flung by centri-fugal force into the mixing passage, the liqs. being thoroughly mixed by this action and by the spinning travel of the cup.

Used for dispensing ice cream and yoghurt mixed with flavouring prods. Rapid mixing is achieved in the short time it takes the liq. to flow into and out of the cup and through the mixing passage. 14.9.77 as 833357 (11pp67)

MODE- ★ D14 38743B/20 ★US 4152-102
Extrusion of food via gated nozzle with extension - maintaining food product orientation after extrusion
MODERN MAID FOOD PR 06.05.77-US-794621
(01.05.79) A21c-11/16

A shaped food prod. is prepd. by extruding a slurry through an extrusion die which is typically cylindrical a peripheral radial aperture. A cutter reciprocates al the die to sever a food prod. e.g. shaped as a torroid. The die is positioned with a vertical axis and the prod. falls away onto a discharge conveyor positioned beneat

Ashaped guide is mounted at the lower end of the die and is pref. cylindrical or frustoconical to guide the pr as it falls away from the die to maintain it horizontal. the guide may be fluted to minimise contact with the fal prod.

The appts. typically forms torroidal onion rings but may be used to form a prod. with alternative curved pr files. The guide ensures that the prod. is horizontal w it engages the discharge conveyor to minimise damage. The guide also prevents bridging of the prod. due to in complete cutting through of large solid particles within slurry as it is extruded. 6.5.77 as 794621 (8pp295)

D15: WATER TREATMENT

FMCF- ★ D15 B/20 ★BR 7706-602
Sewage activation tank assembly - has alternate aeration and circulation rotors at top and bottom of adjacent tanks
FMC FILSAN EQUIP SA 04.10.77-BR-006602
(02.05.79) C02c-01/12

DOMO- ★ D15 B/20 ★BR 7706-613
Equipment for separating oil from water - has belt running over pulleys and partly immersed in mixture
DOMO IND ENG LTDA 04.10.77-BR-006613
J01 (02.05.79) B01d-17/02

GOME/ ★ D15 B/20 ★BR 7706-631
Artificial oxygenator - has chamber formed by double spiral water circulation tubes protruding from cylindrical column
GOMES O M 04.10.77-BR-006631
E36 J01 P34 (02.05.79) A61m-01/02

REGE/ ★ D15 37222B/20 ★CA 1052-918
Waste water plant combining activated sludge and decantation stages - in compact packaged unit of high efficiency, with hydrodynamic balance conditions maintained between inner and outer zones
REGENT J J 07.02.75-CA-219637
(17.04.79) C02c-01/06

The single vessel used comprises a vertical cylindrical tank with downwardly converging, conical base section. Inside the tank, a coaxial sleeve wall separates an inner, aerated, biological treatment zone from a surrounding decantation zone of annular cross-section. The sleeve wall is now extended down so that it closely approaches the tank wall, leaving only a narrow entry gap at the bottom of the deantation zone. Rising flow through this annular zone of progerssively increasing dia. is non-vertical along the wall of the conical base section.

The decantation zone delivers by overflow, pref. into an auxiliary settling chamber fixed on the side of the tank. The settling chamber pref. has a number of caicane type, flow baffles the biological zone is pref. fitted with an aeration turbine and flow chimney. 7.2.75 as 219637 (20pp448)

CIBA ★ D15 37224B/20 ★CH -610-
Wetting and antifoam agent based on anionic surfactant - cor reaction prod. of acid, propylene oxide and opt. poly:ol or amine hydrotropic agent
CIBA GEIGY AG 26.04.76-CH-005202
A25 F06 G02 (F09) (12.04.79) B01d-19/04 C11d-01/02 C1 03/37 D21d-05/26

Wetting and antifoam agent based on anionic surfactants contains 2-50, pref. 10-50, esp. 10-20 (wt.)% anionic surfactant (I), 6-50, pref. 10-50, esp. 15-30% component (II), opt. max. 30, pref. 1-10% silicone oil (III) and 2-92, pref. 2-80, esp. 40-75% water.

(I) has the formula $R-A-(CH_2-CHR'-O)_m-X$ and is in free or salt form (in which R is an 8-22C aliphatic or a 10-22C cycloaliphatic or aliphatic-aromatic hydrocarbyl gp. R' is H or Me.. A is -O- or -CO-O-. X is the radical left after eliminating a OH gp. from an inorganic po -basic oxy-acid, a polybasic carboxylic acid or a carbox alkyl radical. m = 1-20). (II) is scarcely water-soluble and is the reaction prod. of (a1) a 3-10C satd. dicarboxylic or 10-18C (un)satd. fatty acid and (a2) 1,2-propylene oxide (PrO or polypropylene glycol (PPG) or of (a3) a 10-18C (un)satd. fatty acid, (a4) a 3-6 hydric alcohol, a alkylene diamine or a polyalkylene polyamine and (a5) P

The agent is specified for use as antifrothing agent fo aq. systems outside the textile industry, specifically in paper pulp and paper coating compsns., brushing-on colours and sewage. (II) is used as hydrotropic agent instead of the water-insol. aliphatic monoalcohols with mi 8C or their scarcely water-soluble alkylene oxide adduc or mixts. with scarcely water-soluble alkylphenol-alkylene oxide adducts of the parent specification. Their goo hydrotropic properties make them esp. useful in the app -cation of substances (dyestuffs, finishing agents) which are insol. or scarcely soluble in water, eliminating the need for large amts. of solvent and leading to economies 26.4.76 as 005202 Add to 604813 (5pp016)

CIBA ★ D15 37225B/20 ★CH -610-2
Wetting and antifoam agent based on anionic surfactant - con reaction prod. of acid, propylene oxide and opt. poly:ol or amine hydrotropic agent
CIBA GEIGY AG 26.04.76-CH-005203
A25 F06 G02 (F09) (12.04.79) B01d-19/04 C11d-01/02 C1 03/37 D21d-05/26

tain 2-50, pref. 10-50, esp. 10-12 (wt.)% anionic sur-
tant, 6-50, pref. 10-50, esp. 15-35% of components
and (III), opt. max. 30, pref. max. 10, esp. 0.1-2%
icone oil (IV) and 20-92, pref. 20-80, esp. 40-75%
ter (I) has the formula $R-A-(CH_2-CHR'-O)_m-X$ and is
free or salt form (in which R is an 8-22C aliphatic or a
-22C cycloaliphatic or aliphatic-aromatic hydrocarbyl
R' is H or Me. A is -O- or -CO-O-. X is the radical
t after eliminating a OH gp. from an inorganic polybasic
-acid, a polybasic carboxylic acid or a carboxyalkyl
dical. m = 1-20). (II) is a water-insol. or scarcely
ter-soluble reaction prod., with a mol. wt. of 2000-
00, of (a1) a 1-6C, 1-6 hydric alcohol, a monoalkyl (a1)
noamine, an alkylene diamine or a polyalkylene poly-
ine and (a2) 1,2-propylene oxide (PrO).
(III) is scarcely water-soluble and is a reaction prod.
(b1) a 3-10C satd. dicarboxylic or 10-18C (un)satd. fatty
id and (b2) PrO or polypropylene glycol (PPG) or of (b3)
10-18C (un)satd. fatty acid, (b4) a 3-6 hydric alcohol
alkylene diamine or a polyalkylene polyamine and (b5)
O.

The agent is specified for use as antifrothing agent for
. systems outside the textile industry, specifically in
per pulp and paper coating compsns. brushing-on col-
rs and sewage. (III) is used as hydrotropic agent in-
ead of the water-insol. aliphatic monoalcohols with min.
C or their scarcely water-soluble alkylene oxide adducts
mixts. with scarcely water-soluble alkylphenol-alkylene
ide adducts of the parent specification. Their good
drotropic properties make them esp. useful in the appli-
tion of substances (dyestuffs, finishing agents) which
e insol. or scarcely soluble in water, eliminating the
eed for large amts. of solvent and leading to economies.
.4.76 as 005203 Add to 604813 (6pp016)

ANG- ★ D15 37238B/20 ★DS 1802-844
quid metering device - with electromagnet-driven pump operated
cam mechanism producing pulses
LANG APP GMBH 04.01.68-OE-001086
J04 M14 (10.05.79) B01j-04/02

device for metering a chemical additive for a water pipe,
r the purpose of softening or corrosion prevention, is
ontained in a housing which is attached to a flange of a
ater meter in a vertical position. The housing holds a
iston pump and a chemical in the lower part, and an elec-
romagnet to operate the pump in the upper part. A cam
echanism driven by the water meter closes contacts to
rovide the current pulses to the electromagnet.

This device is not expensive to mfr. and operates for
ong service periods without maintenance. It provides a
imple and accurate metering method for such chemicals.
2.10.68 as 802844 (7pp39).

ANVR D15 17710S/10 =DS 2110-205
Removal of oil from industrial waste waters
AGENCE NAT VALORISATION (ABA /) 03.03.70-FR-007641
*H04 (10.05.79) *FR2037-575 C02c-05/08*

Waste waters and recycled waters are regenerated and
urified to remove oils (I) contained in them, (I) being
emulsified or dissolved with or without emulsifying agents.

Waters to be purified or regenerated are treated with
powdered or spherical oleophilic resins which have been
produced from ion-exchanger resins (II) by fixing organic
ions (III) on (II). Pref. cationic- or anionic resins (II) are
used. Pref. any pair of resin (II) and ion (III) are used
which provides oleophilic properties. Pref. the oleophilic
resins used have been produced in conc. salt solns.
3.3.71 as 110205 (3pp481).

DIAS D15 01763W/01 =DS 2356-845
Electrosanitizing waste water - by agitation and maceration during electrolysis
DIAMOND SHAMROCK CORP 21.06.73-US-372085
*+Q24 (10.05.79) *US3856-642 C02c-05/12*

A sewage disinfection and oxidn. plant, esp. for use in
boats and caravans, is based on electrolysis of added alk-
ali chloride and a shredder. The container, made of e.g.
PVC, is sepd. by a partition into two chambers which are
joined by a U-pipe. The first chamber contains the shred-
der (5000-7000rev/min.) and horizontal electrodes, att-
The electrodes extend into the
second chamber with a mixer impeller (1000-2000rev./min.).

The chlorine developed, e.g. from an NaCl concn. of 25-30g/l. results in an outflow of perfectly disinfected water. The plant requires little maintenance or effort to operate it. 14.11.73 as 356845 (4pp39).

CAST/ D15 40357V/22 =DS 2357-707
Floating effluent treatment plant for offshore - made of reinforced concentric rings with flexible walls held by anchor
CASTELL W G 26.11.73-GB-049961 (21.11.72-GB-053732)
*+Q24 Q42 (10.05.79) *DT2357-707 C02c-01/26*

A system for the treatment of sewage consists of a circular outer basin which is open at both ends and has flexible walls which float on surface waters. Flexible webs connect the walls to the walls of a concentric settling chamber, also made of a flexible material. This chamber has a conical bottom with a raised cone in the centre, above which a vertical distributor pipe is situated.

The sewage enters the outer basin where compressed air can be introduced to aerate it. A pipe directs it to the central distributor pipe. Sludge is deposited in the annular conical bottom and clarified water is discharged by an overflow. This effects an efficient clarification before discharge into river or tidal waters. 19.11.73 as 357707 (4pp39).

UNIC D15 05540V/04 =DS 2365-749
Sewage treatment plant - using activated sludge and two aeration stages
UNION CARBIDE CORP 02.04.73-US-347398
*(10.05.79) *BE-801-758 C02c-01/06*

Effluent water is treated with gas contg. > 50 vol. % O_2 for two-stage biological oxidation in the presence of activated sludge. The liq. from the water and sludge is contacted with the gas in an enclosed first gasing zone in which one of the two media is circulated. The partially oxidised liq. and O_2-impoverished gas are transferred to a second enclosed gasing zone separately from each other, where they are continuously mixed with each other and one of the media is circulated. Liq. removed from the second zone is sepd. into clarified water and activated sludge in a clarification zone, and at least part of the sludge recycled to the first gasing zone.

The clarification zone is arcuate, with an arc length of 90-330°. The liq. from the second gasing zone is fed radially through the clarification zone directed from the inner arced boundary of small radius of curvature to the outer arced boundary of larger radius of curvature concentric with the first, which has a spill-over edge to allow water to separate from the sludge.

The velocity of liq. flow through the clarification zone is defined by the equation $\frac{V_E}{V_I} = \left(\frac{Q}{Q+R}\right)\left(\frac{R_1}{R_2}\right) = 0.25-0.70$,
where V_E = radial velocity of liq. at the outer spill over edge, V_I = radial velocity of liq. at the inner arced boundary. Q = volume per unit time of liq. overflow out of the clarification zone, R = vol. per unit time of activated sludge recycled from the clarification zone to the first gasing zone, R_1 = radius of curvature of the inner arc, and R_2 = radius of curvature of the spill-over edge. 6.4.73 as 365749 Div. ex 2317356 (10pp913).

AGRO- D15 27495W/17 =DS 2456-953
Biological purification of highly polluted liquids - with continuous sepn and recycling of biological sludge
AGROTECHNIKA NP 06.08.74-CS-005558 (04.12.73-CS-008336)
*(10.05.79) *BE-822-556 C02c-01/06*

A plant for the biological treatment of sewage comprises a vertical tank which is divided by a funnel-shaped partition, open at the bottom, into an upper clarification chamber with collecting channels for the clarified water, and a lower fermentation chamber. The upper chamber communicates only by the bottom opening in the funnel with an annular influent channel and with the fermentation chamber contg. a paddle mixer and an aerator. The influent channel is bounded by an open-ended funnel at a distance from the conical partition.

The plant achieves improved sepn. efficiency of the clarification chamber. 2.12.74 as 456953 (4pp39).

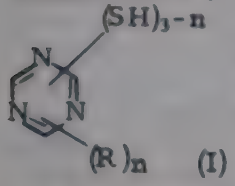
DEGS D15 23489A/13 =DS 2642-198

Cadmium separation from water contg. chelating agents - by pptn. with mercapto-triazine cpds. in presence of ferric ions

DEUTSCHE GOLD & SILBER 20.09.76-DT-642198

*E32 (E19) (10.05.79) *DT2642-198 C01g-11 C02c-05/02*

Removal of Cd^{2+} ions from waste water or aq. solns., opt. contg. nitrilotriacetic acid, EDTA and/or diethylenetriamine-pentaacetic acid and/or their anions as complexing agents, comprises pptn. of complexes with triazine-thiols of formula (I) in the presence of Fe^{3+} ions, (at least equimolar amts.) at pH 4-10.


(I)

In (I) R is H, 1-3C alkyl, NR_1R_2 or OR_3, in which R_1, R_2 and R_3 are each H, 1-6C alkyl or Ph; and n is 0-2. Pref. the pptn. is conducted in the presence of 10-200(50-100)mole % excess Fe^{3+} ions.

20. 9. 76 as 642198 (4pp047).

FARH ★ D15 37247B/20 ★DT 2748-638

Treatment of waste water contg. toxic materials etc. - by mixing with nitric acid or soluble nitrate(s) and heating prior to biological degradation

HOECHST AG 29.10.77-DT-748638

(10.05.79) C02c-05/04

Waste waters contg. dissolved or suspended toxic and/or biologically inactive organic cpds. are mixed. with HNO_3 or soluble nitrates and heated to 100-250 (180-220)°C. After wet oxidn. the waste waters are cooled and subjected to biological degradation of residual contaminants by activated sludge process.

The waste waters may be prodn. waste waters from prepn. of organic intermediates or end-prods. esp. from prodn. of plant protective agents, partic. prepn. of fungicides, e.g. 2-carbomethoxyamino-benzimidazole (I). Small HNO_3 quantities can destroy the biologically toxic waste water components, and can render the waste waters biologically degradable. 29.10.77 as 748638 (9pp200)

LINM ★ D15 37266B/20 ★DT 2749-265

Two/stage biological sewage treatment - recirculating high-oxygen waste gas from second inorganic to first organic conversion stage

LINDE AG 03.11.77-DT-749265

(10.05.79) C02c-01/06

A two-stage biological sewage treatment system reduces in the first stage the organic and in the second stage the inorganic contaminants. Oxygen or a high-oxygen gas is introduced in the second stage and the high-oxygen outflow is directed into the first stage. The outflow, extracted from the second stage, is so dimensioned that the oxygen demand of the first stage is covered.

This ensures a reliable nitrification of the sewage without major engineering efforts. 3.11.77 as 749265 (9pp39)

KUBL- ★ D15 37340B/20 ★DT 2750-028

Sewage sludge filter press system - with starting phase at quarter final pressure and press phases in pressure steps

FA KUBLER H 09.11.77-DT-750028

(10.05.79) C02c-03

In a multi-frame filter press operation, for sewage sludge the pressure threshold in the starting phase rises to 25% of the final figure. The following phase in which sludge is added to the press chambers comprises ten or more press cycles, the pressure is raised in steps to the final threshold. Subsequent to the starting phase, the press chamber pressure is allowed to drop to slightly above ambient.

The result is a filter cake with a much higher solids content (50%) and greater strength. The overall operating costs are less than with conventional filter press systems. 9.11.77 as 750028 (52pp39)

BADI ★ D15 37341B/20 ★DT 2750-029

Platinum gp. metal-doped electrolysis electrode for amalgam cells - contain niobium and iron gp. metal alloy and tantalum or derivs.

BASF AG 09.11.77-DT-750029 (00.00.73-DT-346055)

E36 J03 M26 (10.05.79) C25b-11/04

In parent patent, electrolysis electrodes (a) contain (i) a W alloy with Fe gp. metals and also (ii) Ta, Ta boride,

are doped, on surface, with Pt gp. metals, esp. Rh.
this addn. W is replaced by Nb.

The anodes are used in amalgam cells, e.g. for el
rolysis of dye waste waters, alkali chloride solns. H
and HCl. H_2 overvoltage is not reduced on short-circ
ing with the Hg cathode. 9.11.77 as 750029 Add to
2346055 (7pp200)

AVWA- ★ D15 37475B/20 ★DT 284

**Treatment of effluent liquors from demineralisation plant -
large vessel with multiple level detection and automatic run/
mixed acid and alkaline effluents through dolomite bed**

ADV WATER SERVICES 09.11.77-GB-046655

J02 (10.05.79) B01f-15/04

System is for treatment of a controlled volume of a fi
liquid (esp. an acidic liquor) with a controlled volume
second liquid (esp. an alkaline liquor). This is carri
out in vessel into which the liquids are admitted using
-el detection probes mounted at various levels in the
sel to control the quantities admitted. Agitation is pr
ed by means an air inuection pipe. There is an outlet
valve controlling run off.

The level detection system initiates agitation when
various levels are reached. It also opens the outlet va
when the cycle is complete. The agitation is commen
once all the first liquid has been added and the second
being added. The run off flows through a dolomite bed
remove residual alkanity. System is esp. for use with
water demineralisation plants. 9.11.78 as 848688 (14
1053)

BADI D15 37341B/20 =EP ---1

**Platinum gp. metal-doped electrolysis electrode for amalgam c
contain niobium and iron gp. metal alloy and tantalum or derivs**

BASF AG 09.11.77-DT-750029

*E36 J03 M26 (16.05.79) *DT2750-029 C25b-11/08*

D/S: E(BE, DT, FR, GB).

Electrolysis electrodes as described in DT 2346055
which (a) contain (i) a W alloy with Fe gp. metals and
also (ii) Ta, Ta boride, Ta carbide and/or Ta alloys w
Fe gp. metals, and (b) are doped, on the surface, with
gp. metals, esp. Rh, are modified by replacing W with

The anodes are used in amalgam cells, e.g. for elec
rolysis of dye waste waters, alkali chloride solns.,
H_2SO_4 and HCl. H_2 overvoltage is not reduced on short
circuiting with the Hg cathode.

14.10.78 as 101152 (8pp200).

(G) ISR: FR1290488; DT1927059; DS2346055; DT181252

FARH D15 37247B/20 =EP ---1-

**Treatment of waste water contg. toxic materials etc. - by mix
with nitric acid or soluble nitrate(s) and heating prior to biolog
degradation**

HOECHST AG 29.10.77-DT-748638

*(16.05.79) *DT2748-638 C02c-05/04*

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Waste waters contg. dissolved or suspended toxic and/o
biologically inactive organic cpds. are mixed with HNO_3
or soluble nitrates and heated to 100-250 (pref. 180-220
C. After wet oxidn., the waste waters can be cooled and
subjected to biological degradation of residual contamin
ants by activated sludge process.

The waste waters may be prodn. waste waters from
prepn. of organic intermediates or end-prods., esp. fro
prodn. of plant protective agents, partic. prepn. of fungi-
cides, e.g. 2-carbomethoxyamino-benzimidazole (I).

Small HNO_3 quantities can destroy the biologically
toxic waste water components, and can render the waste
waters biologically degradable.

21.10.78 as 101189 (11pp200).

(G) ISR: FR2164894; DT2220385; US3984311; US39779
FR559515.

NC D15 35518B/19 =EP ---1-811

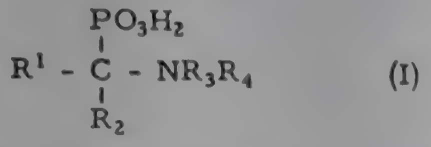
-Sulpho-hydroxy-alkane amino-alkane phosphonic acids - useful complexing agents for metal ions, e.g. in water treatment

BENCKISER-KNAPSACK 28.10.77-DT-748366

*E11 F06 (F09) (16.05.79) *DT2748-366 C07f-09/38 +C02b-05/06*

/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

-Sulphohydroxyalkane-aminoalkane-phosphoric acids of ormula (I) and their salts are new:



$$R^1 - \overset{\displaystyle PO_3H_2}{\underset{\displaystyle R_2}{\overset{|}{\underset{|}{C}}}} - NR_3R_4 \qquad (I)$$

here R^1 is H, 1-11C alkyl, aryl, aralkyl, cycloalkyl, ower aminoalkyl, hydroxyalkyl, carboxyalkyl or alkylhosphonic acid residue;

R^2 is H or PO_3H_2; R^3 is $C_nH_{2n=1}(OH)SO_3H$ or lower alkylhosphonic acid residue; R^4 is H (if $R^3 \neq$ alkylphosphonic cid residue) or $C_nH_{2n-1}(OH)SO_3H$ (n is 3-18).

(I) are complexing agents for di- and poly-valent metal ons. They have high water solubility (e.g. 100g/100 ml) and are stable to hydrolysis at high temp. Applications include treating hard water or textile treatment baths, in papermaking and in tanning; they can also be used to stabilise hardness by the "threshold method''.

27.10.78 as 101242 (25pp950).

(G) ISR: DT2504724; US4085134; DT2531104; DT2325829.

MIFO ★ D15 37588B/20 ★FR 2400-200

Analysis of aq. soln. for mineral and organic content - involves electrolysis at reference temp. and pH levels

SOC MINES FOND ZINC SA 09.08.77-FR-024550

J04 R16 (13.04.79) G01n-27/46 G01n-33/18

A method is used for analysing the mineral and organic elements present in an aq. soln. A sample of soln. is selected and adjusted to a preset pH and temp. The sample is placed in an electrolysis chamber having three electrodes; a reference potential electrode; an auxilliary electrode; and a "turning"electrode.

A predetermined periodic signal is applied to the "turning"electrode while the intensity of the electrolysis current flowing in the analysis chamber between the "turning" electrode and auxilliary electrode is recorded. 9. 8. 77 as 024550 (21pp1316).

PARN/ ★ D15 37595B/20 ★GB 1545-787

Clarification of waste liquid and sludge - by upflow through filter bed with backwashing without draining incompletely settled sludge

PARNABY D 21.05.75-GB-021945

J01 (16.05.79) B01d-29/08

A filtering appts. comprises a tank with a perforate support for a filter bed spaced above the bottom of the tank which has a sludge outlet. It is positioned beneath a weir over which clarified liquor flows into a trough.

Liquor-borne sludge is admitted through a conduit and then flows upwardly through the filter bed, the sludge settling on the tank bottom while the clarified liquid leaves over the weir. A pressure sensor detects a predetermined resistance to movement of liquor through the filter bed. A paddle rake is positioned in the bottom of the tank. The sensor is operatively connected to a valve venting gas from the tank.

Undue discolouration of the treated liquor is prevented and forced channeling through the filter bed is minimised. 21. 5. 75 as 021945 (4pp295)

ATAR- D15 85290X/46 =GB 1545-829

Mixing gases into liquids - using impingement plate on end of pipe to break up gas bubbles

ATARA CORP 21.04.75-CA-225103

*J02 (16.05.79) *DT2616-395 B01f-03/04 B01f-05*

Device for entraining gas in liq. , e. g. chemical liq. or sewage, includes a fuel for conducting the gas-entrained liq. vertically towards an exit, and impact plate being fixed over the fine exit and spaced at a distance not less than 1" nor greater than twice the exit dia.

The plate lies transverse to the flue axis, and may be cap-shaped. The flue is pref. funnel-shaped with its narrow end adjacent the plate. The plate is at a spacing allowing the max. impact and shattering of the gas-entrained liq. when treating sewage, this results in untreated incre-sed aeration efficiency. 15. 4. 76 as 015520 (7pp1379)

UKAT D15 66006Y/37 =GB 1545-85

Apparatus for desalinating water

UK ATOMIC ENERGY AUTH 28.01.76-GB-003417

*J01 (16.05.79) *J52093-667 C02b-01/12*

Appts. for reducing the impurity content of impure water by the immiscible refrigerant freeze process includes a freezer section producing ice crystals by boiling the refri-erant, e. g. butane, in the water, and a disengagement section where entrained refrigerant is sepd. from the cry-tals-

The freezer sections includes tiers of passageways where an ice crystal slurry forms which passes to the disengagement section. Purified water is recovered from th crystals. All the operations are effected in a single piece of appts. 15. 12. 76 (7pp1379)

HARS- D15 66697Y/37 =GB 1545-917

Floating scum skimmer - comprising a blade carried between a pai of variable volume ballast chambers

HARSCO CORP 27.08.75-US-608286

*(16.05.79) *US4046-693 C02c-01/38*

Appts. for treating biological waste includes a clarifier tank traversed by a movable bridge above the level of liq. The bridge carries a float and a skimmer blade, both vertically movable. The buoyancy of the float may be adjusted to a desired value; when the float rises above a predetermined level ralative to the bridge, it lifts the skimmer blade clear of the liq.

The float and skimmer move vertically together, the weight of the skimmer being carried by the float. The appts. prevents the build-up of scum on the surface e. g. in a sewage treatment plant. 14. 5. 76 as 019998 (13pp1379)

UKAT ★ D15 37607B/20 ★GB 1546-179

Module for reverse osmosis - formed by winding a membrane rod round a drum and moulding around a rod section

UK ATOMIC ENERGY AUTH 06.12.76-GB-050863

A88 J01 (16.05.79) B01d-13 B29d-31

Module of reverse osmosis rods is formed by winding a membraned, grooved rod round a drum which has one or more throughs extending longitudinally along its length locating a cover over the outside of the, or each trough, to form therewith a chamber into which is injected a casting settable material to form a moulded member, and cutting the windings of the reverse osmosis rod to form a number of rods interconnected by a common moulded member. Pref. the common moulded member is made of a silicone rubber.

The module comprises grooved rods, covered in a reverse osmosis membrane with the ends of the membranes set in a common manifold member. 1.12. 77 (6pp50)

TALA- ★ D15 B/20 ★HU T016-327

Disposal of liquid fertiliser and urban effluent - by undersoil irrigation

TALAJMUVELESI KUTAT 12.12.74-HU-TA1334

C04 P11 (28.04.79) A01c-03

MELY- ★ D15 B/20 ★HU T016-379

Water clarification and/or softening plant - with fail-safe, efficient operation

MELYEPITESI TERVEZO 06.02.76-HU-ME1944

(28.04.79) C02b-01/22

KARD/ ★ D15 B/20 ★HU T016-380

Detoxification of aq. effluents from surface treating plants - using process capable of recovering useful byproducts

KARDOS T 16.08.74-HU-KA1424

M14 (28.04.79) C02c-01

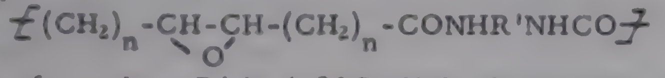
JAPS ★ D15 37709B/20 ★J5 4043-298

Hydrophilic polyamide deriv. mfr. - by reacting a nucleophile with an epoxy-contg. polyamide to open the epoxy ring

JAPAN SYNTHETIC RUBBER 09.09.77-JA-109263

A23 F06 J01 (A87 A88 A96 D22) (05.04.79) C08g-69/48

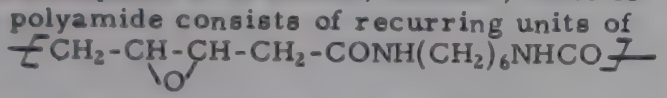
A hydrophilic polyamide deriv. having a hydroxyl gp. is prepd. by reacting a nucleophile with an epoxy-contg. poly-amide of recurring unit (I) and 0-50 mol. % (per unit (I)) of recurring unit $\lbrack R''\text{-}CONHR'NHCO \rbrack$ to open the epoxy ring.



$$\lbrack (CH_2)_n\text{-}\underbrace{CH\text{-}CH}_{O}\text{-}(CH_2)_n\text{-}CONHR'NHCO \rbrack$$ (I)

In the formulae, R' is 4-20C aliphatic or aromatic diamine residue; R'' is 4-18C aliphatic or aromatic dicarboxylic acid residue; and n = 1-8).

Pref., the nucleophile is an amine, alcohol, thiol or water; and the polyamide consists of recurring units of formula (II):-



$$\lbrack CH_2\text{-}\underbrace{CH\text{-}CH}_{O}\text{-}CH_2\text{-}CONH(CH_2)_6NHCO \rbrack$$

In an example, the hygroscopic property of a polyamide deriv. consisting of 3,4-epoxyadipic acid component and hexamethylene diamine component is 3 times that of nylon 6. These derivs. are useful as antistatic agents for fibres, reverse osmosis films, chelating resins and medical materials. 9.9.77 as 109263 (4pp78)

SHIE ★ D15 37779B/20 ★ J5 4043-871

Sepg. water soluble organic acid from inorganic acid - e.g. sepg. a waste acid mixt. contg. acetic acid, nitric acid and hydrogen fluoride

SHINETSU CHEM IND KK 16.09.77-JA-111294

J01 (06.04.79) B01d-11/04 C02c-05/02

Process for sepg. water soluble organic acid from inorganic acid is characterised by selectively passing water-soluble organic acid into inactive solvent soln. of aforementioned water insol. carboxylic acid by contacting mixed aq. soln. consisting of ≥1 inorganic acid and ≥1 water soluble organic acid, and passing aforesaid water soluble organic acid into water by contacting the resulting inactive solvent soln. of water insol. carboxylic acid contng. water soluble organic acid with water.

The organic acid recovered contains low amount of inorganic acid, and is relatively pure. If necessary, it may be conc. and reused.

In an example, mixed waste acid consisting of acetic acid (250 g/l), nitric acid (397 g/l), and hydrogen fluoride (125 g/l) was fed into intermediate stage of mixer settler having twenty stages at the rate of 10 ml/min. and kerosene soln. of Versatic acid (RTM) (2 mole/1.) was fed into first stage at the rate of 110 ml/min. and water was fed into twentieth stage at the rate of 5 ml/min. The components of soln. obtd. from the outlet of first stage were as follows: acetic acid: 0.29 g/l.; nitric acid: 322 g./l; hydrogen fluoride: 101 g/l. 16.9.77 as 111294 (4pp96)

HITG ★ D15 37780B/20 ★ J5 4043-872

Preventing scale formation in sea water evaporator - involves precipitating calcium carbonate with combustion gas contg. alkali salt and carbon di:oxide gas

BABCOCK-HITACHI KK 16.09.77-JA-110531

(06.04.79) B01d-01/26 C23f-14/02

Process for preventing scale formation in a sea water evaporator comprises sepg. calcium carbonate formed by supplying combustion gas contng. alkali salt and CO_2 gas into sea water contain in a reactor and supplying the resulting unsatd. sea water into a multi-stage water prodn. appts.

Introduction of combustion gas forms bubble and bring about a stirring effect. Removal of calcium salt inhibits the formation of gypsum. 16.9.77 as 110531 (4pp96)

KUBI ★ D15 37783B/20 ★ J5 4043-875

Activated carbon adsorption tower control - with replacement of activated carbon in dependence on concn. of organics in treated water

KUBOTA KK 14.09.77-JA-112323

E36 J01 (06.04.79) B01d-15 C02c-05/02

The adsorption tower is used to remove organic materials from waste water. Used carbon is replaced with fresh carbon when the concn. of organic substances in the treated water exceeds a predetermined value which is obtd. by determining the concn. of organic substances and inorganic reductive substances in the original and treated waters. Adsorption capacity of the tower is maintained. 14.9.77 as 112323 (5pp96)

JAPG ★ D15 37787B/20 ★ J5 404

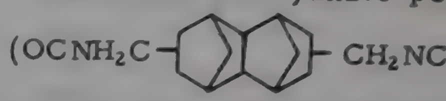
Semipermeable membrane prodn. for reverse osmosis ultrafiltration - by contacting poly:amine membrane on p support with a poly:cyclic di:isocyanate

JAPAN GEON KK 14.09.77-JA-110999

A88 J01 (06.04.79) B01d-13

The method comprises contacting a polyamine membra on a liquid permeable and porous support with an aliph polycyclic diisocyanate which reacts with amino or imi group contained in the polyamino membrane, thereby o taining a crosslinked semipermeable membrane.

In an example, a DMF soln. of polysulphone was pou on a glass plate, and immersed in a coagulation bath to obtain a polysulphone supporting film. The supporting film was immersed in an aq. soln. of 1% of polyethylen imine to form a polyethylene film on the supporting film A hexane solution of 3; 6 or 7-besmethanoisocyanate-pe hydro-1. 4; 8. 5-naphthalene



was poured on the polyethylene film to crosslink the film The resulting crosslinked film was dried in air to obtai crosslinked semipermeable membrane. The semipermeable membrane was used in reverse-osmosis of an aq. soln. of NaCl. 14.9.77 as 110999 (10pp51)

AGEN ★ D15 37899B/20 ★ J5 4044-3

Anaerobic digestion of organic wastes - by heating slurry, sepg. in solids and liquids, digesting liquids, sepg. slurry, etc.

AGENCY OF IND SCI TECH 14.09.77-JA-109973

(07.04.79) C02c-01/14

In anaerobic digesting method for organic wastes, e.g. excess activated sludge, wastes from agriculture and liv stock industries, urban refuges, etc., (a) a slurried organic waste is heated at > 60 °C. and pH of < 3.5 or > 8.0; (b) the slurry is sepd. into solid content and liquor conte (c) the liquor content is anaerobically digestal with bacteria under a neutral to weak alkaline condition; (d) the slur is sepd. into digested sludge and liquor; (e) the liquor is further sepd. into solid and treated liquor through an aer bic treatment; (f) part of the treated liquor is contacted with the solid content from (b); (g) the mixt. is sepd. into washed residue and washed liquor; and (h) the washed liquor is added to the organic wastes to be used in (a).

The method digests anaerobically the digestible components in wastes at higher digesting rate and with lower consumption of power. 14.9.77 as 109973 (5pp117)

GNZE ★ D15 37900B/20 ★ J5 4044-35

Treating waste water from dyeing - by decarboxylation prior to oxidn. with hydrogen peroxide

GUNZE KK 12.09.77-JA-110983

(07.04.79) C02c-05/04

The dyeing waste water is pretreated, prior to the treatment involving oxidation by hydrogen peroxide in the presence of iron salt catalyst. The pretreatment comprises decarboxylation by the addition of an inorganic acid, e.g. HCl, sulphuric acid, etc. with a 10 to 20 min. stirring, and at the same time pH is reduced to 2 to 5, (~4).

This method can greatly reduce the amt. of the chemicals, (H_2O_2, $FeSO_4 . 7H_2O$, and $Ca(OH)_2$), which are conventionally used and also greatly reduce the amount of sludge generated, to approx. 1/3, as well as providing high purity treated water. 12.9.77 as 110983 (3pp117)

GNZE ★ D15 37901B/20 ★ J5 4044-353

Treating waste water from dyeing processes - by oxidising with hydrogen peroxide using iron sulphate hepta:hydrate catalyst which is recovered after sludge sepn.

GUNZE KK 12.09.77-JA-110984

(07.04.79) C02c-05/04

Method comprises treating the waste water in an oxidation tank with H_2O_2 and $FeSO_4 . 7H_2O$ catalyst for approx. 1 hr. with stirring and passing the treated water to a sedimentation tank where sludge is formed by the addition of NaOH and a small amt. of high polymer coagulant. The sludge, after being sepd., is treated with a chemical, e.g. hydrochloric acid or sulphuric acid, to dissolve the iron salt catalyst present in the sludge, for recovering the catalyst, either after being incinerated or as it is, while the treated ste water from the sludge sepn. tank is released, after ng neutralised with an inorganic acid, to the outside.

Method reduces the amt. of sludge generated and perts recovery of the iron salt catalyst. 12.9.77 as 110984 p117)

SU- ★ D15 37902B/20 ★J5 4044-356

nitrification of treated human waste liquor - by activated sludge thod, using sedimentation, digestion, denitrification, dimentation and decomposition steps

HOSUI ENGINEERING K (ASAN) 14.09.77-JA-109928

(07.04.79) C02b-01/10 C02c-01/06

e supernatant liquor of the treated human wastes is, in se where there are great amounts of SS components, put a preliminary sedimentation tank (I). The separated quor in (I) is then put in a digestion tank under a condition an ammonia load of 0.2-0.5 kg. N/m^3. day for digestion th the activated sludge recovered at a digesting sediment tion tank.

The digested liquor is then put in a denitrification tank der a condition of inorganic nitrogen load of 0.7-1.1 kg. /m^3. day for denitrification with the activated sludge revered at a denitrifying sedimentation tank. The denitried liquor is then put, after degassing, in a sedimentation nk, and lastly the supernatant liquor separated is put in a mplete decomposition tank to remove nearly all nitrogen aerobic biological treatment, where part of the treated quor is recycled and the rest is discharged.

This method is capable of removing nitrogen present in e treated human wastes liquor to the extent of <3 ppm., ith a treatment efficiency of > 99%. 14.9.77 as 109928 pp117)

OKE ★ D15 37923B/20 ★J5 4044-595

etermn. of the activity of active sludge - comprises determining e max. or min. substrate loading at which the rate of oxygen ilisation remains constant

TOKYO SHIBAURA ELEC LTD 16.09.77-JA-111309

J04 R16 (09.04.79) G01n-33/18

method of determining the activity of activated sludge in ixed liquid contg. activated sludge and substrate (i.e. tain substances) comprises determining the velocity of xygen utilisation of the mixed liq. in such a state that the ad of the substrate (i.e. stain substances) is the minimum or the maximum at which the load does not affect the ctivity of activated sludge, and evaluating the activity om the determined value of oxygen utilising velocity.

The activity of activated sludge can be very simply and ecisely determined in a short time, and activated sludge rocess can be controlled in suitable state by grasping imply the amt. of dissolved oxygen in aeration tank and e activity of activated sludge.

Substrate (stain substances) can be oxidatively decomosed by microorganism in activated sludge process. The ethod is based on the finding that the oxygen utilising elocity by microorganism becomes a constant saturated alue independent of the load of substrate in the minimum tate or the maximum state of load of substrate and the oxygen utilising velocity is useful as a measure of the actiity of activated sludge. 16.9.77 as 111309 (4pp50)

ITA ★ D15 38071B/20 ★J5 4045-499

emoving surfactant from radioactive waste liq. - prior to olidification with cement, by boiling, adding sulphuric acid and xidising

HITACHI KK 16.09.77-JA-110569

K07 L02 (10.04.79) C02c-05 G21f-09/16

adioactive waste liquid is treated to suppress hindrance f hydration due to a surfactant. The radioactive waste iquid is boiled. Sulphuric acid may be added to the boiled adioactive waste liquid. An oxidising agent is added to he radioactive waste liquid to decompose the surfactant. means for precipitating the surfactant and collecting it may be used. Thereafter, the radioactive waste liquid is olidified with cement.

It is possible to prevent lowering of the strength of a ement-solidified body because a surfactant contained in adioactive waste liquid is treated by various means. The amount of the surfactant is limited to < 3 wt./%. 16.9.77 s 110569 (4pp86)

KAWI ★ D15 38112B/20 ★J5 4045-674

Treating solns. having high concn. of sulphur ions - by adding sodium hypochlorite, removing sulphur, aerating the soln. with ozone and adjusting pH

KAWASAKI STEEL KK 20.09.77-JA-112132

(11.04.79) C02c-05/04

Sodium hypochlorite is added to a soln. with high COD and which contains Sulphur ions (S^{2-}, $S_2O_3^{2-}$, SO_3^{2-}, etc.) until the oxidn.-redn. potential reaches -400 mV in order to reduce the COD to 30-100 ppm; the deposited sulphur is removed; the soln. is aerated with ozone to oxidise S^{2-} etc. to SO_4^{2-} and to further reduce the COD; and the pH is adjusted by acid (such as sulphuric acid) to meet the requirement for disposal of waste water.

The process does not produce residual chlorine. 20.9.77 as 112132 (3pp55)

HITF ★ D15 38113B/20 ★J5 4045-675

Water-contg. waste oil treatment - by passing oil into evaporator, heating so water evaporates, and condensing steam into condenser

HITACHI SHIPBLD ENGG KK 19.09.77-JA-112982

J01 (11.04.79) C02c-05

A waste oil is temporarily stored in a waste oil tank and supplied by a pump to an upper part of a film evaporator. The waste oil falls in the evaporator and is heated to evaporate the water so as to form a steam. The steam is introduced from the upper part of the evaporator to a condenser and recovered as water from the condenser.

The oil sepd. from the waste oil under evapn. is taken out from the lower part of the evaporator and temporarily stored in an oil tank. The oil is supplied to oil burners in a burning furnace by an oil pump as needed, so that it is burned in the furnace to recover the generated heat in a waste heat boiler. A steam generated in the waste heat boiler is supplied as a heating source to the evaporator.

The water and the oil may be continuously and effectively sepd. from the waste oil to recover and reuse the water. The waste oil may be completely treated without using other chemicals and energy. 19.9.77 as 112982 (2pp35)

KUBI ★ D15 38115B/20 ★J5 4045-677

Dewatering of conc. sewage - with addn. of cohesion agent before sepn. of sewage cake from liq.

KUBOTA KK 16.09.77-JA-111812

(11.04.79) B01j-01 C02c-03

A cohesion agent is injected into a conc. sewage and the sewage is transferred under pressure by means of a feed pump directly to a dewatering machine, so that the sewage is dewatered to separate the liquid and a sewage cake. The cohesion agent is injected into the sewage at the front and back of the pump. The need for mixing is eliminated.

Costs and space requirement are reduced. The amt. of cohesion agent injected is reduced because the cohesion agent and the sewage are mixed using the rotary blades of the pump and disturbances due to feed under pressure in pipelines. 16.9.77 as 111812 (2pp35)

ASAH ★ D15 38144B/20 ★J5 4045-962

Waste water treatment - using biochemical (de)nitrification and ion exchange to remove organic materials, nitrogen cpds. and phosphorus cpds.

ASAHI CHEMICAL IND KK 16.09.77-JA-111456

(11.04.79) C02c-01/02

Method comprises (1) adding recycling water from the nitrification step to the waste water to be treated to decompose NO_3-N or NO_2-N by the action of bacteria composed mainly of denitrification bacteria under anaerobic conditions and (2) adding waste effluent used for the regeneration of ion-exchange resin to the treated water obtd. in the above initial denitrification step to convert NH_3-N into NO_3-N or NO_2-N by the action of bacteria composed of nitrification bacteria under aerophilic conditions.

Method further comprises (3) recycling a portion of the treated water obtd. in the above nitrification step to the initial denitrification step, adding an organic carbon source to the remainder and removing NO_3-N or NO_2-N by the action of bacteria composed mainly of denitrification bacteria under anaerobic conditions; (4) adding a coagulant, e.g. Al sulphate etc. to the treated water obtd. in the above denitrification step to remove PO_4-P; (5) contacting the P-removed treated water with an ion-exchange resin to remove NH_4-N; and (6) regenerating the satd. ion-exchange resin with aq. -NaCl soln., and recycling the waste regenerating effluent to the nitrification step. 16.9.77 as 111456 (5pp34)

NAGO- ★ D15 38145B/20 ★J5 4045-963
Biological treatment of waste water contg. phenol(s) - from coking plants, phenolic resin plants, etc., by oxidative degradation using oleobacidium
NAGOYA DAIGAKU-CHO 17.09.77-JA-111874
A21 H09 (11.04.79) C02c-01/02

Phenols-contg. waste water, e.g. discharged from coking plants and phenol resin-producing plant etc., is purified by biological oxidn. degradation by culturing eumycetes belonging to oleobacidium group, i.e. oleobacidium sp. No. 14 in a suitable culture medium, and adding the cultured microorganism to the waste water to be treated, followed by aeration, or adding the activated sludge to the waste water, followed by aeration.

In an example, 300 ug/ml. of phenol (as the carbon source) was initially added to a culture medium comprising 0.5% of NH_4NO_3, 0.25% of KH_2PO_4, 0.1% of $MgSO_4.7H_2O$, 0.01% of NaCl, 10 mg/l. of $FeCl_3.6H_2O$, 10 mg./l. of $CaCl_2.2H_2O$ and 0.01% of yeast extract (pH 6.0), after which the microorganism (oleobacidium eumycetes) was inoculated thereon and cultured at 30°C. Feeding of phenol was carried out portion-wise over a period of 240-264 hrs. until 1700 ug/ml. of phenol had been added in total to the medium. Thus, a microorganism exhibiting excellent phenol-degradation property was obtd. 17.9.77 as 111874 (7pp34)

EBAI ★ D15 38146B/20 ★J5 4045-964
Denitrification of waste water e.g. sewage - involves initial denitrification, nitrification and sec. denitrification steps
EBARA INFILCO KK 17.09.77-JA-111946
(11.04.79) C02c-01/02

In biological denitrification of NH_4-N-contg. organic polluted water, e.g. a sewage by sending in succession the water to be treated to an initial denitrification step, a nitrification step and a sec. denitrification step, and recycling a portion of a nitrification liquor discharged from the nitrification step to the initial denitrification step, the improvement comprises adding a portion of the liquor discharged from the initial denitrification step to the nitrification liquor to be recycled and to the nitrification liquor to be flowed into the sec. denitrification step, so that dissolved oxygen contained in the nitrification liquor is consumed by the action of NH_4-N contained in the liquor discharged from the initial denitrification step. The consumption of BOD components and organic carbon sources, e.g. MeOH etc. is thereby prevented and effective denitrification is possible.

It is pref. to install closed-type retention vessels at points where the liquor discharged from the initial denitrification step is added to the nitrification liquor to be recycled and to the nitrification liquor to be flowed into the sec. denitrification step. 17.9.77 as 111946 (3pp34)

FUJT ★ D15 38147B/20 ★J5 4045-965
Solidifying dewatered cake of sewage activated sludge - by adding Portland cement, aluminium hydroxide, hydrated) calcium sulphate, sodium carbonate and alumina cement
FUJISASH IND KK 20.09.77-JA-112218
L02 (11.04.79) C02c-03

A dewatered cake of sewage activated sludge, having a water content of 65 to 85 wt.% is solidified in a short time (within a day) by adding 5 to 15 pts. wt. of a solidifying agent comprising 100 pts. wt. of a Portland cement (e.g. ordinary Portland cement, rapid reinforcing Portland cement or super rapid reinforcing Portland cement), 5 to 20pts. wt. of non-crystalline Al hydroxide, 5 to 40 pts. wt. of $CaSO_4.1/2\ H_2O$, $CaSO_4.2H_2O$ or soluble anhydrous $CaSO_4$, 10 to 30 pts. wt. of Na_2CO_3 and 10 to 50 pts. wt. of alumina cement composed mainly of Ca aluminate to 100 pts. wt. of the dewatered cake, and kneading the mixt. at room temp. to convert it into a solidified prod. having a mono-axial compression strength > 1.0 kg/cm^2.

The coagulation and hardening of the dewatered ca
accelerated by use of a combination of Portland cem
Al hydroxide, gypsum, Na_2CO_3 and alumina cement a
solidifying agent. 20.9.77 as 112218 (3pp34)

HITF ★ D15 38148B/20 ★J5 40
Treating effluent from waste gas washing process - using thir
evaporators and condenser for converting steam from evap
to water for refuse in waste gas cooling tower
HITACHI SHIPBLD ENGG KK 19.09.77-JA-112985
E36 J01 (11.04.79) B01d-53/34 C02c-05

A smoke-washing effluent contg. a large amt. of NaC
a small amt. of heavy metal components, resulting fr
washing a HCl-contg. waste gas, e.g. exhausted from
dust-incinerating furnace, with NaOH-contg. water, i
treated in a closed system without any discharge of th
waste liquor to the outside.

Method comprises (a) supplying the effluent portio
to a heavy metal treating appts. to separate it into a h
metal-free liquor and a heavy metal-contg. waste liqu
(b) introducing the heavy metal-free liquor into a thin-
evaporator to recover a residue as salt; (c) similarly
-ducing the heavy metal-contg. waste liquor into anoth
thin-layer evaporator to recover a residue as heavy m
components; and (d) transferring the steam used in the
-layer evaporators to a condenser to condense it to wa
which is reused as cooling water in a waste gas-coolin
tower. 19.9.77 as 112985 (2pp34)

NITT- ★ D15 38194B/20 ★J5 4046
Liq. purifier for removing oil from a cleaning water - comprises
for receiving used water, a disc rotor assembly, scraper blades
tray units
NITTO SEIKO KK 21.09.77-JA-113984
J01 (11.04.79) B01d-17 C02c-05

A liq. purifier for removing oil from a cleaning water
be reused for washing purposes or drained out, compri
a tank for receiving a used water from a conduit, a dis
rotor assembly including a rotating shaft and a number
axially spaced discs mounted on the shaft, sets of scra
blades, and a number of tray units disposed between ad
cent rotating discs for collecting the oil which has been
scraped away from the opposite surfaces of the discs.

The oil components of the cleaning liq. collected in t
tank rise to the top of the bath because of their lighter
specific wt. than that of the water, and get caught in the
form of oil films by the rotating surfaces of the discs d
ped into the top portion of the bath. 21.9.77 as 113984
(3pp47)

METT D15 76964R/42 =J7 9008-
Removal of heavy metals from effluent
M & T CHEMICALS INC 14.04.69-US-816055
*E37 J01 (19.04.79) *DT2017-041*

IDEK D15 21648X/12 =J7 9008-
Petroleum-refining waste water treatment - sulphides are oxidis
prior to actived sludge treatment
IDEMITSU INDUSTRIES KK 26.07.74-JA-085209
*H05 (20.04.79) *J51014-752 C02c-01/06 C02c-05/04*

Sulphide(s)-contg. waste water from a petroleum refinin
plant treated with ClO_2 oxidising agent (so that activated
sludge regeneration period is shortened) and subsequent
aerating it in the presence of Fe catalyst. The sulphides
are oxidised, prior to the activated sludge treatment.
26.7.74 as 085209 C02c-5/04, 1/06 (20.4.79) IDEMITSU
KOSAN KK (2pp) (J5 1014752)

SAOK D15 54819X/29 =J7 9008-9
Treatment of waste water from pulp or paper mfr. - by pptn.
floating substances and decolourising with sulphur dioxide
SANYO KOKUSAKU PULP (SANN) 27.11.74-JA-135628
*F09 (20.04.79) *J51062-550 C02c-05/02 + B01d-53/34*

A waste pulp water of pH 4 and colour degree 800° is tre
ted with a lime-sea water process to aggregate and ppte.
floating substances gives a supernatant liq. of pH 11.5 a
colour degree 300°. The supernatant liq. is treated with
HCl, H_2SO_4 or air contg. 0.1% of SO_2. 27.11.74 as 13562
C02c-5/02, B01d-53/34 (20.4.79) SANYO-KOKUSAKU
PULP (6pp) (J5 1062550)

EJ D15 04461Y/03 = J7 9008-986
eatment of industrial waste water contg. conc. oil component - volves adding inorganic salt solns. and sepn. of coagulant
HITACHI PLANT ENG CONST (HITJ) 22.05.75-JA-061294
*J01 P41 (20.04.79) *J51138-057 C02c-05/02*

reatment of waste water contg. a concn. oil component, ich as from a machine shop (e.g. an automobile factory, c.) comprises (1) adding H_2SO_4 and a ferrous salt soln. give a single oil phase (rising to the surface) and an oil-ontg. aq. phase (the oil content of which is smaller than at of the crude waste water); (2) adding $Ca(OH)_2$ to the oil contg. aq. phase, sepd. to form suspended matter; (3) dding HCl (at 0.5-1.5 vol. % on the aq. phase) so that oil omponent is cohesively included with the suspended mater; (4) remove suspended matter to give a treated water; nd (5) adding an aluminium salt soln. to the treated water btd. in step (4) (if necessary after blending with a waste vater having bil. (sic) oil content) to form suspended mater in which oil components are cohesively included, followed by pptn.

Oil component in sludge resulting during the treatment, s maintained stably without suffering any mechanical sepn. t is abandoned after drying at such places at which it is not converted into water-sol. matter. 22.5.75 as 061294 C02c-5/02 (20.4.79) HITACHI PLANT ENGG (3pp) (J5 1138057)

NIMI D15 53006Y/30 = J7 9008-987
Treating waste water liquor from aluminium electrdeposition - by coagulating and precipitating organic material and oxidising sepd. mother liquor
NIPPON LIGHT METAL KK 10.12.75-JA-146343
*M11 (20.04.79) *J52070-566 C02c-05*

The organic material-contg. waste liquor resulting from subjecting Al material to an electro-deposition coating treatment, is treated by adding an acid e.g. H_2SO_4, HCl etc. under slow agitation to coagulate the organic material followed by pptn. The mother liquor sepd. is then oxidised with an oxidising agent e.g. H_2O_2 etc. at a pH of 2, elevated temp. (80°C) for about 5 hrs. to decrease the remaining COD components.

It is possible to decrease the COD content in high efficiency without the resinous material adhesing to the appts. used. 10.12.75 as 146343 C02c-5/00 (20.4.79) NIPPON LIGHT METAL KK (3pp) (J5 2070566)

BARB D15 27359V/15 #J7 9009-423
Carbon-contng waste wet-oxidn - esp sewage processing, with oxidising gas, using horizontal reactor sub-divided into inter connected compartments
BARBER COLMAN CO (BARB-) 29.09.72-DT-247841 (02.10.72-JA-098803)
*(24.04.79) *DT2247-841 C02c-05/04*

Wet-oxidn. of C-contg. waste material (I), by contacting an aq. dispersion of (I) with an oxidising gas, takes place in a horizontal reactor, sub-divided into several generally cylindrical, inter-connected compartments. Aq. dispersion of (I) is introduced continuously near one end of reactor and moved through reactor, from compartment to compartment.

Oxidised dispersion is taken out near opposite end of reactor. Dispersion is kept at 204-246°C and acid pH(2-7) for 1-30 mins. Oxidising gas is introduced continuously into several compartments. Dispersion is strongly stirred and moved in compartments to distribute the oxidising gas, so as to cause quick oxidn. of (I) and form an ecologically acceptable effluent. Process is suitable for municipal and small-scale sewage processing, e.g. on board a ship. 2.10.72 as 098803 C02c-5/04 (24.4.79) BARBER-COLMAN CO (9pp) (J4 9059780)

DOLI/ ★ D15 B/20 ★PT --68-305
Purificn. of effluents with high biological content - by anaerobic fermentation
DE OLIVEIRA A S 17.07.78-PT-068305
*(27.04.79) C02c-00/**

PRZE- ★ D15 B/20 ★PT --68-31
Installation for biological treatment of sewage water - ha absorption and stabilising chambers contg. inclined blades an ventilating rotors and brushes, and has sedimentation chambers
PRZEDSIEBIORSTOW IN 18.07.78-PT-068315
*(27.04.79) C02c-00/**

DAMA/ ★ D15 B/20 ★PT --68-35
Desalination process including sepn. of salts with different densitie - uses instantaneous evaporation in tank contg. several chamber and with interior protected by flexible plate
DAMAS R A 27.07.78-PT-068353
*(27.04.79) C02c-00/**

APAR- ★ D15 B/20 ★RU --63-12
Electromagnetic processing installation for boiler feed water
MINI APARARII NATI 30.10.71-RU-068607
(31.05.78) C02b-09

CSIN- ★ D15 B/20 ★RU --65-08
Aerator with rotor - has conical pipe system and wire net jackets
INST CONST GOSPOD 24.10.72-RU-072620
(30.09.78) C02b-01/28 C02c-01/10

PETR- ★ D15 B/20 ★RU --65-13
Removal of organic impurity traces - by biological purification and then conventional multi-stage treatment
COMB PETROCH PITEST 16.06.72-RU-071281
(30.09.78) C02c-05

RAFI- ★ D15 B/20 ★RU --65-449
Waste water purification plant - including settling, decantation, chemical treatment, coagulant addition and petroleum coke filtration stages
INST RAFINAR PETRO 18.05.73-RU-074824
(30.09.78) B01d-21/ C02b-01/18*

MERE/ ★ D15 38305B/20 ★SU -614-027
Water liming control in power stations - by titrating incoming liquid and determining electrical conductivity to find amount of added lime
MERENKOV A N 17.01.77-SU-443368
R26 (02.06.78) C02b-01/22 C02b-05 G05d-27

Method for regulating the process of liming water during the purificn. of waters by chemical methods in thermal power stations etc. has been developed. The lime dose is varied and is fed to the water depending on the extreme value of the electrical conductivity of the limed water in the sampled flows. Precision and velocity are increased and operational consumption is reduced, with the consumption of lime water being stabilised in the sampled flow, by filtrating the incoming liquid with this water according to the extreme value of the electrical conductivity and of the obtd. mixt. Depending on the amt. of titrant used, the dose of lime to the treated water is varied.
Merenkov A.N., Bul. 25/7.78 17.1.77 as 443368 (2pp29)

MYAG/ ★ D15 38306B/20 ★SU -614-028
Magnetic treatment of liquids to reduce corrosion - involves using magnets inside conical surfaces of body and non-magnetic limiters
MYAGKOV V YA 19.01.76-SU-320938
(02.06.78) C02b-09

Appts. for magnetic treatment of liquids in thermal systems with steam and water heating boilers, with the aim of reducing incrustation and corrosion, has magnets arranged coaxially in the machine-like ferromagnetic body on the bottom and the end, with non-magnetic limiters. Throughout capabilities of the appts. and the degree of utilisation of the magnetic alloys are increased by making the body with an internal conical surface narrowing down towards the bottom, and with a circular gap at the bottom. The non-magnetic limiters are positioned in the circular gap and the cover is made ferromagnetic and placed above the free end of the magnet.
Myagkov V.Ya., Tsikerman M.G., Myagkov Yu.V. et al. Bul. 25/5.7.78 19.1.76 as 320938 (2pp29)

PRPO= ★ D15 38307B/20 ★SU -614-029
Biochemical oxidation process parameters determining appts. - has pressure sensor connected to electrolyser, to operate the latter when oxygen is used-up
PERM POLY 03.01.77-SU-437767
J04 R16 (02.06.78) C02c-05/10 G01n-07/14

Automatic device to detect the parameters of an oxidation process, i.e. to increase the usage of oxygen and the quantity needed for biochemical oxidn. e.g., in effluents, comprises a pressure sensor connected to an electrolyser and a reaction vessel, and an automatic recorder. Simultaneous automatic recording of the velocity and quantity of oxygen is guaranteed and measurement precision is increased by providing an electronic integrator, connected in series with a converter, proportionally-integrated regulator, and regulated d.c. source. The output of the pressure sensor is connected to the electrolyser through the converter, etc.
Egorov A.M., Dirks G.G., Bul. 25/5.7.78 3.1.77 as 437767 (2pp29)

ROVO= ★ D15 38308B/20 ★SU -614-030
Effluent biochemical cleaning automatic control - uses oxygen and active sludge concentration transducers and regulators, to control air supply to aeration tank
ROST VODOKANALPROEK (VOLG=) 18.01.77-SU-443641
R26 (02.06.78) C02c-05/10 G05d-11/02 G05d-27

Automatic control system for regulating aq. effluents biochemical purification comprises oxygen and active slime concentration transducers coupled via corresponding regulators to actuating mechanisms. There are also provided an aerating tank contamination monitor and ratio regulator with air supply system.

In order to increase productivity under conditions of high active sludge concns. to reduce energy consumption and to improve cleaning quality, the system is provided additionally with effluent flow meter, optimiser and ratio indicator with correcting units.
Ivanenko B.N., Tarasov N.G., Kedrov A.A et al. Bul. 25/5.7.78 18.1.77 as 443641 (3pp847)

LEMU= ★ D15 38478B/20 ★SU -614-800
Distributing filters system for water or effluent purification - with pipes in filter bed linked to domes for releasing water into the bed
LENGD MUNIC MANAG 02.08.76-SU-393289
J01 (09.06.78) B01d-23/20 C02c-01/18

Distributing system of filters used to purify natural water or aq. effluents compre pipes disposed in the filter bed, attachments and channels. Productivity of the filters is increased by reducing the degree of restriction of the filter-bed material between the channels. Each channel comprises a cylindrical dome connected to the pipe by an attachment. The ratio of the dia. of the pipe to the max. cross-section of the channel is from 1:1 to 1:2.
Lazovskii Ya.B., Novikov M.G., Bul. 26/15.7.78 2.8.76 as 393289 (2pp29)

CSMA= ★ D15 38481B/20 ★SU -614-803
Centrifugal suspended solids clarifier for effluents - has tangential inlet pipe and rotor mounted on internal shaft and plates through which the water passes
CONS MATER IND PROD 05.07.76-SU-381546
(09.06.78) B01d-45/12

Centrifugal clarifier is used to separate suspended solids e.g. mechanical impurities, during the purificn. of effluents in return-water supply enrichment works, requiring thorough cleaning of the effluent. The body has a tangential inlet pipe and pipes to take away the clarified and concentrated fractions, and a rotor mounted cantilever-wise on a shaft inside the body. Clarification effectiveness is increased by fastening plates respectively to the body and rotor. The body is also made as a conchoidal chamber and the pipe for withdrawing the concentrated fraction is placed tangentially.
Bessmertnyi K.S., Udalov P.I., Khrustalev M.I. et al. Bul. 26/15.7.78 5.7.76 as 381546 (3pp29)

KAZM= ★ D15 38574B/20 ★SU -61
Automatic regulator for waste water ozonisation - uses o generator with variable voltage generator and ozone-air mi concentration transducers
KAZMEKHANOBR 02.07.76-SU-395903
R26 (27.06.78) C02b-01/38 G05d-27

Automatic regulator is used for controlling the ozonisa process of effluent waters by varying the ozone genera supply voltage in proportion to effluents flow rates.

In order to ensure reliability of the process in all r imes, without lowering the plant efficiency, and to elir ate ozone waste in conditions of over-saturation, the s ly voltage and the air supply are varied in proportion t the effluent flow rate, residual components concentrati and inversely proportional to the ozone concentration in spent ozone-air mixture.

The air supply is regulated in dependence on the firs time derivative of the ozone concentration in the initial ozone-air mixture.
Ozerov, A.I., Roshchin, E.K., Krantsberg, E.P. et a Bul. 26/15.7.78. 2.7.76 as 395903 (3pp847)

IRRA= ★ D15 38575B/20 ★SU -615-
Ion-exchange removal of cyanide and thiocyanate from effluen using chloro-methylated copolymer of styrene and di:vinyl-benze 170 mg/ ted anionite, with amine
IKKUT RARE NON-FERR 01.10.76-SU-407546
A91 J01 (27.06.78) C02c-05/08

Ion-exchange cleaning of effluents, contg. cyanides and thiocyanates is used in gold-extracting works, as well a in galvanising and coke/chemicals inds. Absorption tak place on an anionite, the degree of cleaning being intens fied by using a chloromethylated copolymer of styrene ar divinyl-benzene as the anionite, having a macroporous structure, aminated by quinoline, isoquinoline, quinaldi or their mixtures.

A technical soln. obtd. during ore-treatment and cont ... /1. of cyanides and 99 mg./1. thiocyanates is contacted with an anionite containing pure fractions of quinoline and isoquinoline. Consumption of anionite is 6.25 g/ of the solution. After purification the solution contains 15 mg./1. cyanides and 0.12 mg./1. thiocyanates. The degree of purification of the former is thus 91.2% and of the latter 99.9%.
Chikin, Yu.M., Lebedeva, V.T., Petrov, V.F. et al. Bul. 26/15.7.78. 1.10.76 as 407546 (2pp29)

ELSA/ ★ D15 B/20 ★SW 7710-79
Biological degradation of phenol in aq. effluent - by treating wit Pseudomonas nitrificans CBS 295 and Polyporus versicolor CBS 639 and then Pseudomonas dinitrificans CBS 290
EL-SAYED R M 27.09.77-SW-010790
E14 (30.04.79) C02c-05/10

Biological degradation of phenol in aq. effluents comprise treating the effluent under stirring and aeration with Pseudomonas nitrificans CBS 295 and Polyporus versicol CBS 639. The prod. is treated with Pseudomonas dinitrificans CBS 290 on a submerged filter. 27.9.77 as 010790 (-pp903)

ENVI D15 12488B/07 =US 4151-749
Appts. for taking liq. sample from flowing stream - in which stream is passed over vertical rotating disc to form peripheral bead
ENVIROTECH CORP 03.08.77-US-821403 (30.08.74-US-501875)
*J04 R16 (01.05.79) *GB2001-932 G01n-01/20*

Appts. for obtg. a continuous, substantially particle-free sample of liq. comprises a rotatable member having a liq. wettable surface on a generally continuous periphery. A stream of liq. to be sampled is discharged downwardly onto a portion of the surface. The rotatable member is rotated at a speed sufficient to form a bead of liq. to be sample about the periphery of the member. A portion of the liq. is removed from the member by a blade disposed adjacent the periphery of the member in engagement with the bead.

The appts. may be used in obtg. a continuous sample of liq. for subsequent chemical analysis in municipal water or waste water monitoring systems. 3.8.77 as 21403 C. i.p. 3999945, 4052904 (+28.11.75-US-635981)(-pp1363)

R/ ★ D15 38740B/20 ★US 4152-080
pile pet waste liquefier - with handled wheeled frame carrying
or and removable receptacle with blade assembly
CLARK W JR 16.11.77-US-851931
(01.05-79) B01f-07
frame is mounted on wheels and carries a motor with an
-off switch and clutch, and a receptacle with a blender
de assembly and a second clutch member to engage the
tor clutch. The receptacle pref. has a pair of opposed
le handles and a hinged top lid, and the motor is bolted
a shelf fixed in the frame lower part.
The receptacle is pref. held by a belt in a pair of yokes
tending forwardly from the frame lower part, and the
ame handle, intermediate and lower parts are removably
rew-threaded together. The receptacle can hold chemi-
l soln. and deodorant. 16.11.77 as 851931 (4pp1358)

BE- D15 68104Y/38 #US 4152-082
ive for stirrer to aerate effluent - with the power transferred via
e large gear to reduce breakdowns
MACH FAB HUBERT W & 01.03.76-NL-002118
*+Q64 (01.05.79) *NL7602-118 B01f-07/16*
driving device for an agitator used in an aerator for
aste water comprises a gear wheel transmission includ-
g power driven input shaft and an output shaft coupled to
e aerator. A gear toothed ring couples the output shaft
a revolving table, the latter comprising an outer ring
ear which is in engagement with a motor driven cogged
heel.
An axially adjustable bridge supports the motor and in-
udes an inner ring and bearing balls operatively assoc-
ted with the gear tooth ring. 29.4.77 as 792407 (-pp)

ITA D15 27396V/15 =US 4152-218
eawater distillation plant - based on multiple chemical reactions
ith gases intially exhaust gases contg oxides of sulphur
HITACHI KK 28.08.72-JA-085310
*J01 (01.05.79) *DT2343-340 +B01d-01/26*
emoval of SO_x from exhaust gases and pretreatment of sea
ater to be distilled without scale deposition are claimed.
lethod comprises (1) contacting exhaust gases, contg.
O_x as sulphuric anhydride gases (I), with sea water contg.
lkaline metallic ions to absorb (I) in the sea water and (2)
ontacting the sea water contg. metal sulphites (produced
n (1)) with an O_2-contg. gas to convert the sulphites to
netal sulphates.
Method further comprises (3) decarbonising the sea wat-
r by carbonic acid ions in the sea water reacting with H
ons produced by the absorption of (I) to produce water and
O_2 which is removed and (4) controlling steps (1) to (3)
o that the treated sea water is alkaline, contains metal
ulphates, is free from H_2SO_4 and undergoes no increase in
emp. 10.11.76 as 740405 (+27.8.73, 25.9.74-US-
91682, 509120)(5pp992)

ONL- ★ D15 38795B/20 ★US 4152-229
emoving soluble metal ions from effluent water - by passing
hrough galvanic cell with donor and acceptor electrodes
LONDON LAB LTD 19.04.78-US-897800
M28 (01.05.79) C02c-05/12 C25c-01/12
Soluble metal ions (A) are removed from a soln. of pH 1.5-
4(2.3.5) and halide ion content $\geq$ 0.1 (0.5-100) g/l by
passing through a chamber fitted with galvanic electrodes.
These include $\geq$1 donor electrode made of metal higher in
the electrochemical series (ECS) than (A) and $\geq$1 acceptor
electrode of metal lower in the ECS or of stainless steel.
The donor and acceptor electrodes are in the form of
screens or perforated sheets and are in contact. The (A)
ions are insolubilised and removed e.g. by plating on the
acceptor electrode; or, after decanting, as a ppte.
Used specifically for removing Cu from effluent
streams. The method is rapid and efficient even with
solns. contg. < 100 mg/l (A) (reducing them to < 10 mg/l).
The metal can generally be recovered. 19.4.78 as 897800
(8pp1251)

OMCO- ★ D15 38801B/20 ★US 4152-238
Increasing pH and softening drinking water by electrolysis - with thermostatically heated hollow cathode
OMCO KK 16.01.78-US-869943 (23.01.76-US-651839)
J03 (01.05.79) C02b-01/82

An electrolyser vessel comprises a cathode and anode sepd. by an unglazed partition to form two components of water having different densities of hydroxyl radical formed by electrolysis and electroendosmose. The cathode is hollow and includes a heater and also a temp. sensor linked to provide a thermostatic action which heats the water to improve softening of the water and to increase the pH of the water.

Pref. the temp. sensor is a thermistor which is connected in series with the heater and in contact with the water in the vicinity of the cathode. Pref. the cathode is Ti plated with Pt. The appts. increases the pH of drinking water and also softens it. 16.1.78 as 869943 (15pp295)

CLEV- ★ D15 38814B/20 ★US 4152-259
Aeration of waste water - with backflushing by reverse flow of air through water system
CLEVEPAK CORP 22.12.77-US-863587
(01.05.79) B01f-03/04 C02c-05/04

A gas is mixed with a body of waste water by pumping the water beneath its surface through a passage in a mixing chamber from an inlet to an outlet. Gas also enters the passage so that the gas and water are mixed in the passage.

For backflushing, the pumping is ceased and the inlet is connected to a backflush location above the outlet without blocking the outlet. The location must have a lower pressure than the pressure at the outlet. Gas is still allowed to enter the passage and this causes backflow of the water from theoutlet through the inlet to the lower pressure location. This flushes debris from the passage and pump.

The method is used partic. for the aeration of industrial waste or sewage, and for flushing accumulated debris from the submerged system. It is not necessary to shut down the system and drain the holding basin for cleaning the system. 22.12.77 as 863587 (9pp295)

ROSE/ ★ D15 38815B/20 ★US 4152-262
Domestic water filtration and purificn. in single housing - with metered addition of purifying iodine solution
ROSE J G 13.02.78-US-877075
(01.05.79) B01d-27/08

Water treatment appts. includes a filter through which the feed water passes. A metering compartment divides the output of the filter into two metered streams one of which is supplied to a downstream mixing chamber while the other stream is fed to a purificn. reservoir. Within this reservoir the water contacts iodine crystals to form a purify-ing soln. which is also introduced into the downstream chamber. Treated water is discharged from this downstream chamber. The sizes of the metering orifices are adjustable to alter the amt. of purificn. soln. added to the outlet water.

The appts. may be permanently installed in a water line to provide drinking water. The iodine is added to the treated water at an adjustable rate in the range 0.8-1.2 ppm. 13.2.78 as 877075 (7pp295)

LECO= D15 84307A/47 #US 4152-266
Rapid sand filter for sewage and water - with distribution system of drain pipes for uniform wash operation
LENGD COMMUN ECONOM 12.05.77-DT-721505 (26.04.77-US-791154)
*(01.05.79) *DT2721-505 B01d-23/10*

A filter for the treatment of natural and waste water comprises a housing having a granular filtering body. A draining distribution system is arranged within a lowermost bed of the filtering body and communicates with a collecting distributing duct. The filter has a charging duct provided with a device for positive distribution of water over its length.

The water pressure is levelled out longitudinally of the charging duct to ensure uniform delivery of water into tubes of a drainge distribution system over the surface area of the filtering body. 26.4.77 as 791154 (8pp1363)

KRAU/ D15 04862A/03 =US 4152-268
Porous flexible drainage sleeve for dewatering sludge - has discharge valve opening to same cross section as drainage chamber
KRAUSE W 26.03.76-DT-U09290
*(01.05.79) *FR2345-399 +B01d-33*

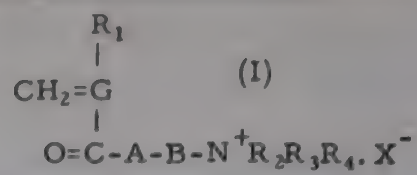
Appts. for removing water from mud includes a container of a flexible porous material having a tubular side wall bounding a chamber for receiving mud. A flexible tubular member is located outside and adjacent an outlet opening of the container. The flexible tubular member is deformable so that the outlet opening of the container is closed during dewatering of the mud.

After termination of the process the flexible tubular member allows the outlet opening to be opened and allow the dewatered compressed mud to be discharged as a whole through the outlet opening. The appts. may be used for removing water from sewage sludge. 14. 3. 77 as 777058 (-pp1363)

SANN D15 48129A/27 =US 4152-307
Quat. ammonium monomer-based water-in-oil polymer emulsions - used as flocculating agents in paper mfr. and for clarifying waste water
SANYO CHEM IND 22.12.76-JA-155370
*A91 F09 (A14 A97) (01.05.79) *DT2756-697 C08l-33/14*

Prodn. of a water-in-oil polymer emulsion comprises forming a dispersion of 30-70 wt.% of (a) aq. soln. of ⩾ 1 ethylenically unsatd. monomer and (b) 70-30 wt.% hydrophobic organic liq. in the presence of 8-20 wt.% nonionic oil-in-water surfactant w.r.t. hydrophobic liq., and heating the dispersion at ⩾40°C.

Monomer comprises (1) 1-100 wt.% monomer of formula (I) where R_1 is H or CH_3; R_2 and R_3 are 1-4C alkyl or 2-4C hydroxyalkyl; R_4 is H, 1-4C alkyl, 2-4C roxyalkyl or benzyl; O or NH; B is 1-4C a ene or 2-4C hydroxya ylene and X^- is an an (2) 0-99 wt.% of anoth hydrophilic comonomer; and (3) 0-30 wt.% of a hydrop ic comonomer.


(I)

$$CH_2{=}\overset{\overset{\displaystyle R_1}{|}}{\underset{\underset{\displaystyle O{=}C{-}A{-}B{-}N^+R_2R_3R_4.X^-}{|}}{G}}$$

A water-in-oil polymer emulsion is obtd., a 1% aq. soln. of which has a viscosity of ⩾ 100 cps., where a wt.% emulsion has apparent viscosity ⩽ 100 cps. at 30 (Brookfield viscometer, No. 1 rotor at 60 rpm).

Useful in waste water treatment and paper mfr. 22.12.77 as 863444 (9pp963)

THOM/ ★ D15 B/20 ★ZA 7801
Water treatment and filtering appts. - includes ionic sterilise prevent bacterial growth
THOMAS N F 09.03.78-ZA-001378
J01 (15.03.79) B01d-25

The appts. comprises (a) walls defining a manifold cav (b) holding means for holding filter cartridge elements fluid flow communication with the cavity, (c) a main flu flow connection communicating with the cavity for pass water into or out of the cavity; and (d) galvanic unit wit the cavity, adapted by galvanic action in water within th cavity, to release ions into the water for inhibiting the growth of bacteria or other micro-organism in the wate 9.3.78. as 001378 (12pp)

See Also

D13 DS 2343196
D22 J5 4044024
D25 J7 900959

D16 : FERMENTATION INDUSTRY

PRIO/ ★ D16 37140B/20 ★BE -871-848
Treatment of disease with negative ions - associated with air containing peroxide(s) prepd. by high-temperature cracking of hydrocarbon(s), e.g. for hard cholesterol elimination
PRIORE A 17.10.77-FR-031159
B04 J04 P34 (08.05.79) A61n

Treatment of live organisms with negative ions combined with treatment with an electrostatic field is effected by supplying air charged with negative ions to a subject in an electrostatic field created between a plate at a negative potential to which are attached points directed towards the head of the subject, and a plate at a positive potential in contact with the body of the subject, the ionised air being charged with peroxides which were produced at a temp. > 2000°C.

Used for treatment of bodily disorders, e.g. elimination of hard cholesterol from the body. Presence of peroxides increases efficiency of treatment. 8. 11. 78 as 871848 (15pp)

PFIZ ★ D16' 37168B/20 ★BE -871-955
Fermentative prodn. of pyruvate-free xanthan - for mobility control in secondary oil recovery
PFIZER INC 15.11.77-US-851757
H01 Q49 (14.05.79) C12d E21b

Prodn. of a fermentation broth suitable for preparing mobility-control fluids for secondary oil recovery is carried out by aerobically culturing a Xanthomonas strain capable of producing pyruvate-free xanthan (esp. X campestris ATCC 31313) in a nutrient medium contg. a carbohydrate, an assimilable N source and trace elements until the broth contains ⩾100ppm of pyruvate-free xanthan (PFX).

Also claimed is a process for producing a fermentation broth contg. deacetylated PFX, in which the broth obtd. as above (or its filtrate) is adjusted to a pH of ⩾9, kept at room temp. for ⩾10 min, and opt. neutralised. Also claimed are processes for producing PFX and deacetylated PFX, in which these products are ppted. from their fermentation broths by adding a water-miscible precipitant. Also claimed are oil recovery processes in which mobili control fluids contg. the fermentation broths prepd. as above are injected into a subterranean oil-bearing formation.

PFX and deacetylated PFX are less ionic than normal xanthan gums and are thus more compatible with brines having a high diavlent ion content and high salinity. 13. 11. 78 as 871955 (17pp367)

MERI D16 11854U/09 =DS 2265-3
Cariogenanases prepn - useful in dental care prepns
MERCK & CO INC 10.08.71-US-170642
*B04 (10.05.79) *NL7210-466 A61k-07/28*

Dental mouth wash for the treatment of dental deposits contains cariogenanase, dextranase and opt. a suitable protease as the active components, opt. with additives ar stabilisers.

The combined enzyme prepn. is much more effective than the separate enzymes. 9. 8. 72 as 265327 Div. ex 2239252 (7pp047).

STEI D16 63645A/36 =DS 2707-9
Cooker inside brewing copper - enclosed by open/ended guid tube for reduced consumption of cleaning fluid spray
STEINECKER A MASCH GMBH 24.02.77-DT-707963
*(10.05.79) *DT2707-963 C12l-07/04*

A wort vat for breweries includes a tubular boiler which is surrounded by a cylindrical open-ended guide. The guide can be raised to a position where its bottom edge is 10-50(15-25)cm. away from the vat bottom. In its lowest position it rests directly on the vat bottom. During cleaning, caustic soda soln. is sprayed from a nozzle over the boiler and lowered guide. The liq. from the sump formed outside the guide is recirculated by a pump and an extern

A min. amt. of cleaning agent is required for efficient eaning of the tubular boiler. 24.2.77 as 707963 (4pp39).

RH ★ D16 37249B/20 ★DT 2748-659
lation of cephalosporin C - after drying the culture filtrate or soln.
HOECHST AG 29.10.77-DT-748659
B02 (10.05.79) C07d-501/28 C12d-09

olation of cephalosporin (I) from culture filtrates or oln. is effected by drying the filtrate or soln. dissolving e residue in a nonaq. solvent (opt. contg. H_2O), and either (a) forming a deriv. of the amino gp. of (I) and isolatg the deriv. in free acid or salt form or (b) precipitating) directly or as a sparingly soluble salt. The process vercomes the problems associated with prior art methods nvolving direct treatment of the culture filtrate or soln.

The filtrate or soln. is pref. spray-dried, suitable solvents are formamide, glacial HOAc, or a mixt. of H_2O and MeCN, DMF, MeOH, methoxyethanol, phenol pyridine or rimethyl phosphate.

Method (a) is pref. effected by reacting with benzoyl chloride or acetic anhydride, opt. transferring the prod. o an aq. phase and contracting with a water-immiscible solvent, and isolating the prod. from the organic phase by direct crystn. or by ppt. with a diamine (esp. 1,6-diaminohexane). Method (b) is pref. effected by pptn. with a heavy metal (esp. Zn) salt. 29.10.77 as 748659 (17pp 367)

SUMO ★ D16 37364B/20 ★DT 2805-950
Immobilised enzyme carrier of macroporous anion exchange resin - with di:ethylamino-ethyl gps. (NL 8.5.79)
SUMITOMO CHEMICAL KK 05.11.77-JA-132750
A97 B04 (10.05.79) C07g-07/02 C08f-08/32 C08g-08/28

Carrier for immobilised-enzymes comprises a synthetic resin with diethylaminoethyl (DEAE) gps. of the formula $R-C_2H_4-NEt_2$ (in which R is the synthetic resin or its deriv.). The resin is a macroporous resin with a specific surface area of min. 1 pref. min. $5m^2/g$ dry resin and a total vol. of macropores (100-2000 A) as min. 0.1, pref. 0.2 cm^3/g. The average pore size pref. is 150-1000 A and the resin can also contain other anion-exchange gps.

The immobilised enzyme has high activity and retention and large amts. of enzyme can be immobilised. 13.2.78 as 805950 (54pp016)

MEIJ ★ D16 37454B/20 ★DT 2848-224
Herbicidal compsn. contg. antibiotic SF-1293 - and opt. synergist, esp. for selective weed control among Japanese cypress tress
MEIJI SEIKA KAISHA 09.03.78-JA-025971 (08.11.77-JA-133014)
C03 (10.05.79) A01n-09/36

Herbicidal compsn. contains antibiotic SF-1293 of formula $CH_3-P(=O)(OH)-CH_2CH_2CH(NH_2).CONHCH(CH_3)CONH.CH(CH_3)COOH$. (I) or its salts (esp the mono Na salt) as active ingredient plus another active component or carrier.

Active ingredients for use with (I) include the choline salt of maleic hydrazide (II) phenoxy or benzoic acid herbicides, 2,3,6-trichlorophenylacetic acid and its salts (3,5,6-trichloro-2pyridyl)oxy-acetic acid and its salts, N-phosphonomethylglycine and its salts, ethylcarbamoyl-phosphate and its salts, 2-(1-allyloxyimino)butylidine-5,5-dimethyl-4-4methoxycarbonyl-cyclohexane-1,3-dione, 3-(3,4-dichlorophenyl)-1-methoxy-1-methyluria, 3-amino, 1,2,4-triazole, choline or Er_2NH.

(I) is already known as a fungicide e.g. against rice pathogens. At higher doses it is a herbicide effective against annual or perennial weeds, bushes and trees (where it is applied to the leaves but inhibits regrowth from the underground parts of the plants). It is not toxic to Chamaecyparis obtusa (Japanese cypress) so is esp. useful for selective weed control in cultivation of this tree. 7.11.78 as 848224 (58pp1251)

FARH D16 37249B/20 =EP ---1-797
Isolation of cephalosporin C - after drying the culture filtrate or soln.
HOECHST AG 29.10.77-DT-748659
*B02 (16.05.79) *DT2748-659 C07d-501/12 +C12d-09*
D/S: E(BE, CH, DT, FR, GB, NL).

Isolation of cephalosporin C (I) from culture filtrates or solns. is effected by drying the filtrate or soln., dissolving the residue in a monaqueous solvent (opt. contg. H_2O), and either (a) forming a deriv. of the amino gp. of (I) and isolating the deriv. in free acid or salt form or (b) precipitating (I) directly or as a sparingly soluble salt.

The process overcomes the problems associated with prior art methods involving direct treatment of the culture filtrate or soln.

24.10.78 as **101206** (17pp367).
(G) ISR: DT1966849; US3234223.

MERI ★ D16 37532B/20 ★EP ---1-895
Hetero:polysaccharide obtd. by fermentation of a Klebsiella strain - has thickening, suspending and/or stabilising properties in aq. systems
MERCK & CO INC 23.03.78-US-889163 (17.10.77-US-842646)
A11 G02 L02 (16.05.79) C04b-31 C08b-37 C09d-07 C12d-13/04
D/S: E(DT, FR, GB).

A new heteropolysaccharide (S-21) comprises 30-37 (33)% mannose, 26-32 (29)% glucose, 19-23 (21)% galactose and 15.3-18.8 (17)% glucuronic acid, with an acetyl content of 5.1-6.3 (5.7)% and pyruvate content 4.5-5.4 (4.9)%. Also claimed is a complex reaction prod. of S-21 with 0.5-5 wt.% (on wt. of S-21) of a 2-8C dialdehyde, esp. glyoxal.

S-21 has a high viscosity and is useful for its thickening, suspending and/or stabilising props. in aq. systems, partic. cements and paints (claimed). Dispersibility of S-21 is improved by reacting with dialdehydes.
16.10.78 as 300504 (29pp949).
(E) ISR: 1572995. 1 Journal Reference.

GENE- D16 35257B/19 =EP ---1-929
Recombining plasmid for transformation of bacteria - to produce heterologous polypeptide e.g. mammalian hormones
GENENTECH INC 08.11.77-US-849692
*B04 +R16 (16.05.79) *BE-871-782 C12d-13/06 +C07h-21/04 C12k-01/02*
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Recombinant plasmid (A), allowing transformation of a bacterial host and its use as a cloning vehicle, comprises (a) a regulon (R) homogous to the bacterial host in its non-transformed state, and (b) in reading phase with R an inserted DNA which codes for the amino-acid sequence of a heterologous polypeptide (I). Bacteria transformed with (A) can express this amino acid sequence in a recoverable form.

The plasmid is used esp. for prodn. of (I) which is a mammalian hormone or intermediate, e.g. human pre-pro- or pro-insulin; insulin chains A or B; luteinizing hormone; human or bovine growth hormones; ACTH; pancreatic polypeptide or somatostatin. Immunogenic substances contg. polypeptide haptens can also be produced.
6.11.78. as 300596 (53pp1251).
(E) ISR: –

GENE- D16 35257B/19 =EP ---1-930
Recombining plasmid for transformation of bacteria - to produce heterologous polypeptide e.g. mammalian hormones
GENENTECH INC 08.11.77-US-849591
*B04 +R16 (16.05.79) *BE-871-782 C07g-07 C12d-13/06 C12k-01/02 G01n-33/16 +C07h-21/04 C12k-03*
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

(A) Prodn. of a specific polypeptide (I) comprises expression of a heterologous structural gene for (I) in a recombinant microbial cloning vehicle. The structural gene is in reading phase with a DNA sequence coding for a protein other than (I) so that expression yields a precursor protein comprising both the amino acid sequence of (I) and additional protein contg. a selective cleavage site adjacent (I)'s amino acid sequence.

(B) A recombinant microbial cloning vehicle for the above process comprises a regulon, a structural gene coding for the amino acid sequence of (I), and one or more termination codon(s), wherein a DNA sequence coding for additional protein is interposed between the regulon and termination codon(s) without altering the reading frame of the structural gene.

Pref. the cloning vehicle is a plasmid and the process is used to transform bacterial cultures to enable the bacteria to produce an immunogenic substance comprising a polypeptide hapten and an additional protein sufficiently large to confer immunogenicity on the product of expression and enable antibodies to be raised to it. Alternatively, the bacteria may be enabled to produce a desired polypeptide product (e.g. a mammalian hormone or intermediate such as human pre-pro- or pro-insulin; insulin chains A or B, luteinising hormone, human or bovine growth hormones, ACTH, pancreatic polypeptide or somatostatin) linked to an additional protein from which the desired product may be cleaved.

6.11.78. as 300597 (57pp1251).
(E) ISR: —

GENE- D16 35257B/19 =EP ---1-931
Recombining plasmid for transformation of bacteria - to produce heterologous polypeptide e.g. mammalian hormones
GENENTECH INC 08.11.77-US-849691
*B04 +R16 (16.05.79) *BE-871-782 C07h-21/04 C12d-13/06 C12k-01/02*
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

(A) A structural gene coding for the microbial expression of a polypeptide (I) is prepd. by (i) preparing a first series of oligodeoxyribonucleotide fragments which, when joined in a proper sequence, yield a DNA coding strand for the amino acid sequence of the polypeptide, (ii) preparing a second series of oligodeoxyribonucleotide fragments which, when joined in proper sequence, yield a DNA strand complementary to the coding strand, (iii) effecting H-bonding between mutually complementary portions of the first and second series fragments to form a double-stranded structure, and (iv) completing the respective strands by ligation. The process is characterised in that (a) the resulting gene codes for the expression of a mammalian polypeptide, (b) at least a majority of the codons in the coding strand are those prefd. for the expression of microbial genomes, and (c) the fragments joined in step (iii) lack complementarity, one with the other, save for fragments adjacent one another in the structural gene.

(B) A recombinant microbial cloning vehicle (plasmid) comprises a first restriction endonuclease recognition site, the structural gene coding as above, and a second restriction endonuclease site.

The plasmid allows transformation of a bacterial host so that the bacteria can express the amino acid sequence of the polypeptide (I) in recoverable form. (I) is esp. mammalian hormone or intermediate e.g. human pre-pro- or pro-insulin; insulin chains A or B; luteinizing

6.11.78 as 300598 (56pp1251).
(E) ISR: —

ROUS ★ D16 37557B/20 ★EP ---1-945
polysaccharide extracted from Haemophilus influenzae - with antigenic and immunostimulant properties, for treating respiratory infections, bronchitis, diseases caused by H. influenzae, etc.
ROUSSEL-UCLAF 27.10.77-FR-032416
B04 (16.05.79) A61k-31/71 C12d-13/04
D/S: E(BE, CH, DT, GB, NL, SW).

New polysaccharides (I) are extracted from Haemophilus influenza cells, have an apparent mol. wt. >200,000 and are mainly composed of galactose, glucose and mannose. The polysaccharides may also comprise a small amt. of osamines, partic. as glucosamine. Pref. strains of H. influenza are 52151 and 5481 of the Pasteur Institute.

(I) are prepd. by solid or liq. medium culture of H. influenza, havesting after complete development of the microbial mass, phenolic extn. (pref. at ca 65°C) of the washed cell mass, return of the phenolic phase to an aq. phase to give a crude prod. which is purified then subjected to controlled hydrolysis to remove combined fatty acids to recover (I). Pref. the crude prod. is purified by pptn. of nucleic acids with streptomycin sulphate and the controlled hydrolysis is effected with heating in aq.-organic solvent in the presence of an ion exchange resin.

(I) have antigenic and immunostimulant props., useful e.g. in treatment and prevention of diseases caused b influenzae, respiratory infections, bronchitis, chronic bronchitis, etc. Doses are e.g. 1-100 µg/day perlingu Oral, parenteral or local routes of administration are possible. Toxicity is low c.f. active dose, LD_{50} being 65-110 mg/kg (mouse), and tolerance is good, endotox and pyrogens being eliminated.

23.10.78 as 400143 (15pp949).
(F) ISR: FR2043475; GB725938.

PERA/ ★ D16 37573B/20 ★FR 2399
Must sampling attachment for winemaking grapes hopper - extr batch representative sample through mesh panel in hopper wall
PERA D 10.08.77-FR-024654
Q35 R16 (13.04.79) B65g-69/10 C12g-01/02 G01n-01/10 G0 33/14

The hopper is of the type having a bottom section with a sloping wall leading down to an outlet.

Part of the sloping wall is now made of a fine mesh grill. The grill forms the top of a juice chamber on the outside of the sloping wall. The juice chamber has a dr valve at its lowest point. Inside the hopper a mechanica fruit crusher is installed adjacent the grill to expel juic into the chamber. The crusher pref. comprises a rotar shaft with radial blades which just touch the grill during rotation. The blades are pref. made of a flexible material and are fixed to a rigid shaft. The shaft can rotate c tinuously in one direction or be periodically reversed vi an automatic gear.

Used for sampling juice from a batch of grapes so tha quality can be assessed prior to mixing with juice from other batches for a particular wine. The sample obtd. vi the inclined wall mesh grill is more truly representative of the batch than samples taken at the base of the hopper Base-extracted samples tend to represent the softest gra es which were most easily crushed during transport and handling. 10.8.77 as 024654 (11pp448).

NOVO D16 92449X/50 =GB 1545-76
Glucose isomerase prepn. by fermentation in presence of oxygen with glucose xylose or hydrolysed starch as pref. carbon sources
NOVO INDUSTRI A/S 22.07.75-GB-030693
*(D17) (16.05.79) *BE-844-397 +C07g-07/02*

A glucose isomerase prod. is produced by fermentation o a facultative, enzyme-producing microorganism with a supply of O_2 which is growth-limiting; a source of carbon and energy, which is repressing enzyme sythesis, and which is easily converted anaerobically to non-repressing degradation prods., being added in sligh excess.

All other nutrients are added in sufficient amts. the prod. glucose isomerase may be recovered pref. the microorganism used is Bacillus coagulans, esp. a constitutNe and asporogenic mutant strain.

Prods. are used for the isomerisation of fructose to glucose, esp. in syrups contg. a mixt. of sugars. 22.7.75 as 030623 (6pp931)

GREC D16 57886Y/33 =GB 1545-862
Gamma-globulin prepn. for treating Pseudomonas aeruginosa infections - with high titres of original endotoxin protein-, elastase- and protease-antibodies
GREEN CROSS CORP 05.02.76-JA-010866
*B04 (16.05.79) *DT2639-012 A61k-35/14 C07g-07*

Medicament for prevention and treatment of infection and conditions caused by pseudomonas aeruginosa comprises an aq. soln. contg. γ-globulin prepd. from human serum or plasma. The γ-globulin has an HA titer of at least x 128 for original Endotoxin Protien antibody, at least x32 for elastase antibody and at least x64 for protease antibody Pref. the soln. contains 15-17% inclusive w/v of the γ-globulin and a protein stabiliser or preservative.

Daily dose is pref. 150 mg. (1.0ml) per kg for intramuscular injection. 24.8.76 as 035236 (6pp945)

SHIO D16 57979Y/33 =GB 1546-035
Pseudomonas aeruginosa toxoid vaccine - contg. elastase toxoid and protease toxoid obtained from Pseudomonas aeruginosa
SHIONOGI KK (KITA) 05.02.76-JA-010838
*B04 C03 (16.05.79) *DT2704-766 A61k-39/02*

Mixed vaccine against infections (e.g. bovine muistitis) caused by Pseudomonas lastase toxiod obtd. from P. aeruginosa and a protease id from the same organism.

Pref. the vaccines also contain an infection-protective mon antigen OEP from P. aeruginosa. Pref. vaccines contain an adjuvant, esp. $Al(OH)_3$, Al or Ca phosphate, n or Freund's incomplete adjuvant. Pref. they also tain an antiseptic, esp. thimeisol, phenol or formalin. 1.77 as 003906 (13pp974)

DL D16 33443A/19 =GB 1546-043

ecting pathogens in fluid samples by centrifuging - in presence dense cushioning agents, esp. for diagnosing septicaemia by centrating microbes from lysed blood

NADLEY RES INST BLOOD BK 05.11.76-US-739274

*304 R16 +P31 (16.05.79) *BE-860-490 C12k-01 G01n-33/16*

crobial pathogens suspected of being present in a sample id are detected by centrifuging a confined sterile zone tg. the sample. The centrifuging is in the presence of igh-density, non-toxic, water-immiscible cushioning ent.

Pref. the cushioning agent is present at 3.3-30.0 vol.% ef. it is an inert fluorinated hydrocarbon of mol. wt. 0-850. Pref. it has a density of 1.6-2 g./c.c. and a pt. of 90-210°C.

Process is esp. used for diagnosing septicaemia. 11.77 as 045958 (18pp974)

OG ★ D16 B/20 ★HU T016-432

ticancer, antibiotic and biochemical reagent actinomycin D epn. - by aerobic culture of Streptomyces rubifaciens MNG 109

GYOGYSZERKUTATO INT 16.09.76-HU-GO1351

B04 (28.04.79) C07d-103/52 C07d-265/28 C12d-09/14

SO ★ D16 37674B/20 ★J5 4043-246

odn. of adhesive used for paper - by adding cyclic dextrin glycosyl nsferase obtd. from Bacillus microorganism to starch-based spension

NIPPON SHOKUHIN KAK KK 12.09.77-JA-109727

G03 (05.04.79) C09j-03/06 C12d-13/04

dhesive having a paste viscosity of 10-100 cps at 50°C, 0.05 of DE and 15 W/V %, is produced using cyclic dexin glycocyltransferase formed from Bacillus microorgnism.

The adhesive is produced by adjusting the pH of the tarch suspension of 10-40 W/V % to 6-10, adding 5-10 M of $CaCl_2$ and cyclic dextrin. glycocyltransferase in mts. of 10-200 units per g. of starch to the suspension, eating rapidly the mixt. to 70-90°C with stirring, holding e mixt. at the temp. with stirring, elevating the temp. of e mixt. to 95-100°C. when the viscosity has reached 10-00 cps, and holding the prod. at 95-100°C for 5 mins. in rder to inactivated the enzyme.

The adhesive has excellent adhesive power and film trength, and no hygroscopic property. 12.9.77 as 109727 6pp136)

EIS- ★ D16 37739B/20 ★J5 4043-791

eagent for quantitative hydrogen peroxide determn. - contains uorescein deriv.-cyclodextrin complex and peroxidase, for urine r serum samples

SEISHIN SEIYAKU 13.09.77-JA-109409

A89 E36 J04 R16 (06.04.79) G01n-31/22 G01n-33/16

uantitative reagent for (H_2O_2 contains (a) fluorescein eriv. cyclodextrin complex and (b) peroxidase as the effctive ingredients and also pref. (c) oxidase. Determn. of H_2O_2 comprises measuring the intensity of the fluorescence f the fluorescent substance which is produced by reacting H_2O_2 with the reagent.

Pref. (c) is uricase, cholesterol oxidase, sarcosine xidase or glucose oxidase. The ingredient (a), (b) and (c) re reacted with H_2O_2 in an arbitrary order.

By adding cyclodextrin to fluorescein deriv., the latter s markedly stabilised; the fluorescence which is produced y reacting the fluorescein deriv. with H_2O_2 is also stabilsed; and the blank value is lowered. 13.9.77 as 109409 11pp90)

ZERI- ★ D16 37858B/20 ★J5 4044-004

Urokinase compsn. for oral admin. - contains glyco:protein to improve stability

ZERIYA SHINYAKU KOG 09.09.77-JA-109267

B04 (07.04.79) A61k-09 A61k-37/54

Stable urokinase prepn. for oral admin. is prepd. by addn. of glycoprotein such as mutin or mucoid to urokinase. Urokinase is known remedy for cerebral thrombosis, myocardial infarction and potentiator for antineoplastic agent.

The glycoprotein may be inherent glycoprotein in urine or other glycoprotein such as gastric mutin, which is soluble or insoluble. The prepn. is prepd. by adding ca. 1-25 mg. mutin or mucoid to 500 units urokinase. The urokinase may be any product from fresh human urine having relative activity of 200-15,000 units/mg. protein. The gly-coprotein improves absorption of urokinase from enteric organ, and therefore, the prepn. exhibits activity of urokinase in sufficiently high degree. 9.9.77 as 109267 (5pp38)

AGEN ★ D16 37889B/20 ★J5 4044-087

Styrene oligomer decomposition - using Alkaligenes microorganism, or fermentation broth or decomposed mycelium thereof

AGENCY OF IND SCI TECH 14.09.77-JA-111292

A35 (A13) (07.04.79) B29c-29 C02c-01/02 C02c-05/10 C08j-11 C12k-01 C12k-03

A method for microbiological decomposition of styrene-oligomer (I), comprises contacting of (I) with (1) a microorganism (II) belonging to Alkaligenes and having (I)-decomposing effect, (2) culture-medium used for the incubation of (II), or (3) decomposed mycelium of (II).

(I) is used in many inds. as a thickening agent and plasticiser, and a large amt. of (I) is discarded. By the present method, (I) can be decomposed easily.

(II) is e.g. Alkaligenes AT-S-4. The culture medium for incubation of (II) usually contains inorganic salt, vitamin, yeast extract and (I) as carbon source (I) is homogenised to fine droplets in the presence of 20-40 ppm. of surfactant and then 0.1-1.0% of (I) is added to the culture medium. After incubation at 30°C for 1-3 days, 15% of (I) is decomposed. 14.9.77 as 111292 (4pp42)

MITU ★ D16 37890B/20 ★J5 4044-093

Water-insoluble glucose isomerase moulding prepn. - by adsorbing glucose isomerase onto adsorbent from slurry obtd. by grinding suitable mycelium, and sieving

MITSUBISHI CHEM IND KK 14.09.77-JA-110919

(D17) (07.04.79) C07g-07/02

Method comprises (1) preparing a slurry contg. ground mycelium and glucose isomerase (II), by grinding mycelium of a microbial (Streptomyces, Bacillus, Lactobacillus, etc.) capable of producing (II) in the presence of water, (2) contacting a solid adsorbent (III) with the slurry for to absorb (II) onto (III) and (3) sepg. the (II)-adsorbed (III) and the slurry by sieving using a vibrating screen (IV).

(II) can be recovered into (III) almost perfectly and separation of (II)-adsorbed (III) and the slurry is easy.

(II) can be extracted from mycelium, by ultrasonic means, grinding, freeze-melting etc. but it is usually extracted by the addn. of lysozyme or pref. by autolysis of mycelium, An anion exchange resin is pref. used as (III) because it can be regenerated easily. The vibrating speed of (IV) should be > 1300/min. The concn. of the ground mycelium in the slurry is controlled so that its concn. after the sepn. of (III) is 2-20 wt.%. 14.9.77 as 110919 (7pp42)

KYOW ★ D16 37891B/20 ★J5 4044-094

Fermentative prodn. of phospholipase-D - by culturing microorganism belonging to Micromonospora genus

KYOWA FERMENTATION KK 10.09.77-JA-109149

B04 (07.04.79) C07g-07/02 C12d-13/10

Method comprises (1) prodn. of phosphohpase-D (I) in a culture medium contg. nutrients, by incubation of a microbes (II) belonging to Micromonospora and (2) collection of (I).

(I) is useful as chemical reagent or reagent for quantitative analysis of phospholipids in serum. Examples of (II) are Microspora chalcea, M. echinospora, M. globosa, M. melanosporea. 10.9.77 as 109149 (8pp42)

TOYM ★ D16 37892B/20 ★J5 4044-095

Formaldehyde-dehydrogenase prepn. - by culturing Achromobacter, Arthrobacter, Proteus, Agrobacterium, Escherichia or Micprococcus microorganism

TOYOBO KK 13.09.77-JA-110971
B04 (07.04.79) C12d-01/02 C12d-13/10

Formaldehyde-dehydrogenase (I) prepn. comprises (1) accumulation of (I) in culture medium (II) or mycelium of microbial (III) which belongs to Achromobacter, Arthrobacter, Proteus, Seratia, Agrobacterium, Escherichia or Micrococcus and forms (I), by incubation of (III) in (II) and (2) collection of (I) from (II) or mycelium of (III).

(I) is used as a catalyst in the reaction between oxidised nicotine amide adenine dinucleotide and formaldehyde for formation of reduced nicotine amide adenine dinucleotide and formic acid.

Examples of (III) are Acrobacter purplus IFO 13182 and Proteus burgaris IFO 3045. (II) contains glucose, fructose, sucrose etc.. as carbon source, ammonia, ammonium chloride, urea, etc. as nitrogen source and betaine, methylamine, creatine etc. as (I)-deriving cpd. The incubation is carried out at 15-40 °C and pH 6.0-8.5 for 20-30 hrs. 13. 9. 77 as 110971 (7pp42)

AJIN ★ D16 37893B/20 ★J5 4044-096

L-Arginine fermentative prodn. - by incubating a brevibacterium which is resistant to 2-thiazole alanine and which requires l histidine, l-proline etc.

AJINOMOTO KK 13.09.77-JA-110299
B05 E16 (07.04.79) C12d-13/06

Fermentative prodn. of L-alginine (I) comprises incubating a microbial (II), which belongs to Brevibacterium and has resistance against 2-thiazole alanine and requires L-histidine, L-proline, L-threonine, L-isoleucine, L-methionine or L-tryptophane and produces (I), in a culture medium and collecting (I) accumulated in the culture medium.

Pref. (II) is B. flavum, B. lactofermentum, B. divaricatum etc. Pref. the culture medium contains a carbon source, e.g. glucose, sucrose, acetic acid etc., a nitrogen source, e.g. ammonia, ammonium salts, etc., inorganic salts, e.g. potassium, magnesium, phosphate etc. and other nutrients. Pref. the incubation is carried out at 25-37 °C. and pH 4-8 for about 7 days.

(I) is produced more effectively than by other methods. The yield of (I) produced in a culture medium is elevated, by giving a requirement for L-histidine and other proteins, to a mutant of Brevibacterium having resistance against 2-thiazole alanine. 13. 9. 77 as 110299 (2pp42)

KYOW ★ D16 37894B/20 ★J5 4044-097

Fermentative prodn. of antibiotics - by contacting microorganisms, fixed on a carrier, with a nutrient medium

KYOWA FERMENTATION KK 12.09.77-JA-109716
A97 B04 (07.04.79) C12d-09/06 C12k-01

Process comprises contacting living cells which are capable of producing an antibiotic and fixed on a suitable carrier, with a nutrient medium contng. carbon sources, nitrogen sources and other necessary nutritous ingredients and recovering the antibiotic from the medium.

The fermentative prodn. of antibiotics can be simplified and made continuous. Suitable microorganisms are Penicillium notatum, Bacillus lihceniformis, Penicillium chrysogenum, etc. Those microorganisms may be fixed by polyacrylamide gel methods, collagen methods or calcium arginate gel methods. 12. 9. 77 as 109716 (5pp16)

DAIN ★ D16 37925B/20 ★J5 4044-601

Water soluble peptide glycan hydrolysate - prepd. by treating Streptomyces microorganism cell walls with N-acetyl muramidase; and used in immunological antitumour treatment

DAINIPPON PHARM KK 12.09.77-JA-110308
B04 (09.04.79) A61k-35/74 C07g-17 C12d-13

New peptide glycan hydrolysate is prepared by treating cell walls of Streptomyces microorganisms with N-acetylmuranidase; It is soluble in water and insoluble in ethanol, propanol and acetone; and has mol. wt.: 2. 3 x 10^3 to 4. 4 x 10^4 (by gel filtration); It comprises at least glucosamine, muraminic acid, α, ε-diaminopimelic acid, glutamic acid, alanine, glycine; organophosphorus cpds., hexose and methylpentose;

It has mitogenic activity and immuno-adjuvant activ and is used for immunological treatment of tumours. 12. 9. 77 as 110308 (7pp16)

HIRA/ ★ D16 37981B/20 ★J5 4044

Sepn. of silk material into constituent proteins and peptide(s) subjecting to a phosphatase to hydrolyse the phosphoric di:e bonds

HIRAO C 10.09.77-JA-109016
J04 (09.04.79) C07g-07

Separation of silk proteins comprises subjecting silk p teins obtd. from domestic or non-domestic . silkworms phosphatase to hydrolyse the phosphoric diester bonds ween the constituent proteins thus liberating the constit proteins and peptides.

The sepd. proteins have no molecular weight distrib ion, i. e. have specific molecular weight, thus are usef as standards for mol. wt. measurement such as gel per eation chromatography. 10. 9. 77 as 109016 (3pp119)

AGEN D16 62492A/35 =J7 9009-

Determining biodegradability of a substance - by aerating a soln substance in presence of aerobic bacteria and observing change bacteria population

AGENCY OF IND SCI TECH 30.12.76-JA-159259
*J04 R16 (20.04.79) *J53084-796 G01n-33*

Determn. of biodegradability comprises aerating an aq. soln. of the sample contg. aerobic bacteria, determinin the number of aerobic bacteria before and after the aera ion, and estimating the ease of biodegradation of the sub stance by the change in the number of the bacteria.

Degree of the biodegradability of a substance can be easily and rapidly estimated by simple appts. such as ae -ting device and thermostat. The method is applicable to pure chemical substance(s), exhaust water from factory, etc. 30. 12. 76 as 159259 G01n-33/00 (20. 4. 79) AGENCY OF IND SCI TECH (4pp) (J5 3084796)

USAS D16 16917T/11 =J7 9009-0

Bacteria determination in urine - by bioluminescence reaction bacterial atp

NAT AERO & SPACE ADMIN 30.04.71-US-139250 (04.08.70-U 060950)
*B04 R16 (20.04.79) *DT2138-841 G01n-33/16 +G01n-31/14*

Bacteria in urine samples are detected and counted by a highly sensitive, rapid, accurate and reproducible procedure.

In the procedure, (a) non-bacterial ATP-contg. cells are disintegrated (e. g. by a pref. anionic or nonionic det -gent), (b) the non-bacterial ATP is decomposed (e. g. by an ATPase), (c) the ATP-decomposing agent is remove (d) the bacterial cells are disintegrated to liberate their ATP, (e) the pH is adjusted to a value (pref. 7. 4) favourable for a bioluminescence reaction of ATP with a luciferase-luciferine mixt. (f) a luciferase-luciferine mixt. cont Mg^{++} or Mn^{++} ions is added, and (g) the quantity of light emitted is determined. 4. 8. 71 as 058392 (clg. 4. 8. 70, 30. 4. 71-US-060950, 139250) G01n-36/16, 31/14 (20. 4. 79) NATIONAL AERONAUTICS AND SPACE ADMINISTRATIO (10pp) (J4 7004349)

CLBC D16 37231T/23 =J7 9009-51

Determination of triglycerides in aqs liquids - - by hydrolysis wit lipase and protease and measuring the glycerol c

CALBIOCHEM 16.12.70-US-098904
*B04 R16 (25.04.79) *BE-776-034 G01n-31/14 G01n-33/16*

The glycerol is determined by treatment with a glycerol kinase, pyruvate kinase, lactate dehydrogenase, nicotinamide-adenine dinucleotide reduced form (NADH) adenine triphosphate, phosphoenol pyruvate, Mg ions and a buffer which in a series of reactions converted glycerol to lactat and (NADH) to (NAD) and the decrease in optical density a 340nm. is determined. Two reagents are prepd. (A) contg. the lipase and protease and (B) the glycerol kinase, the remaining ingredients being added to either (A) or (B). 15. 12. 71 as 101123 (clg. 16. 12. 70-US-098904) G01n-33/1 31/14 (25. 4. 79) CALBIOCHEM (8pp) (J4 7012650)

NTI- ★ D16 B/20 ★RU --64-992
osynthesis of erythromycin - by cultivating Streptomyces erythreus 91 on new medium
INTR ANTIBIOTICE 20.04.72-RU-070614
B03 (30.09.78) C12d-09

NTI- ★ D16 B/20 ★RU --65-020
-Hydroxy-tetracycline biosynthesis - by cultivation of Streptomyces imosus T-107 on nutrient agar
INTR ANTIBIOTICE 06.06.72-RU-071150
B05 (30.09.78) C12d-09

JYGA- ★ D16 B/20 ★RU --65-974
Bioflavone concentrate prepn. - by fruit mash extraction, sulphur di:oxide treatment and controlled acidification
UNIV GALATI 14.12.72-RU-073154
B04 (30.09.78) C12e-03/08

ALIB= ★ D16 38385B/20 ★SU -614-113
Intracellular bacterial aminopeptidase sepn. - includes treating Bacillus subtilis cellular fluid with aq. alkyl-tri:methyl-ammonium salt to increase yield
AS LITH BIOCHEM 29.03.76-SU-339358
B04 (14.06.78) A61k-37/48 C07g-07/02

Aminopeptidase is sepd. from Bacillus subtilis cells by cell fragmentation by centrifuging them and sepg. the aminopeptidase at pH 5.8-6.5.

To increase the yield a salt, pref. cetyltrimethylammonium bromide, or a mixt. of alkyltrimethyl-ammonium salts with 10-16C aliphatic chain is added to the mixt. after centrifuging in proportion of 0.4-0.5g per 1g protein, the centrifuging is repeated then 0.07-0.3g per 1g protein

nonionic detergent with hydrophilic-lipophilic balance is added to the supernatant liquid. Yield is increased by 30-40%.

Vaitkyavichus R.K., Chyapene L.K., Masyulite G.B. et al. Bul. 25/5.7.78 29.3.76 as 339358 (2pp1349)

FEDO/ ★ D16 38400B/20 ★SU -614-128
Microbiological citric acid prodn. - by culturing producer strain using stagewise addn. of molasses as carbon source to increase yield
FEDOSEEV V F 20.12.76-SU-432675
E17 (05.06.78) C12d-01/04

Citric acid is produced using a nutritive medium contg. molasses, mineral salts and a disinfectant, adding a chemical agent, such as $K_4/Fe(CN)_6/$; introducing microorganisms, fermenting with aeration; and isolating the citric acid so produced from the medium.

The yield of citric acid can be increased by supplementing molasses during the fermentation process in three stages, in an amt. securing a sugar content of 1.8-2.0 wt.% (w.r.t. the medium). In the first stage, a molasses soln. is introduced during the mycelium growth period, every hour in an amt. corresponding to 0.2-0.4 vol.% w.r.t. the medium. In the second stage, during the citric acid formation, the molasses is added in an amt. of 0.5-0.8%; and in the third stage (period of slackening acid formation) 0.3-0.6%.

Fedoseev V.F., Borisovich V.A, Kupchenko V.A. et al. Bul. 25/5.7.78 20.12.76 as 432675 (2pp70)

ASBI= ★ D16 38401B/20 ★SU -614-129
Biologically active fusaric acid prepn. - by culturing Fusarium oxysporum fungal strain in specified nutrient medium
AS USSR BIOCHEM PHY 30.12.76-SU-437175
E13 (05.06.78) C12d-13

Fumaric acid is obtd. by sub-surface cultivation of the fungus Fusarium oxysporum 53382 in a nutrient medium contg. sources of carbon, nitrogen and mineral salts. Subsequently, the prod. is separated. In order to improve yield, the nutrient medium comprises (in g/l) glucose 70-100; $NaNO_3$ 7-10; KH_2PO_4 0.1-0.2; $MgSO_4$ $7H_2O$ 0.47-0.53; $FeSO_4.7H_2O$ 0.001-0.002; and KCl 0.47-0.53. The ratio of sodium nitrate to glucose is 1:10.

Disler E.N., Goncharova L.F., Medvedeva T.N., Bul. 25/5.7.78 30.12.76 as 437175 (2pp932)

KHNO= ★ D16 38402B/20 ★SU -614-13
Beer wort prodn. from non-malted material - using comple enzyme compsn. contg. bacterial and fungal alpha-amylase an protease, beta-glucanase and hemicellulase
KHARK BR NONALCOHOL (BIOT=) 08.07.76-SU-382209
(06.06.78) C12d-13/10

The enzymic compsn. contg. a bacterial α-amylase and a fungous protease, is improved by addn, of a fungous α-amylase, a bacterial protease, β-glucanose and hemicellulase, whereby the utilisation of the starting material is enhanced and the carbohydrate and nitrogenous compsn. c the wort is near that of a wort produced from a malted material.

The compsn. contains (in units/g) bacterial α-amylase (pref. produced by Bacillus subtilis) 400,000-800,000, fungous α-amylase (pref. from Aspergillus orgzae) 270,0 -600,000 bacterial protease (pref. from Bacillus subtilis) 53-80, fungous protease (pref. from Aspergillus oryzae and Aspergillus terricola) 27-40 β-glucanase 600-1000 an hemicellulase 200-400.

Lifshits D.B., Mikhailovskaya B.Ts., Kozlovskii G.I. et al. Bul. 25/5.7.78 8.7.76 as 382209 (4pp70)

PLAN= ★ D16 38403B/20 ★SU -614-13
Antibiotic nisin prodn. for food preservation - includes preliminar cultivating of streptococcus lactis strain using skimmed milk an milk hydrolysate to increase activity
PLANTS BACTERIAL 22.03.76-SU-336012
B04 (05.06.78) C12d-13/10 C12k-01

Prodn. of nisin, is improved by cultivating the producer microorganism in a nutritive medium contg. 93-97% of skimmed milk and 7-3% of a fermentative hydrolysate of milk. The cultivation is carried out for 5-7 days. By thi method the process is simplified and the cost is reduced.

The antibiotic activity of the prod. is increased using Streptococcus lactis strain adicate by store preliminary culturing.

Litvinova N.M., Sileva M.N., Vorohina, L.N., Bul. 25/5.7.78 22.3.76 as 336012 (2pp70)

CHEC/ ★ D16 38654B/20 ★SU -615-12
Microorganisms culturing unit - has vertical and horizontal partition with holes for crossover circulation flows to improve nutrien medium mixing
CHECHURA A A 07.04.76-SU-346798
(23.06.78) C12b-01/10

Crossover circulation flows ensuring total mixing of the medium in the microorganisms culture unit are ensured b longitudinal vertical partitions bounding the lateral channels.

The transversal partitions are fitted between the longitudinal ones to form sections with alternate horizontal partitions contg. central holes. The flow between adjacen section is through openings in the vertical partitions in the zone of aerators mounting.

Chechura, A.A., Melnikov, I.A., Boiko, V.I. et al. Bul. 26/15.7.78. 7.4.76 as 346798 (2pp89)

INMI= ★ D16 38655B/20 ★SU -615-13
Microbiological 5-inosinic acid prodn. - using Brevibacterium ammoniagenes strains as high yield producers, useful as foo flavouring agent
IND MICROORG GENET 30.09.76-SU-408841
B02 E11 (D13) (23.06.78) C12d-13/06

5-Inosinic acid (I) is produced by Brevibacterium ammoniagenes in a nutritive medium contg. sources of carbon and nitrogen, mineral salts and a source of growth factor

The yield of (I) is improved by using strains Brevibacterium ammoniagenes VNII genetika 377 and 380. A maize extract and a yeast autolysate are used as sources of the growth factors; the medium also contains glucose. The process is simplified and the cost is reduced. The 5-inosinic acid improves the taste of various food prods.

The above strains can be cultivated in a synthetic medium (in contrast to the kindred known strain Br.ammoniagenes 255-5) in presence of 8-azaguanine. The strain Br ammoniagenes-377 is characterised by lower adenine consumption, and strain 380 accumulates less by-products.

Erokhina, L.I., Kazarinova, L.A., Lukin, N.S. et al. Bul. 26/15.7.78. 30.9.76 as 408841 (3pp70)

KIFO= ★ D16 38656B/20 ★SU -615-131
Continuous alcohol fractional distillation system - using specified circulation loop forming connections to reduce heating power consumption and accelerate fractionation
KIEV FOOD IND TECH 20.09.76-SU-406796
(23.06.78) C12f-01/08

The consumption of energy for heating, is reduced and higher yield and enhanced quality of rectified alcohol is obtd. due to the continuous distillation and rectification system. The lower part of the distillation column is connected to the top by the pipe and pump of the dephlegmator in the rectification column to form a circulation loop. The vat of the purification column is connected to the fusel oil column by pipes of the dephlegmator, as well as by fractionating and final purification columns.
Tsygankov, P.S., Shiyan, P.L. Bul. 26/15.7.78. 20.9.76 as 406796 (2pp89)

AJIN D16 69160W/42 =US 4152-209
Purine nucleoside-5-phosphate-2 or 3 -mono or di-phosphates - antitumour agents prepd from donor and acceptor nucleotides by incubation with a pyrophosphoryl transferase
SANRAKU OCEAN 16.12.74-JA-143546 (29.03.74-JA-034625)
*B02 (01.05.79) *DT2510-327 C07g-07/02*

Enzyme present in Streptomyces and Streptoventicillium has a substrate specificity for a donor (deoxy)nucleotide and a capability of transferring a pyrophosphonyl gp. from the 5'-position of the donor nucleotide to the 3'(2')-position of an acceptor nucleotide.

Its prepn. comprises cultivating a strain of Streptomyces or Streptoventicillium possessing nucleotide pyrophosphotrausferase activity (e.g. Streptomyces adephospholyticus nov. sp. ATCC 3112) in a broth, and recovering the enzyme. 27.4.77 as 791277 Div. ex. 4059487 (+18.3.75-US-559462)(17pp997)

BEEC D16 46856U/33 =US 4152-210
Biochemical reaction with magnetisable active component carrier - - with polymer coating for attaching to active component
BEECHAM GROUP LTD (NATR) 27.08.71-GB-040297
*J04 (01.05.79) *J48033-088 C07g-07/02*

A biochemically reactive substance comprises an enzyme attached to a solid Fe (oxide) ferromagnetic support in particulate form, where the particle dia. is 5-1000 μ. The enzyme may be bound to the support via. a layer of organic polymeric material.

The material may be magnetically sepd. from a reaction medium after a biochemical reaction has taken place. 30.4.75 as 573306 (+18.8.72-US-281655)(4pp997)

NOVO D16 15971B/09 =US 4152-211
Glucose isomerase activated by water-soluble iron salt - is converted into dried particles before use
NOVO INDUSTRI A/S 23.08.77-US-827030
*(D17) (01.05.79) *BE-869-869 C07g-07/02*

A cell mass particulate form of glucose isomerase is iron-activated by admixing a solid non-toxic water-soluble Fe salt, in an amt. of 0.050-2.0 w/w of iron.

The Fe salt may be ferric sulphate, chloride, citrate, pyrophosphate, nitrate, ferrous sulphate, lactate, citrate, and acetate. 23.8.77 as 827030 (8pp997)

BIOR D16 15356X/09 #US 4152-212
Purificn. of glucuronoglycosaminoglycan haluronate lyase - by eluting on ion exchange resin, dialysis, and eluting from dextran gel
BIOREX LAB LTD 07.09.72-GB-041538 (25.02.76-US-661551)
*A96 B04 (01.05.79) *GB1425-918 C07g-07/02*

Very pure and highly active glucuronoglycosaminoglycan hyaluronate lyase is prepd. by (i) contacting a crude lyase-contg. soln. with a cross-linked polyacrylic divinyl-benzene resin contg. COOH gps. as active gps.; (ii) eluting the absorbed lyase from the resin; (iii) dialysing the eluate fractions which are rich in the desired lyase against a satd. aq. soln. of $(NH_4)_2SO_4$ and (iv) further purifying the enzyme concentrate thus obtd. by contacting the concentrate with a cross-linked dextran gel contg. active carboxymethyl gps. followed by elution of the gel to give a soln. of the desired lyase.

Prods. are used for treating cardiac arrythmics, thrombi , atherosclerosis, cerebral infarcts, etc. 25.2.7
661551 (5pp974)

JOHN- ★ D16 38790B/20 ★US 415
Detection of oxygen consuming bacteria in samples - by cultiv in sealed vessels contg. oxygen and measuring pressure redn.
JOHNSTON LAB INC 10.03.77-US-776426
B04 J04 (D13) (01.05.79) C12k-01/04

Oxygen-consuming bacteria are detected by taking a s
able sterile container with sterile liq. culture medium
and with O_2-contg. gas in a head space above the medi
Then the container is inoculated with sample and seale
and it is connected to appts. for measuring reductions
pressure of the gas in the container.

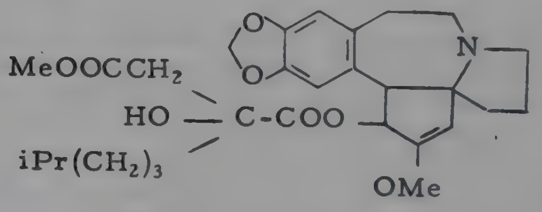
After an appropriate time for bacterial growth any
duction of gas pressure (due to O_2 consumption) is dete
mined by comparison with a reference standard (with a
owance made for reductions due to measurement deviat
ionsor variations in experimental conditions).

A rapid, economic and simple method that can be co
bined with automatic scanning and electroni detection
ascertain bacterial growth. Useful in detection of bac
ial contamination in the medical field, in the food proce
ing, pharmaceutical and cosmetic industries, etc.
10.3.77 as 776426 (16pp1248)

USDA ★ D16 38791B/20 ★US 4152-
Prepn. of cephalotaxine and related antitumour alkaloid(s) - cultivation of Cephalotaxus harringtonia tissue in nutrient mediu
US SEC OF AGRICULTURE 07.10.77-US-840423
B04 (01.05.79) C12d-13

Cephalotoxine (I), harringtonine (II), isoharringtonine (
homoharringtonine (IV), deoxyharringtonine (V) and hon
deoxyharringtonine (VI) alkalids are obtd. by culturing
Cephalotoxus harringtonia living tissue in a nutrient me
ium. Callus formation occurs and the callus activity se
retes (I)-(VI) into the medium, from which they are rec
ered. (VI) is stated to be new and it has the formula:

(VI)



The alka
oids are mo
easily reco
ered from t
medium tha
from callus
tissue as in
prior metho
(I)-(VI) and
their derivs
are known a
titumour agents esp. effective against leukemia and lymphoid leuken
ia. 7.10.77 as 840423 (5pp1248)

MATU D16 39706A/22 =US 4152-21
Controlling pH of culture soln. - by electrolysis through io exchange membrane
MATSUSHITA ELEC IND KK 12.11.76-JA-136652
*J03 P13 R16 R26 (01.05.79) *NL7712-467 +C12k-01/10*

Appts. for controlling the pH of a culture soln. for a livi
organism comprises a pH electrode immersed in the culture soln. in a vessel. An electrolyte vessel is immerse
in the culture soln. and at least a portionof the wall of th
electrolyte vessel contg. electrolyte is composed of an io
exchange membrane so that the membrane is in contact w
the culture soln.

A first electrolysis electrode is immersed in the elect
rolyte and a second electrolysis electrode is immersed in
the culture soln. so that the ion exchange membrane is
positioned between the two electrodes. A D.C. voltage is
applied between the two electrodes and a pH controller tha
activates the D.C. voltage applying means in accordance
with the signal produced by the pH electrode. 14.11.77 a
851583 (8pp1363)

ITMI- ★ D16 38804B/20 ★US 4152-242
Electrophoresis gel appts. for analytical determinations - in which gel has bore for accommodating analytical reagent
INT FOUND MICROBIOL 17.12.73-US-425089 (29.07.71-US-167367)
B04 J04 R16 (01.05.79) G01n-27/26

analysis of a sample contg. unknown components is car-d out using an appts. which comprises a hollow enclos-e, an electrophoretic gel column within the enclosure and apted to receive the sample at one end. The various mponents are sepd. electrophoretically which disposes em across the column at intervals along it. The gel colnn has a central bore open for receiving an analytical reent for contacting the sepd. components of the sample sposed along the column.

The method relates to the detection of antigens, enzym- and other biologically active and inactive components of ological fluids and other extracts using electrophoresis chniques. The gel need not be removed from the glass be and the thin discs sepd. from each other for analysis. .12.73 as 425089 (7pp295)

REW/ ★ D16 38887B/20 ★US 4152-412

mmunising animals with vaccine contg. coloured particles - to rovide visible mark of vaccination

BREWER J H 04.11.77-US-848408 (02.04.76-US-673117)

B07 C03 P32 (01.05.79) A61d-01/02 A61d-07 A61k-39/10

dmin. of immunogenic agents such as vaccines, antigens nd toxoids to animals is improved by injecting them in onjunction with an acceptable coloured particle of such a ize that it remains at the site of injection, providing visibe evidence that the animal has been immunised.

Pref. the agent is adsorbed on an activated charcoal article $<$ 0.5 microns size. Esp. it is Brucella abortis accine (esp. in lysed form) or rabies vaccine.

It is possible to determine by simple examination if the nimal has been vaccinated. By using an adsorbed vaccine mmunogenic potency is improved and the agent is released lowly i.e. acts as a booster. Lysed B. abortus vaccines ave longer shelf-life and avoid problems of infection comared with live vaccines. 4.11.77 as 848408 (4pp1251)

CHRR ★ D16 38888B/20 ★US 4152-413

Oral vaccine contg. virulent Treponema hyodysenteriae isolate - useful for increasing the resistance of swine to dysentery infection

CHROMALLOY AMERICAN 18.08.78-US-934812

B04 C03 (01.05.79) A61k-09/28 A61k-39/02

Oral prepn. for increasing the resistance of swine to swine dysentery infection, comprises enteric coated pellets contg. conctd. killed cells of a virulent isolate of Treponema hyodysenteriae. The coating is resistant to dissolving in the swine stomach while it dissolves in the intestines to release the cells for immunising.

The oral vaccine is partic. useful for admin. to young pigs which are subject to swine dysentery infection, and is fed to the pigs on the basis of a regimen which provides massive introduction of the killed cells into the colon area. The vaccine can be mixed with feed material, and administered at least once every 24 hrs. for $\geqslant$ 5 days. 18.8.78 as 934812 (6pp957)

IOWA ★ D16 38889B/20 ★US 4152-414

Vaccine for increasing resistance to swine dysentery infection - comprising killed cells of treponema hyodysenteriae and Bacteroides vulgatus or Fusobacterium necrophorum

IOWA STATE UNIV RES INC (CHRR) 18.08.78-US-935000

B04 C03 (01.05.79)

Oral prepn. for increasing the resistance of swine to dysentery infection comprises enteric-coated pellets contg. conctd. killed cells of a virulent isolate of Treponema hyodysenteriae with 0.25-2 pts. of conc. killed cells of Bacteroides vulgatus or Furobacterium necrophorium or their mixts.

The vaccine has an enhanced action in increasing the resistance of swine to dysentery infection, and can be used either as an oral or parenteral vaccine or may be further adapted for intramuscular injection. The oral vaccine can be mixed with feed. 18.8.78 as 935000 (7pp957)

IOWA ★ D16 38890B/20 ★US 4152-415

Vaccines contg. virulent Treponema hyodysenteriae isolate - for increasing the resistance of swine to dysentery infection

IOWA STATE UNIV RES INC (CHRR) 18.08.78-US-935062

B04 C03 (01.05.79) A61k-09/28 A61k-39/02

The resistance of field-raised swine to dynsentery infection is increased by first parenterally administering a virul ent isolate of killed cells of Treporema hyodysenteriae, $\geqslant$ 1 injection given per ml. and each injection contg. $\geqslant$ 2 mg of cells; and not less than 5 days later, a series of oral admin. of enteric-coated pellets contg. coc. killed cells of T. hyodysenteriae, being given $\geqslant$ 1 every 24 hrs. for $\geqslant$ 5 days, and the oral prepn. providing $\geqslant$ 3 mg. of cells.

The vaccine is partic. useful for admin. to young pigs, and the oral vaccine can be mixed with the feed material. The parenteral vaccine acts synergistically with the delayed oral vaccine. 18.8.78 as 935062 (8pp957)

ANVR D16 32540U/23 =US 4152-423

Water-soluble immunological adjuvant - consisting of an oligomer of microbial cell wall components

AGENCE NAT VALORISATION 19.11.71-FR-041610

*B04 +P31 (01.05.79) *DT2256-838 A61k-39/02*

Compsn. for stimulating immunisation of a warm-blooded animal comprises an antigen and an adjuvant (I). (I) is (1) a H_2O sol. Mycobacteria or Nocardia-extracted polymer of a mucopeptide, which is free of its proteins and nucleic acids, linked with a glycolipid having an arabinogalactan; (2) the polymer having $<$ 5% lipid content and usual cell wall amino sugars and amino acids; (3) the adjuvant being stable, insol. in ether, $CHCl_3$, acetone and $EtOH/CHCl_3$ mixts., and (4) adjuvant is free of hypersensitivity effects to tuberculin, having reduced pyrogenic effect and virtually free of toxicity. 16.6.77 as 806987 (10pp963)

HOFF ★ D16 38893B/20 ★US 4152-424

Antibiotic 1745 A-X prepd. from Streptomyces antibioticus - using erythronolide A oxime as substrate, effective against gram positive bacteria

HOFFMANN-LA ROCHE INC 16.03.78-US-887160 (04.02.74-US-438987)

B04 (01.05.79) A61k-35

Antibiotic 174.5A/X (I) is a new cpd. having the following characteristics; (a) m.pt. 146-9°C; (b) analysis C 58.69% H 9.26%, N 3.45%, O (by difference) 28.60%; (c) has characterstic infra-red and n.m.r. spectra reproduced in the specification; (d) its low resolution mass spectrum has molecular ion at m/e 734 and major fragment peaks at 701, 649, 617, 573, 560, 546, 462, 416, 398, 251, 174, 158 and 145.

(I) is prepd. by fermentation of Streptomyces antibioticus ATCC 11891 on a medium contg. erythronolide A oxime as substrate. (I) is useful as an antibacterial for use against Gram positive species. 16.3.78 as 887160 Div. ex. 3928387 (+23.7.75; 24.1.77-US-598483; 761922)(8pp1251)

UYDE- ★ D16 38924B/20 ★US 4152-513

Prepn. of alkyl glycoside(s) of amino sugars - with improved proportion of beta-anomer present in prod.

UNIV OF DELAWARE 01.06.77-US-802424

B03 (01.05.79) C07h-05/06 C07h-15/02

Alkyl glycosides of amino sugars (I), as complex chiral α- and β-anomers, are obtd. by reacting a N-acylpyranosamine with a 1-4C aliphatic alcohol in presence of an acidic ion exchange resin catalyst. Reaction is at 30-100°C with continuous removal from the reaction zone by distn. of the water formed in the reaction.

(I) are obtd. with an improved proportion of β-anomer in the prod. (I). (I) are known to promote the growth of Lactobacillus bifidus, the β-anomers having most of the activity (mixts. of various anomers of cpds. (I) can show synergistic activity in this respect). (I) are also useful as promoters for the healing of wounds, and they are used to treat burns, skin inflammation and psoriasis. Also promotion of L. bifidus growth promotion is used in treating liver disorders. (I) are applied to hair to control its growth. 1.6.77 as 802424 (-pp1248)

See Also

D12 GB 2007077	D13 SU 614784	D17 J5 4044045
D18 US 4151848	D23 BR 7806667	D25 EP ---1853

D17: SUGAR; STARCH

GRAC ★ D17 37194B/20 ★BE -873-390
Spray drying solns. contg. mixture of sugars - in two stages the first in presence of recycled product
GRACE W R CO 11.01.78-US-868661
(02.05.79) C13f

The process which forms a stable particulate product comprises drying the soln. dispersed in a current of heated gas in the presence of conditioned solns. introduced separately and recycled at about 1-10 pts./pt. of soln., solids the inlet and exit temp. of the heated gas being 100-300°C and 60-120°C respectively. The solid product obtd. is then contacted with a drying gas at a temp. below the melting point of the solid for sufficient time to reduce the water content to 0.5% max.

The process is esp. used for corn syrups of high fructose content which are difficult to crystallise. It enables a stable solid product, whereas known processes applied to mixed sugar solns. give a solid which does not remain in the solid stage for long. 10.1.79 as 873390 (9pp597)

SALZ ★ D17 37267B/20 ★DT 2749-282
Continuous (sugar) centrifuge with steaming device - has accelerator dome and steam dome around distributor pot for better mixing
SALZGITTER MASC 03.11.77-DT-749282
J01 P41 (10.05.79) B04b-15/02

A continuous centrifuge, esp. a sugar centrifuge, has a steaming device with steam nozzles directed on the bowl wall and a steam nozzle directed against the outflow rim of a distributor pot. The accelerator dome is surrounded by a revolving steam dome to create between them a steam acceleration chamber. This chamber has a steam inlet slot near the steam nozzle and a steam outlet near the outflow rim of the accelerator dome.

The result is a much more improved mixing of the steam with the mixt. to be sepd. 3.11.77 as 749282 (12pp39)

SALZ ★ D17 37268B/20 ★DT 2749-283
Device for continuous sugar centrifuge - has annular accelerator elements attached to central tube in bowl
SALZGITTER MASC 03.11.77-DT-749283
J01 P41 (10.05.79) B04b-15/12

A cleansing device for a continous centrifuge has inside the bowl an annular accelerator element. A cleansing medium is applied to the inside periphery of this element where it is accelerated and leaves the outside periphery in the direction to the massecuite on the inside surface of the centrifuge bowl.

This improves the efficiency of the cleansing process and keeps moisture of the cleansing medium away from the separated solids. 3.11.77 as 749283 (13pp39)

SALZ ★ D17 37269B/20 ★DT 2749-284
Continuous dissolution centrifuge esp. for sugar - with baffle plates, catch tray and solution trough in solids receptacle
SALZGITTER MASC 03.11.77-DT-749284
J01 P41 (10.05.79) B04b-15/12

A continuous centrifuge is fitted with a ring main for a solvent (water) which is sprayed against an apron and against the inner wall of the receptacle for the solids. An annular V-shaped soln. trough at the bottom of this receptacle is arranged near to an outlet pipe and includes an inclined catch tray for the solids/solvent mixture.

This lengthens the path available for the dissolution of the solids to such an extent that they are dissolved to a large extent within the centrifuge casing. 3.11.77 as 749284 (12pp39)

SALZ ★ D17 37270B/20 ★DT 2749-285
Continuous centrifuge esp. for sugar - has liquid receptacle subdivided by concentric walls with axially movable upper part
SALZGITTER MASCH 03.11.77-DT-749285
J01 P41 (10.05.79) B04b-11/02

A continuous centrifuge has in the bowl several collec
grooves at different levels, which discharge into a lic
selector space. This space is subdivided by concentr
walls into several compartments. One of these walls
in two parts and the upper part can be moved axially.

This adjustment makes it possible to separate the
before and after a certain degree of centrifugal actior
independent of the composition of the massecuite and
the working conditions. 3.11.77 as 749285 (13pp39)

NISO ★ D17 37884B/20 ★J5 404
Powdery starch sugar contg. cyclodextrin - obtd. by dehydr
liquor in an open-drum type dryer
NIPPON SHOKUHIN KAK KK 12.09.77-JA-109726
(D16) (07.04.79) C13k-01/06 C13k-13

Powdery starch sugar (I), contg. cyclodextrin (II) is p
by dehydration of sugar liquor (III) of dextrose equival
<25, which contains <15 wt.% of (II), in a open-drum
dryer (IV).

The method has been developed fro prodn. of (I), w
can easily form clathrate cpd. (I) does not have the pr
art defect of high-hydroscopicity. (II) is produced by c
tact of starch sugar liquor with cyclodextrin-transphe
which is produced e.g. from Bacillus macerans, B.c
culans, B. megaterium. (I) is flaky powder. (III) is dr
in (IV), the drying surface of which is heated at 120-1
with steam at 3-5 kg/cm^2. 12.9.77 as 109726 (6pp42)

OKAM/ ★ D17 38177B/20 ★J5 404
Heat insulating compsn. of saccharide-contg. lime - for applyi
molten steel, giving a lower temp. decrease than acidic
insulators
OKAMURA C 20.09.77-JA-112185
E33 M22 P53 (11.04.79) B22d-07/10 B22d-45

Waste lime used in the refining of the saccharide itsel
contg. a small amt. of saccharide, is applied to the su
face of molten steel, as heat insulating material.

In an example, the waste lime 3 pts. wt. and silicat
(SiO_2 70%, Al_2O_3 15%, K_2O + Na_2O 5.5%) 1 part were m
ed, and dried at 200°C. The resultant heat insulating
erial was pulverised and scattered on the surface of m
steel in a 100 ton ladle, in the amt. 1.5-3.5 kg. per to
steel. The temp. decrease of the molten steel betweer
tapping out and the pouring was 7-14°C. The temp. decrease of the steel covered with the usual acidic heat ir
sulator was >15°C. 20.9.77 as 112185 (3pp8)

GIDR= ★ D17 38386B/20 ★SU -614-
Reprocessing of cotton husks - by two/stage hydrolysis with
hydrochloric acid using additional hydrogen chloride gas in sec
stage
GIDROLIZPROM PROD 10.11.75-SU-324801
E13 (14.06.78) C07h-03/02

The husks are reprocessed by hydrolysis with 2-9% mi
eral acid, (pref. HCl), at 100-120°C, sepg. cellulose
residue, washing, wringing out to 30-40% dampness the
repeating the hydrolysis with 39-41% HCl in a flow of H
gas at 30-40°C.

To simplify the technology sepn. of the cellulose residue is conducted by hydrotransportation on sloping or
horizontal sieves. Cellolignine is usually subjected to
additional nitric acid or ammonia deliquification. Fron
100 kg husks 25 kg phtose sugar is obtd. from first stag
and hydrolysis and 50 kg hexose sugar is obtd. from
second stage; an overall yield of 96%.
Lebedev N.V., Babina O.M., Bul. 25/5.7.78 10.11.75
as 324801 (2pp1349)

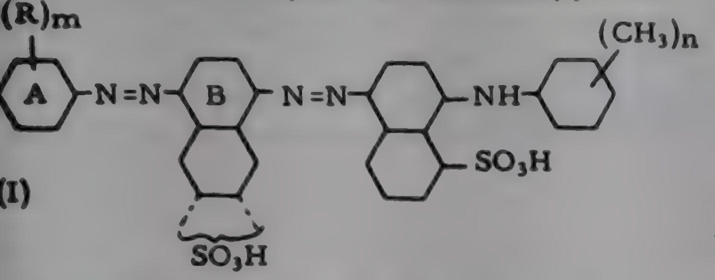
See Also

D13 J5 4044057 D16 GB 1545766 D16 J5 404409
D16 US 4152211

D18: SKINS; HIDES; LEATHER; TOBACCO

LTH- ★ D18 37141B/20 ★BE -871-849
yeing wool and leather in solid, marine blue shades - using acid is:azo dyes, without using oxidising agents
ATSA ALTHOUSE TER 08.11.78-BE-871849
A60 E21 F06 (08.05.79) C09b D06p

Wool or leather is tinted in blue or marine blue shades without risk of shade degradation by reduction by using a dye, or mixt. of dyes, of formula (I).



(I)

In (I), R is lower alkyl, pref. CH_3, m is 1 or 2, and when m is 1, R is ortho to the azo bridge, n is 0, 1 or 2 and when it is 2, one of the CH_3 is para to the NH bridge.

Use of (I) avoids the need for oxidising agents such as potassium bichromate to counteract the reducng effects which gives less polluted effluent waters. 8.11.78 as 871849 (11pp1365)

AMMA ★ D18 37210B/20 ★BE -873-442
Reconstituted tobacco from suspension of tobacco powder in adhesive - fed from continuous intensive mixer onto drying band conveyor
AMF INC 14.01.78-GB-001541
P15 (02.05.79) A24b B01f

Separate supplies of tobacco and adhesive are fed continuously in metered, relative proportions into a high intensity mixer. The mixer is pref. a hammer mill or gripper etc. and produces a homogeneous suspension which is discharged before it has a chance to settle.

The discharged suspension is pref. spread directly as a thin, continuous layer on to a moving, endless conveyor band. The layer is pref. dried to form a sheet or strip of reconstituted tobacco leaf. Suspension retention time in the mixer is pref. <1 min.

Used for producing reconstituted tobacco leaf from a suspension of finely divided tobacco in a liq., aq. adhesive 12.1.79 as 873442 (16pp448)

MORG/ ★ D18 B/20 ★DK 7704-163
Anti-smoking agent
MORGILS C U 21.09.77-DK-004163
B05 (23.04.79) A61k-31

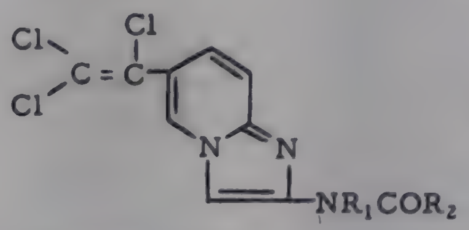
KIMB ★ D18 37435B/20 ★DT 2847-860
Reconstituted tobacco mfr. from whole plants - by separate grinding of woody stem parts and of leaves
KIMBERLY CLARK CORP 04.11.77-US-848431
P15 (10.05.79) A24b-03/14

Reconstituted tobacco is made from whole tobacco plants by sepg. the woody part of the stem from the leaves and by grinding the two separately to different degrees. The leaves are extracted before the grinding operation. Both parts are finally combined to produce a tobacco foil for shredding into cigarette tobacco by methods used in the paper mfr.

This gives the reconstituted tobacco foil adequate strength for handling without requiring excessive treatment or grinding of the leaves. 3.11.78 as 847860 (17pp39)

MERI ★ D18 37528B/20 ★EP ---1-887
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) - useful as anthelmintics and fungicides
MERCK & CO INC 12.10.77-US-841260
B02 C02 E13 (D13 D21) (16.05.79) A61k-31/44 C07d-213 C07d-233 C07d-471/04
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

2-(Substd.-carbonylamino)-5-trichlorovinylimidazo[1,2-a]pyridines of formula (I) and their acid-addn. salts are new:



(I)

(R_1 is H or 1-6C alkyl; and R_2 is 1-6C alkyl or alkoxy).

(I) are anthelmintics and are fungicides for protecting plants, soils, fruits, seeds, fur, wood, paint, textiles, cosmetics, leather, tobacco, rope, paper, pulp, plastic, fuel, rubber, food etc.

9.10.78 as 300474 (23pp1248)
(E) ISR: DT2655681; US3701780; DT2702790; GB1473819; US4092321;
1 Journal Reference.

BRTA ★ D18 37602B/20 ★GB 1546-063
Mixing chamber for diluting tobacco smoke - in smoking engine with tangential smoke inlet to chamber
BRIT AMER TOBACCO LTD 00.00.78-GB-040139 (09.05.75-GB-019607)
J04 (16.05.79) B01f-03/02

An aerosol diluting appts. comprises a chamber having an aerosol admission port opening tangentially into the chamber. The chamber also includes a diluted aerosol outlet port and at least one gas admission port. Admission of the aerosol to the chamber is controlled, as is the admission of gas to the chamber for mixing with and diluting the aerosol. The outflow of the diluted aerosol from the chamber is also controlled.

Pref. the diluted aerosol outlet port and valve for controlling the outflow of the diluted aerosol are positioned at one end of the chamber while the gas admission port is at the other end. The device is esp. for diluting tobacco smoke with air in a smoking engine or inhaler. The device mixes the tobacco smoke with air over a wide range of concns. and with high accuracy. 10.5.76 Div. ex 1544481 (6pp295)

PIEL- ★ D18 B/20 ★RU --65-000
Hides tanning and treatment - using organic solvents contg. alkali and alkaline earth metal salts and synthetic tanning agents
INST PIELARIE CAUCI 15.05.72-RU-070894
E19 (E37) (30.09.78) C14c-03/02

CIRC- ★ D18 38711B/20 ★US 4151-808
Appts. for spraying hides carried by conveyor - has sensing units which control air to each valve spray head which traverses conveyor section
CIRCLE MACHINE CO 10.03.77-US-776105
P42 (01.05.79) B05b-03/02

The appts. has a rotatable spray unit supported ower the conveyor and its radial arms have spray heads, each under the control of a normally closed valve opened by air under pressure. A series of controls each include a sensing unit arranged as a series extending transversely of the conveyor and dividing the conveyor into lengthwise sections with each unit operated by the passage of a part of a hide along that section.

When operated they provide a signal equal to the length of that part and so control the delivery of air to the control valve of each head traversing that conveyor section as to provide that spray is delivered only when and for the time that the detected part is within the spray path. 10.3.77 as 776105 (13pp968)

BRWI D18 38373Y/22 =US 4151-848
Denicotinising steamed tobacco by treatment with microorganisms - biochemically decomposing nicotine to succinoyl pyridine under controlled conditions
BROWN & WILLIAMSON CORP (BRTA) 17.11.75-US-632863 (13.04.77-US-787242)
*P15 (D16) (01.05.79) *DT2634-186 A24b-15/02*

A smoking product contains tobacco treated by (a) contacting it with an aq. medium contg. $\geq 10^7$ cells/g based on the dry wt. of the tobacco of a microorganism which degrades nicotine through a biochemical mechanism in which 3-succinoylpyridine is formed, and (b) maintaining it in contact with the microorganism for 1-10 hrs. at a moisture level of $\geq$ 50 wt.% based on the total wt. of tobacco and water, at 20-45C, and at an initial pH of 5-8, the tobacco being subjected to steam to bring its moisture level to $\geq$ 15 wt.% prior to its contact with the aq. medium. Pref. the microorganism is selected from Cellumonas sp. and Pseudomonas putida.

The treated tobacco, when incorporated in the smoking product, produces a mild smoke having a reduced nicotine content, there being no loss of desirable flavour, taste and smoking properties. The treating method is esp. useful for burley tobacco. 13.4.77 as 787242 Div. ex. 4037609 (9pp990)

BADM D18 72606Y/41 =US 4152
**Leather scrapings dewatering plant - using steam heated
exchanger and screw extruder with decanter**
ARENCO-BMD MASCH 26.05.76-DT-623498
*C04 (01.05.79) *DS2623-498 +C09h-03*

Removal of water from glue stock is effected by heatin
glue stock to 40-80 (pref. 50-60)°C and, at the same ti
or subsequently, mechanically pressing it to express a
water mixt. The glue stock is then cooled to prevent d
compsn. or cementing.

Prod. is useful as a fertiliser, fertiliser supplemen
animal feed. Method overcomes the problem of disposi
of glue stock which occurs as waste in the fleshing of hi
and skins. Good water removal is achieved without add
of chemicals and with low equipment requirements.
26.5.77 as 800850 (2pp927)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

EA ★ D21 37155B/20 ★BE -871-908
smetic compsn. based on aq. spherule dispersions - contg. fferent active substances or lipid(s)
L'OREAL SA 15.11.77-FR-034249
A96 (10.05.79) A61k B01f

ompsn. comprises spherules constituted by arranged mole ular layers between which is encapsulated an aq. phase ntg. $\geq$1 active substance. The layers are constituted by 1 lipid cpd. of formula X--------Y, in which Y is a pophilic gp. and X is either a nonionic or ionic hydrophi c gp. in which case the spherule dia. is either 100-50000 0000°A or 1,000°A-50,000°A respectively.

The lipid cpds. have a lipophilic/hydrophilic ratio such at they swell in the aq. phase to encapsulate forming a minated phase. The compsn. is characterised in that it obtd. by mixing of $\geq$2 spherule dispersions which differ the nature of encapsulated active substance and/or the pid cpds.

Compsns. are pref. used for cosmetic prepns. esp. sun n prepns. The improvement of using $\geq$2 spherule dis ersions enables a synergistic effect to be obtd. when 2 ctive substances are used or enables different skin pene ration levels by using different lipid cpds. 10. 11. 78 as 71908 Add to 843300 (15pp597)

TRE- ★ D21 37223B/20 ★CH -610-199
wo-component dental compsn. for under-filling, capping and epair - contg. alkyl salicylate and calcium hydroxide
DE TREY AG 24.07.74-CH-010197
E14 (E33) (12.04.79) A61k-05

-Component compsn. for dental purposes has a first com ponent (I) contg. a salicylate of a monohydric alcohol nd a second component (II) contg. $Ca(OH)_2$, but neither omponent contains eugenol.

The compsn. is esp. useful as under-filling under malgam, silicate, plastics and compsn. fillings, esp. n Caries profunda; for direct capping of artifically opened pulp cavities; for the treatment of sensitive necks of eeth; and in new methods for treating fractures of front eeth without pins. It avoids the detrimental effects of ugenol on plastics and compsn. filling. After mixing, he components rapidly obtain the consistency of dental cement and, because of their thixotropic properties, can e applied easily. Wide variations in the mixing ratio are ot detrimental to the results. 24. 7. 74 as 010197 (3pp)

WRIL D21 49063R/27 =DS 2000-851
Anti -caries chewing gum containing alde - hydes
WRIGLEY W JR CO (WLEY) 18.09.69-US-858996 (10.01.69-US-790314)
*B07 (10.05.79) *BE-744-161 +A23g-03/30 A61k-07/24*

Chewing gum compsn. contains CH_3COCHO (0. 1-2 wt. %); $HOCH_2CHO$ (0. 5-2 wt. %); and/or $HOCH_2CH(OH)CHO$ (0. 5-5 wt. %); or $CH_3CH(OH)CHO$ (0. 1-2 wt. %) as active component for dental care. 9. 1. 70 as 000851 (16pp047).

OREA D21 58787V/33 =DS 2405-216
Delayed action anti-perspirant prods - contg micro-crystalline aluminium oeriv. and starch cross-linked by etherification
L'OREAL SA 05.02.73-LU-066959
*A96 (A11) (10.05.79) *DT2405-216 A61k-07/38*

Powdery antiperspirant prepn. comprises a microcrystalline aluminium deriv. coated with a starch which is partially cross-linked by etherification, pref. using epichlorohydrin. The aluminium deriv. and starch are used in a wt. ratio of 1:10-1.

The prepn. is produced by forming a cold-water suspension of the starch and stirring at 80-90(85)°C until a liq. gel results. The antiperspirant aluminium deriv. is added to the gel either in crystalline or aq. soln. form, and the mixt. dried. 4. 2. 74 as 405216 (5pp913).

KAOS D21 74356Y/42 =DS 2710-468
Transparent aq. hair rinsing compsn. - contg. quat. ammonium salt, nonionic surfactant, polyoxyethylene alk(en)yl or alkyl-phenyl ether and solvent
KAO SOAP KK 29.03.76-JA-034764
*A96 E19 (A25) (10.05.79) *DT2710-468 A61k-07/08*

Transparent liquid hair rinse compsn. comprises (a) 0. 1-10, pref. 1-5 wt. % quat. ammonium salt(s) of formula $R_1R_2R_3R_4N^+X^-$ (where R_{1-4} are each alkyl, hydroxyalkyl or $PhCH_2$ such that 1-2 of these gps. denote 8-20C (hydroxy)-alkyl and the remainder are 1-3C (hydroxy)alkyl or $PhCH_2$; and X is a halide or 1-2C alkylsulphate anion); (b) 0. 1-10, pref. 1-5 wt. % nonionic surfactant of formula $R_5R_6CHO(CH_2CH_2O)_nH$ and/or 4-$R_7C_6H_4O(CH_2CH_2O)_nH$ (where R_5 is 7-10C alkyl or alkenyl; R_6 is H or 1-10C alk(en)yl, such that 7-19C are present between R_5 and R_6; R7 is 6-12C alkyl; and n = 1-7), (c) 5-30, pref. 10-20 wt. % solvent, such as a lower alkanol, polyol or glycol and (d) water. 10. 3. 77 as 710468 (6pp047).

FARH ★ D21 37255B/20 ★DT 2748-901
Preparing vinyl ester-crotonic acid copolymer - with multi-addn. of vinyl ester and removal of volatiles, used in hair cosmetics and as adhesives
HOECHST AG 02.11.77-DT-748901
A14 G03 (A81 A96) (10.05.79) C08f-218/04 C08f-220/04

A vinyl ester copolymer is prepd. by polymerising $\nless$1 vinyl ester (esp. acetate, propionate and/or butyrate, with crotonic acid, opt. in presence of a polyalkylene glycol, and in presence of a radical initiator and a regulator. In a first stage $\nless$ 70 wt % of the vinyl ester is copolymerised with all the crotonic acid and opt. all the polyalkylene glycol. Polymerisation is completed after addn. of the remaining vinyl ester and finally unconverted monomers and volatile impurities are removed by distn.

The copolymers are raw materials for adhesives and esp. for prepns. for hair treatment. A pure, odourless copolymer is obtd. The hair treatment prepns. do not cause irrirtation of the skin. 2.11.77 as 748901 (12pp510)

LUST/ ★ D21 37481B/20 ★EP ---1-744
Bite registration device for making occlusal impressions - comprises carrier film weakened so as not to stimulate proprioceptors
LUSTIG L P 07.10.77-US-840492
P32 (16.05.79) A61c-09
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Device comprises a carrier in film form capable of retaining on at least one of its surfaces a bite registration material. The carrier is weakened over a major part of its area, so that it lacks the ability to stimulate the propioceptors associated with the teeth of which an occlusal impression is to be taken.

Device is used for introducing bite material between the occlusal surfaces of teeth. Fine adjustments in bite registration can be made because the carrier exerts a minimal reactive force on the impression material in response to interdental pressure.
18.09.78 as 100914 (14pp67).
(E) ISR: US3604116; US2583170; US2895219; US3822473.

FARH D21 37255B/20 =EP ---1-810
Preparing vinyl ester-crotonic acid copolymer - with multi-addn. of vinyl ester and removal of volatiles, used in hair cosmetics and as adhesives
HOECHST AG 02.11.77-DT-748901
*A14 G03 (A81 A96) (16.05.79) *DT2748-901 C08f-218/04 +C08f-220/04*
D/S: E(BE, CH, DT, FR, GB, NL, SW).

A vinyl ester copolymer is prepd. by polymerising $\nless$ 1 vinyl ester (esp. acetate, propionate and/or butyrate)with crotonic acid, opt. in presence of a polyalkylene glycol, and in presence of a radical initiator and a regulator. In a first stage $\nless$ 70 wt.% of the vinyl ester is copolymerised with all the crotonic acid and opt. all the polyalkylene glycol. Polymerisn. is completed after addn. of the remaining vinyl ester, and finally unconverted monomers and volatile impurities are removed by distn.

The copolymers are raw materials for adhesives and esp. for prepns. for hair treatment. A pure, colourless copolymer is obtd. The hair treatment prepns. do not cause irritation of the skin.

27.10.78 as 101239.(12pp950).
(G) ISR DT1177825. 1 Journal Reference.

KELL/ D21 33440B/18 =EP ---1-860
Hair lotion and restorer - contg. oil of wine, e.g. in aq. alcohol
KELLERSCH J 03.11.77-DT-749166
*(16.05.79) *DS2749-166 A61k-07/06*
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Hair care compsn. contains, as active ingredient, wine lees oil or its essential components.

The compsn. is esp. used for promotion of hair growth and to stop hair falling out.

30.10.78 as 200271(5pp)
(G) ISR: DS-464745: CH-179254: 1 Journal Reference.

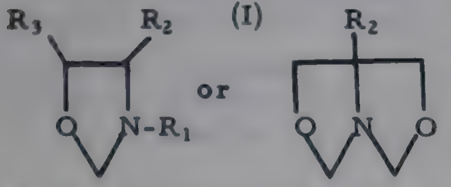
BUSL/ ★ D21 37567B/20 ★FR 2399-834
Skin lotion for treating acne - contains benzaldehyde, softening agent, sodium alginate and tri:ethanolamine
BUS L E 09.08.77-FR-025214 (22.03.75-FR-013738)
E14 (13.04.79) A61k-07/48

Skin treatment compsn. for use against acne contains benzaldehyde, softening agents, e.g. tincture of benzoin. Provins rose water and 90° ethyl alcohol. The compsn. pref. also contains sodium alginate and triethanolamine which homogenise the compsn. and help it permeate the skin.

Used partic. on the skin of young people. 9. 8. 77 as 025214 Add to 22. 3. 75 - 013738 (3pp903).

HENK D21 44096A/25 =GB 1545-740
Treating hair with specified oxazolidine cpds. - to improve hair structure after waving, bleaching, dyeing etc.
HENKEL KG AUF AKTIEN 20.12.76-DT-657715
*E13 (16.05.79) *BE-861-988 A61k-07/06 C07d-263/04*

A hair structure improving compsn. is prepd. contg. an acid-aq. soln. of $\geqslant$ 1 oxazolidine of general formulae (I) (where R_1 is H or 1-18C alkyl hydroxyalkyl or aminoalkyl. R_2 and R_3 are H, hydroxymethyl or 1-18C alkyl such that R_2 and R_3 are not both H).



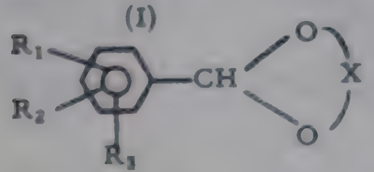
Pref. compsn. also includes strengthening and/or brightening agents stable at the pH level of the acid-aq-acoholic soln. pH is 2. 5-4. 0 oxazolidine is present to 2-7 wt. % w. r. t. total compsn. Compsn. is made up in aq. ethanolic or isopropanolic soln., acid adjusted by lactic, tartaric or citric acid.

Esp. used for improving the structure of hair damaged by waving, blond or dyeing processes. 15. 2. 77 as 052161 (6pp931)

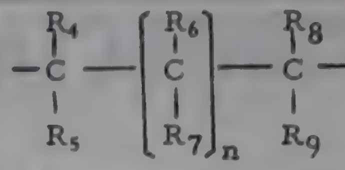
HENK D21 84977X/46 =GB 1545-954
Aromatic cyclic acetals used as antiinflammatories - in cosmetics, e.g. for protection against sunburn
HENKEL KG AUF AKTIEN 30.04.75-DT-519161
*E13 (16.05.79) *BE-841-271 A61k-07/42 A61k-31/33 +C07d-317/10 C07d-319/06 C07d-321/06 C07d-407/04*

A cosmetic prepn. is produced which comprises, as an inflammation inhibitor, a cyclic acetal of formula (I)

(I)



(in which R_{1-3} are each H, halogen, nitro, hydroxy or 1-4C alkyl or alkoxy, such that R_{1-3} are not a combination of H, hydroxy and alkoxy; two of the R radicals together may be methylenedioxy or together with the 6-membered ring, naphthyl; X is alkylene of formula (II);

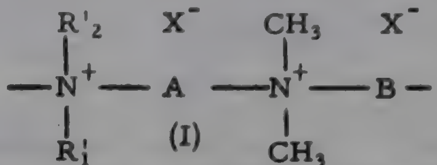


(II) (R_{4-9} are H, 1-6C alkyl, hy xyl, hydroxy-methyl or ph; n = 0, 1 or 2) The compsn. contains a carrier of diluen

The compsn. is used in a ts for protection against, and the treatment of sunburn 29.4. 76 as 017392 (11pp931)

OREA D21 05590Y/04 =GB 154
Cationic quat. polymers for use in hair treating compsns. - prep reacting an alkylene diamine with an ar)alkylene dihalide
L'OREAL SA 13.11.75-LU-073792 (04.07.75-LU-072901)
*A96 (16.05.79) *BE-843-728 A61k-07/06 C08g-73/02*

A polymer is prepd. contg. units of formula (I), where



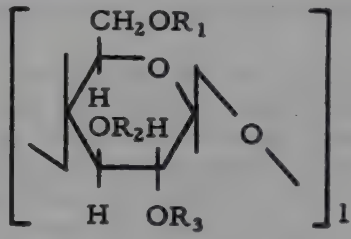
X^- are each an anion de ed from an organic acid each R'_2 is $<$20C alipha each R'_1 is a 2-20C aliph alicyclic or araliphatic, R'_1 and R'_2 attached to th same N may form a ring which can contain a second he -gram other than N.

Each A is $-(CH_2)_yCHE(CH_2)_xCHK(CH_2)_t-$, where x, y and t are each O or an integer 1-11 such that O $\leqslant$ (x+y+ $\leqslant$18, and E and K are H or $<$ 18C aliphatic. Each B is $-CH_2Ph(CH_2$-Co, m or p)), $-CH_2CHOHCH_2-$, $-(CH_2)_nO(C$ - or $-(CH_2)_vCHD(CH_2)_zCHG(CH_2)_u$, where D and G are or $\leqslant$18C aliphatic, and v, z and u are each 0 or an inte 1-11 such that $1 \leqslant (v + z + u) < 18$ and $\geqslant$1 if (x+y+t)=0 n i 2 or 3.

Polymers exhibit valueble cosmetic properties whe applied to the skin, esp. a softness to the touch. 2. 7. 7 as 027718 (16pp931)

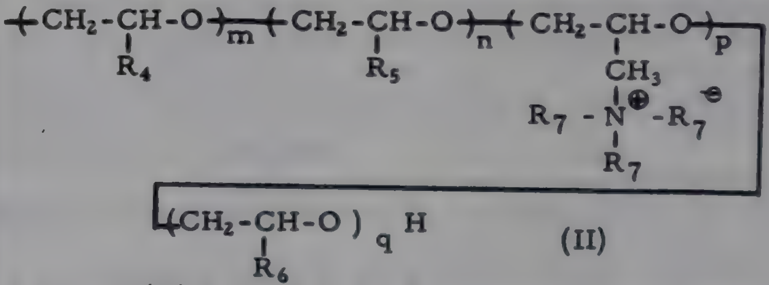
LIOY ★ D21 37650B/20 ★J5 4043-
Shampoo compsn. with improved foaming properties - co cationic cellulose ether and a nonionic polymer
LION FAT & OIL KK 12.09.77-JA-109575
A96 (A11) (05.04.79) A61k-07/06 C11d-03/60

Shampoo compsns. comprise (i) 0.05-5.0 wt. % of catio cellulose ether of formula (I)



(I)

where R_1, R_2 and R_3 ar or a gp. (II) where m, and q are 0-10, p is 0- each of R_4, R_5 and R_6 is or CH_3; R_7 is a halogen l is 100-20000 and average value of (m+n+q) pe unit glucose is 1-3 and average value of p is 0.



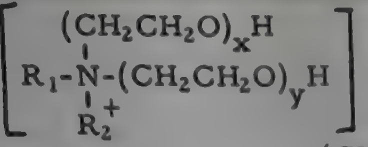
(II)

0. 5; and (ii) 0. 05-5. 0 wt. % of a nonionic polymer (methy cellulose, hydroxyethyl cellulose, ethyl cellolose, polyvinyl alcohol, polyethylene glycol, polyoxyethylene/polyo propylene copolymer, polyvinyl methyl ether, polyvinyl pyrrolidone, etc.).

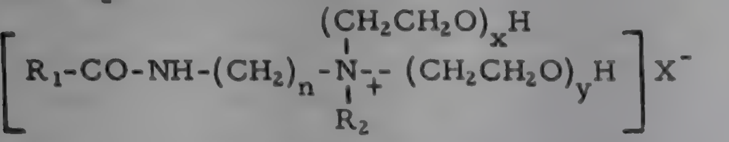
The coexistence of a cationic cellulose ether and a no ionic polymer contained in a conc. soln. of a surfactant acts synergetically on the marked foaming properties an retention of foams. 12. 9. 77 as 109575 (5pp59)

LIOY ★ D21 37651B/20 ★J5 4043-2
Shampoo with improved foaming properties - contg. catio surfactants and cationic cellulose ether
LION FAT & OIL KK 12.09.77-JA-109576
A96 E16 (A11 A25) (05.04.79) A61k-07/06 C11d-01/62 C1 03/37 C11d-10/02

Shampoo compsns. comprise (i) 0.05-5 wt. % of $\geqslant$1 catio ic surfactant of formula (1) or (2):

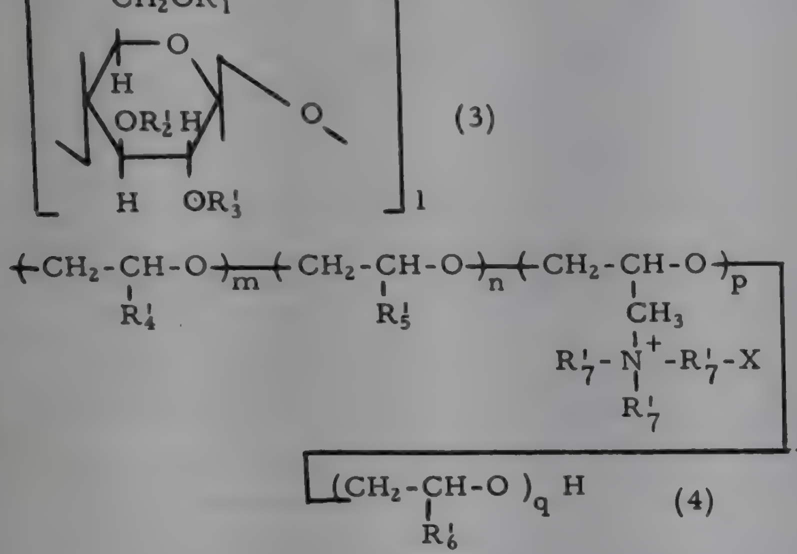


$$\left[R_1\text{-}\overset{\displaystyle (CH_2CH_2O)_xH}{\underset{\displaystyle R_2}{\overset{|}{\underset{|}{N^+}}}}\text{-}(CH_2CH_2O)_yH \right] X^- \quad (1)$$



$$\left[R_1\text{-}CO\text{-}NH\text{-}(CH_2)_n\text{-}\overset{\displaystyle (CH_2CH_2O)_xH}{\underset{\displaystyle R_2}{\overset{|}{\underset{|}{N^+}}}}\text{-}(CH_2CH_2O)_yH \right] X^- \quad (2)$$

where R_1 is alkyl with average 8-22C; R_2 is 1-4C alkyl or $-(CH_2CH_2O)_zH$; x, y and z are 1-100, n is 1-6 and X^- is an anion; and (ii) 0.05-5 wt.% of a cationic cellulose ether of formula (3) where R'_1, R'_2 and R'_3 are H or a radical of



(3)

(4)

formula (4), where m, n and q are 0-10, p is 0-3, each of R'_4, R'_5 and R'_6 is H or CH_3, R_7 is a halogen, l is 100-20000 and average value of (m+n+q) per unit glucose is 1-3 and average value of n is 0.2-0.5.

Use of a cationic cellulose ether with a cationic surface active agent added with EO contained in a concentrated soln of a surfactant acts synergetically on the foaming property and retention of foams. 12.9.77 as 109576 (5pp59)

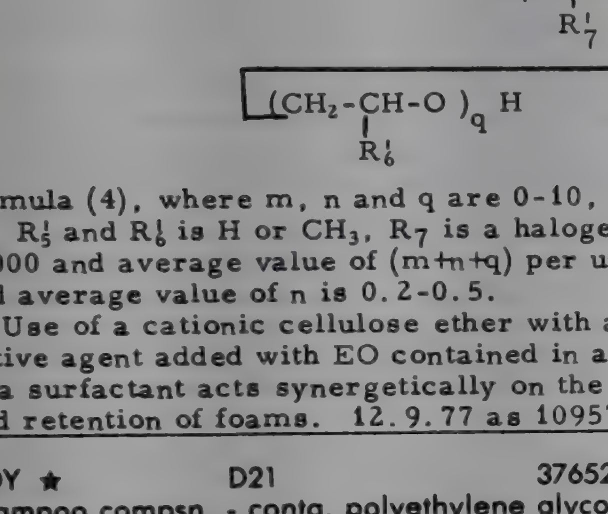
LIOY ★ D21 37652B/20 ★J5 4043-212

Shampoo compsn. - contg. polyethylene glycol di:stearate and/or di:palmitate, inorganic salts and suitable surfactants

LION FAT & OIL KK 12.09.77-JA-109578

A96 E12 (A25) (05.04.79) A61k-07/06 C11d-10/02

Shampoo compsns. comprise 0.1-2 wt.% of polyethyleneglycol distearate and/or -dipalmitate contg. at least 60 ethylene oxide units per mole, 0.5-5 wt.% of a water-soluble inorganic salt (e.g. sodium-, potassium- and magnesium-sulphates, -chlorides and nitrates, etc.) and opt. 2-20 wt.% of an amphoteric surface active agent (e.g. imid-azolines of



wherein R represents a 8-18C alkyl or alkenyl group, N-oleyl-N-(2-hydroxyethyl)-N'-carboxymethyl-ethylenediamine, N-lauroyl-N-(2-hydroxyethyl)-N'-carboxymethyl-ethylene diamine, N-lauroyl-N-(2-hydroxyethyl)-N',N'-biscarboxyethyl-ethylenediamine, long chained alkyl-β-imidodipropionate, N-(3-lauroylamidopropyl)-N,N-dimethyl-2-aminoacetate, etc.) solely or in combination with an anion surface active agent (e.g. alkali and triethanolamine salts of fatty acids derived from tallow oil and coconut oil, etc.), ethoxylated nonionic surface active agent (polyethoxylated higher lacohols, polyethoxylated sorbitan monopalmitate, etc.) and a quaternary-nitrogen-contg. polymer (quat. nitrogen-contg. cellulose ether, etc.)

The specified combination acts synergetically to increase the viscosity in an amount having no interference to the foaming property. 12.9.77 as 109578 (9pp59)

LIOY ★ D21 37653B/20 ★J5 4043-213

Shampoo compsn. - contg. certain amphoteric surfactants, give good washing properties without excessive removal of hair sebum

LION FAT & OIL KK 12.09.77-JA-109579

A96 E19 (05.04.79) A61k-07/06 C11d-10/02

Shampoo compsns. comprise 2-35 wt.% of ≥1 amphoteric surfactant of formulae $R_1\text{-}CO\text{-}N(CH_2CH_2OH)\text{-}CH_2CH_2NR_2R_3$ (I) where R_1 is alkyl alkenyl having on average 9-17C; R_2 is $-CH_2COOM$ or $-CH_2CH_2COOM$ and R_3 is H, $-CH_2COOM$ or -CH₂CH₂COO where M is a cation capable of forming a water-soluble salt; and $R_1\text{-}CO\text{-}NHCH_2CH_2N(R_4)(CH_2CH_2OR_3)$ (II), R_4 is $-CH_2COOM$ or $-CH_2CH_2COOM$ and 0.05-5 wt.% of a polymer contg. a quat. nitrogen atom (e.g. quat. N-contg. cellulose ether, etc.).

The compsns. may comprise 2-35 wt.% of a mixt. co prising 10-70 wt.% of the amphoteric surfactant(s) and 90-30 wt.% of (a) a Mg salt and/or Ca salt of $R'_4\text{-}(OCH_2CH_2)_nOSO_3^-$, $R'_4\text{-}SO_3^-$ or OS^- and/or a mixt. comp -ing 30-90 wt.% of an alkali salt and/or alkanol amine sa of $R'_4\text{-}(OCH_2CH_2)_nOSO_3^-$, $R_4'\text{-}SO_3^-$ or OS^- and 70-10 wt. $R_5\text{-}CON(CH_2CH_2OH)_2$ where R'_4 is an alkyl or alkenyl havi average of 8-18C or alkyl phenyl group having alkyl moi contg. average of 6-15C, n is 0-6, OS^- is an acidic gp. o an anionic surfactant prepd. by sulphonating an olefin an R_5 is an alkyl or alkenyl group having an average 9-17C and 0.05-5 wt.% of the polymer contg. a quat. nitrogen atom.

The shampoo compsns. have excellent washing proper for hair and the skin and prevent excess removal of the hair sebum. 12.9.77 as 109579 (6pp59)

YAMA ★ D21 37878B/20 ★J5 4044-0

Dental plaque prevention compsn. - contains sucrose fatty acid es as active ingredient

YAMANOUCHI PHARM KK 02.08.77-JA-092887

B03 E13 (07.04.79) A61k-07/16 A61k-31/72

Compsn. for preventing dental plaque contains a sucrose fatty acid ester as active ingredient. The compsn. inhib its adherence of bacteria to teeth.

The sucrose fatty acid esters is pref. a sucrose stea ate, sucrose oleate or sucrose palmitate. Pref. amt. o fatty acid moieties in the esters is ≥40%. The compsn. pref. is formulated into toothpaste, mouth-spraying liqs gargles, etc. together with conventional ingredients. 2.8.77 as 092887 (13pp16)

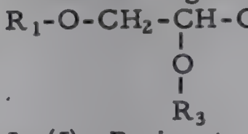
NIHS ★ D21 37879B/20 ★J5 4044-0

Cosmetic compsn. e.g. hair lotion, cream or face mask - cont alkylene oxide adduct of glyceryl ether fatty acid ester) surfactant

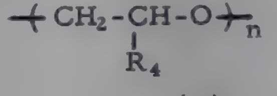
NIPPON SURFACTANT KK 12.09.77-JA-109699

A96 E17 (A25) (07.04.79) A61k-07

The cosmetics contain ≥1 alkylene oxide adduct (I) of glyceryl ether or of a glyceryl ether-fatty acid ester as essential ingredient.



$$R_1\text{-}O\text{-}CH_2\text{-}\underset{\displaystyle \overset{|}{\underset{|}{O}} \atop \displaystyle R_3}{CH}\text{-}CH_2\text{-}O\text{-}R_2 \quad (I)$$



$$\left(CH_2\text{-}\underset{\displaystyle R_4}{\underset{|}{CH}}\text{-}O \right)_n \quad (II)$$

In (I), R_1 is straight or branched> 8C alkyl or alkenyl gp. R_2 is straight or branched > 8C aryl gp. or the same gp. as R_3. R_3 is of formula (II), in which R_4 is H or CH_3 and is 1-100.

(I) are excellent surfactants and (1) are stable to acid, alkali, hydrolysis and pH and are highly preservative, (2) have a lower freezing point than conventional surfactants, such as glyceryl ether, POE-alkyl ether, etc., are convenient to handle and give cosmetics which are stable at low temp., (3) have excellent extending property, (4) dlso act as emollients, (5) give soft touch and can form a protective film on skin, (6) show excellent emulsifying ac ivity and a white fine emulsion can be obtd., (7) are safe and only slightly stimulative to skin and (8) increase the mutual solubility of cosmetic bases.

(I) are combined in an amt. of 1-1.5 w/w% in cosmeti such as hair lotion, hair tonic, lotion, cold cream, hand cream, face mask, etc. 12.9.77 as 109699 (4pp5)

MIMA- ★ D21 37880B/20 ★J5 4044-04

Stable skin cosmetic - prepd. by combining a di:glyceride and/o tri:glyceride contg. branched fatty acid residual gps. in specifie ratio

MIMATSU YUSHI KK 15.09.77-JA-110925

E17 (07.04.79) A61k-07

Cosmetics are prepd. by combining ≥1 of the diglyceride and/or the triglyceride which contains (a) the residual gp. of a branched fatty acid and (b) the residual gp. of ≥1 fatty acids other than the branched fatty acid in the ratio of (a):(b)=2:1, 1:1 or 1:2, in cosmetic base.

The diglyceride or the triglyceride is prepd., e.g. by mixing two or three fatty acids including branched fatty acid and glycerin in the prescribed ratio and esterifying the mixt. in the presence of absence of catalyst. Examples of the diglyceride and triglyceride are isostearo-stearin, isostearo-dipalmitin, isopalmito-isostearo-olein, isostearo-distearin, diisostearo-isopalmitin, isopalmito-diolein, etc.

The cosmetics not only show excellent effects on skin, but alos are stable. The triglyceride or the diglyceride has large molecular space and so stays in liquids, elastic solid or pasty state. It is easily extended on skin to form a protective film which does not inhibit cutaneous respiration and water permeation. It is also excellent in adhesive property to hair and shows excellent hair-setting property without showing corrosive property to celluloid. 15.4.77 as 110925 (5pp5)

MATW ★ D21 37881B/20 ★J5 4044-041

Hair treatment compsn. for curled hair - contains L-ethyl cystine and/or L-methyl cystine and/or their hydrochloride(s)

MATSUSHITA ELEC WORKS 12.09.77-JA-110344

E16 (07.04.79) A61k-07/11

Compsn. (I) for hair-treatment, contains ≥1 of L-ethyl cystine (II), L-methyl cystine (III) and hydrochlorides of (II) and (III).

Pref. amt. of (I) and/or (II) is 1-15 wt.%. The pH of (I) is pref. 6.9-9.5. Reagents for promotion of the reaction, such as urea, monoethanol amine, etc., surfactants and other additives may be added to (I).

(I) is used for curling hair. (I) maintain curls for a long period of time and the brightness and wiry-texture of hair are also maintained. 12.9.77 as 110344 (4pp42)

IGOH/ ★ D21 37882B/20 ★J5 4044-043

Compsn. for masking foul breath - contg. citrus fruit peel. sweetener, flavour and sodium bi:carbonate

IGO H 16.09.77-JA-110533

(07.04.79) A61k-07/16

Compsn. (I) for masking foul breath, is composed of peel of citrus fruit (II), sweetener (III), flavoring cpd. (IV) and sodium bicarbonate (V).

As (I) stimulate stomach and intestines comfortably, appetite increases. The effect for masking foul breath can be maintained for a long time. As (II), orange, lemon, grapefruit and other citrus fruits are used and lemon is the most pref. (III) are lactose, sucrose, maltose, glucose and sugar-alcohol and lactose is the most pref. As (IV), cassia and pepermint are suitable. The wt. ratios of (III)/(II), (IV)/(II) and (V)/(II) should be 1-5. 0.1-0.6 and 0.1-0.6, respectively. Usually (I) is used in powdery state and the amt. of (I) to be dosed at a time is 0.3-0.5g. 16.9.77 as 110533 (4pp42)

SAIT/ ★ D21 38016B/20 ★J5 4045-311

Toilet soap compsn. contg. milk protein - includes denatured casein and a salt of N-acyl-L glutamic acid to prevent putrefaction

SAITO S 17.09.77-JA-111256

E16 (10.04.79) C11d-09/40

A compsn. for the toilet soap contg. a milk protein contains a special denaturated casein and a salt of N-acyl-L-glutamic acid.

The putrefaction of milk protein is prevented without spoiling the washing effect of the original toilet soap by the synergetic effect of denaturated casein with N-acyl-L-glutaminate. A toilet soap compsn. having low irritating property, and agreeable feeling is provided. 17.9.77 as 111256 (3pp126)

MIRA- ★ D21 B/20 ★RU --63-509

Cosmetic compsn. for nails treatment - based on oils, vitamins, fatty alcohols and perfumes

MIRAJ INTR COSMET 27.06.75-RU-082679

(20.05.78) A61k-07/02

MIRA- ★ D21 B/20 ★RU --63-68

Nail conditioning cream - comprises collagen hydrolysate, lanoli lanolin ethoxylate, beeswax, borax, cetaceum and distilled water

MIRAJ INTR COSMET 27.06.75-RU-082686

(31.05.78) A61k-07/04

MIRA- ★ D21 B/20 ★RU --63-70

Cosmetic compsn. - based on oils, lipo-soluble Hippopha rhamnoides extract and perfumes

MIRAJ INTR COSMET 19.02.75-RU-081453

(31.05.78) A61k-07/02

OREA D21 15862A/09 =US 4152-11

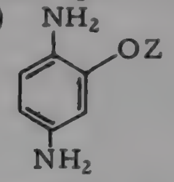
Substd. alkoxy para-phenylene di:amine - used as oxidn. bases i hair dyeing compsns.

L'OREAL SA 17.09.76-FR-027957

*E14 (01.05.79) *BE-857-616 A61k-07/13*

A dyeing compsn. for keratinic fibres and partic. for human hair contains, in aq. soln., ≥1 paraphenylenediamine cpd. of formula (I) (where Z is a hydroxyalkyl, alkoxyalkyl, acylaminoalkyl, mesylaminoalkyl, ureidoalkyl or aminoalkyl), opt. in the form of an acid salt, and, at the moment of application, ≥1 oxidising agent selec ted from H_2O_2, urea peroxide and the persalts. Pref. the compsn. contains 0.03-6 wt. % of ≥1 cpd. of formula (I) and has a pH of 8-11.5, the compsn. esp. also including ≥1 of an alkalising agent ≥1 direct dye and ≥1 coupler.

(I)



Sombre colouration can be imparted, and with preferred couplers very bright, purple-blue shades having a sufficient chromaticity and a very good stability to light and inclement weather may be imparted. 20.9.76 as 724581 (12pp990)

SPIT/ D21 23320A/13 =US 4152-416

Antiperspirant aerosol compsn. contg. synthetic polymer gum - enabling high astringent concn. and low spray prodn.

SPITZER J G 17.09.76-US-724426

*A96 E19 (E32 E33) (01.05.79) *BE-858-829 A61k-07/32 +A61k-09/14*

Aerosol antiperspirant compsn. giving low mustiness and dustiness on dispersing comprises 3-30% antiperspirant salt, 15-95% liquefied propellant, 0.1-5% bulking agent and 0.05-5 wt.% of a synthetic polymer gum of viscosity 500,000-10 millian cSt at 25°C, being dissolved in the liq. phase, to inhibit mustiness and dustiness.

The gum may be a silicone, an acrylic polymer, or a hydrocarbon polymer. 17.9.76 as 724426 (9pp963)

COLG D21 19577A/10 =US 4152-417

Alumina-contg. dentifrice compatible with aluminium containers - contg. alkali silicate and calcium carbonate as stabilisers

COLGATE PALMOLIVE CO 02.10.75-US-618855 (13.06.73-US-369730)

*E37 +Q34 (01.05.79) *US4075-317 A61k-07/16 B65d-81/26 B65d-85/14*

Dental cream which is compatible with unlined Al containers comprises a dental cream vehicle contg. 35-65 wt.% of abrasive and 0.05-0.25 wt.% of dissolved or dispersed alkali metal silicate or fumed silica. The abrasive comprises a major amt. of alumina and a minor amt. of $CaCO_3$, the amt. of $CaCO_3$ being ≥ 1 wt.% of the total dental cream.

The vehicle pref. comprises 20-25 wt.% of a humectant 0.5-5 wt.% of a gum and water. The $CaCO_3$ and silicate or fumed silica stabilise the dental cream against unlined Al container corrosion caused by the presence of the alumina. The Parent Patent claimed a similar dental cream further contg. a monofluorophosphate and a tripolyphosphate. 15.8.77 as 824995 Div. ex. 4075317 (+29.4.74-US-464898)(5pp927)

UNIL D21 38400A/21 =US 4152-418

Anti-plaque and anti-calculus tooth paste compsn. - contg. zinc ions and hydrolytic enzyme

LEVER BROTHERS CO 29.10.76-US-737260 (01.04.70-US-024882)

*B05 (01.05.79) *US4082-841 A61k-07/28*

Fluoride-free mouthwash for reducing dental plaque and calculus consists of (a) 0.01-5% non-enzyme bound, pharmaceutically acceptable acetate, benzoate, borate, carbonate citrate, dl-lactate cate, 8-18C alkenoate, salicylate, stannate, sulphate or itanate of Zn.

Mouthwash also contains (b) 0.0001-5% enzyme prepn. selected from protease, carbohydrase, lipase or their mixts., (c) 0-50% non-aq. ethanol, propylene glycol, 1,3-butylene glycol or their mixts., (d) 0-2% surfactants and suspending agents and (e) balance water.

Parent patent describes a toothpaste contg. (a) and (b). 1.12.77 as 856469 Div. ex. 4082841 (+1.4.70, 30.12.71, 20.11.72, 17.6.74, 10.10.75, 29.10.76-US-024882, 214497, 308079, 479914, 621331, 737260)(11pp393)

COLG D21 68966A/39 =US 4152-419
Dentifrice compsn. contg. mono:fluorophosphate and fluoride - using as polishing agent, mainly alkali metal metaphosphate
COLGATE PALMOLIVE CO 25.05.77-US-800267
*B06 E34 (01.05.79) *BE-867-224 A61k-07/18*

$CaCO_3$-free dental cream comprises a polishing material consisting of a water-insoluble phosphate salt, at least a major part of which is insoluble Na metaphosphate in a vehicle contg. an alkali metal monofluorophosphate (I) and an alkali metal fluoride (II) to give a total fluoride content 0.01-1.5 wt.%, the wt. ratio of fluoride from (I) to that from (II) being 10:1 to 1:10, pref. 3-1:1. Polishing material is pref. present in amt. of 20-75 wt.% and comprises Na metaphosphate and small amt. dicalcium phosphate.

The compsn. gives better retention of the monofluorophosphate as fluoride. 25.5.77 as 800267 (5pp963)

COLG ★ D21 38891B/20 ★US 4152-420
Oral anti-calculus compsn. - contg. water soluble sulphonated acrylic oligomer salt
COLGATE PALMOLIVE CO 28.07.78-US-928922 (30.12.76-US-755895)
A96 B05 E12 (01.05.79) A61k-07/16

Oral compsn. comprises in a vehicle, ≥ 1 water-solubl oligomer of formula $MO_3S[CHR_1.CXR_2]_a[CR_3H.CYR_4]$ H (I) as anticalculus agent. In (I) M is orally acceptable solubilising cation; R_{1-4} are each H or (m)ethyl. Y is ≥ of $COOM_1$, $CONH_2$ or CH_2OH and Y is ≥ 1 CN, $COOR_5OR$ CONHR, $COONHR_5COR$ or OOCR; M_1 = M or H; R = 1-8C alkyl; R_5 = 1-4C alkylene; a = 0-7 and a + b = 4-15.

Pref. (I) is 0.01-10 wt.% of the compsn. which may b a mouthwash (aq. alcoholic vehicle) or toothpaste (gelled liq. vehicle) pref. of pH 4.5-9. (I) inhibit conversion of amorphous Ca phosphate to crystalline hydroxyapatite an do not appreciably stain the teeth. 28.7.78 as 928922 C.i.p. 4110429 (6pp1251)

KAOS D21 29075A/16 =US 4152-42
Foaming agent for tooth-pastes - which does not alter the taste o foods is (a mixt. of) alkyl phosphate ester salts
KAO SOAP KK 12.10.76-JA-122178
*E11 (01.05.79) *DT2744-980 A61k-07/16*

Dentifrice compsn. is claimed where active foaming compoent consists of (1) a monoalkyl phosphate ester salt $R-OOP(OX_2)(OX_1)$ where R is 10-14C alk(en)yl, X_1 is alkal metal or alkanolamine and X_2 is H or as X_1; and (2) a diall yl phosphate ester salt $(RO)_2POOX_1$, where wt. ratio of (1 to (2) is 100:0 to 70:30 (100:0 to 85:15).

Pref. dentifrice contains 0.2-5 wt.% of (1) + (2). Pref X_1 is Na or K and X_2 is H in (1). R is pref. 12-14C gp. Compsn. does not have after effects on taste of food and drinks. 30.9.77 as 838559 (5pp963)

See Also

D13 DS 2343196
D23 DT 2749794
D18 EP ---1887
D25 US 4152272
D23 DS 2513996

D22 : BANDAGES ; DRESSINGS

STIL ★ D22 37291B/20 ★DT 2749-448
Cleaning combined with disinfection - in four chambers with disinfectant added to cleansing agent
STIERLEN-MAQUET AG 04.11.77-DT-749448
P28 P43 (10.05.79) A47l-15 B08b-03/08

In a system for the cleaning and disinfection of articles, a conveyor takes the articles through a rinsing chamber where a cleansing liquor is sprayed over them. This liquor, pref. of alkaline compsn. receives an additive of a disinfectant which releases chlorine.

This combines the cleaning with the disinfection operation with a min. of appts. and attendance. The thorough cleaning does not affect the reliable disinfection. 4.11.77 749448 (94pp39)

GALE- ★ D22 37477B/20 ★DT 2848-724
Disinfectant and sterilising compsns. esp. for iron surfaces - contain glutaraldehyde and divalent and/or trivalent metal ions in aq. soln.
GALEN LTD 31.05.78-GB-046548 (09.11.77-GB-046548)
A97 E17 P34 (E12) (10.05.79) A61l-13

Disinfectant and sterilising compsns. contain 0.005-10 wt % glutaraldehyde, (I) and divalent and/or trivalent metal ions, in addn. to water opt. mixed with a lower monohydric alcohol, and pref. have pH ≤ 7. A disinfectant and sterilising compsn. is also claimed contg. (I) a hydroxycarboxylic acid sulphate or sulphonate as corrosion inhibitor, and water opt. mixed with a monohydric alcohol.

The compsns. are used for disinfecting and sterilising metal articles, esp. of Fe. The (I) contg. compsns. have bactericidal, fungicidal viricidal and sporicidal properties. 9.11.78 as 848724 (+17.11.77, 7.1.78-GB-047786, 000599) (23pp200)

HENK D22 29896B/16 =EP ---1-746
Sanitary tampon - with hydrophilic admixture band to increase suction capacity
HENKEL KG AUF AKTIEN 03.10.77-DT-744466
*A96 F07 P32 (16.05.79) *DT2744-466 A61f-13/20*
D/S: E(BE, CH, FR, GB, NL, SW).

A sanitary tampon, made of cotton- or rayon-type of wadding, is treated in a certain zone by a hydrophilic admixture of increased absorption capacity. In the finished rolled tampon, the treated zone can lie in the centre or at either of the ends.

The tampon has, in addn. to its normal absorption capacity, a suction reserve in case of a sudden fluid efflux. 22.9.78 as 100958 (12pp39).
(G) ISR: CH565553; DS827838; GB527827; DT2424439; US3055369; DS1079796; DT1642146; FR1480224.

FISO ★ D22 37529B/20 ★EP ---1-888
Sterilising soln. contg. physiologically acceptable salt and alcohol - esp. sodium chloride and ethanol and pref. protein denaturant, useful for sterilising contact lenses
FISONS CORP 31.10.77-US-847089
P34 (16.05.79) A61l-01 A61l-13
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

An aq. sterilising soln. comprises as active agents ≮ 5 wt.% physiologically acceptable salt, pref. NaCl, and a physiologically acceptable alcohol, esp. EtOH. Compsn. pref. comprises 5-33 (20-30)wt.% NaCl and 5-70 (10-20) vol.% EtOH. Compsn. pref. also contains a water-soluble, physiologically acceptable, protein-denaturing agent, esp. urea present at 2.9-8M.

Useful for sterilising medical appts., flexible or hard contact lenses, etc. Compsn. is safe and effective in relatively short periods of time (e.g. overnight or ≤ 4 hrs.), the components acting synergistically against bacteria and fungi

10.10.78 as 300478 (28pp949).
(E) ISR: US3873696; FR2226677.

MONS ★ D22 37537B/20 ★EP ---1-909
1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - by one-step dehydrohalogenation-rearrangement hydrogenation of 1,1-bis-(4-hydroxy-aryl)-2-halo ethane cpds.
MONSANTO CO 31.10.77-US-846754
A41 E14 H06 (A60 H07) (16.05.79) C07c-37 C07c-39/16 C07c-43/30 C07c-67/08 C07c-69/16
D/S: E(BE, DT, FR, GB, NL).

The one-step dehydrohalogenation-rearrangement-hydrogenation of 1,1-bis(4-hydroxyaryl)-2-haloethanes (I) to corresp. 1,2-bis(4-hydroxyaryl)ethanes (II) comprises contacting (I) in aliphatic carboxylic acid solvent contg. a carboxylic acid salt with gaseous H_2 and a hydrogenation catalyst. Solvent is pref. anhydrous and is esp. a 2-6C acid, partic. acetic acid. Pref. salts are alkali metal salts, partic. Na acetate. The salt may be formed in situ, e.g. by addn. of alkali hydroxide to the acid.

The prods. (II), e.g. bisphenol E, are used in prodn. of polycarbonates, polyesters etc. Process is more convenient and less time-consuming than prior art dehydrohalo genation-rearrangement using strong base followed by hydrogenation.

(II) are also useful as bactericides, chemical intermedmediates, monomers, antioxidants. They are used to stabilise e.g. animal and vegetable fats and oils, gasoline, lubricants, polyolefins, rubber etc.

27.10.78 as 300559 (31pp949)
(E) ISR: US3624162.

JOHJ D22 64734X/34 =GB 1545-795
Highly conformable adhesive bandage backing - comprising natural rubber and a synthetic elastomeric modifying agent
JOHNSON & JOHNSON 06.03.75-US-556029
*A96 G03 P34 +P32 P73 (A18 A25) (16.05.79) *US3973-563 +B32b-03/12 B32b-25 C09j-07/02*

A pressure sensitive adhesive bandage is prepd. having a backing in the form of a foam, and comprises ⩾45 wt.% natural rubber or synthetic C is 1,4- polyisoprene and ⩾10 wt.% synthetic polymeric modifying agent. Modifying agent is styrene-butadiene rubber, poly-urethane, plasticised PVC, neoprene rubber, ethylene-vinyl chloride copolymer and their mixts. Pref. the backing has a tensile strength of 75-500 p.s.i., an elongation at break of 10-500%, and a thickness of 5-27 mils.

The bandage has relatively high moisture vapour transmission rate to permit perpiration and other skin fluids to transmit through to reduce maceration of the underlying skin. 5.3.76 as 008912 (9pp931)

BOYD/ D22 88495X/47 #GB 1545-974
Support structure for an orthopedic cast etc. - is pliable during installation and becomes rigid subsequently in situ
BOYDEN J S 26.09.74-US-509452 (03.11.76-GB-045813)
*A96 F07 P32 +P21 P34 P73 (16.05.79) *US3990-437 B29c-25 D01f-08*

A flexible element is made of an elongated cylindrical, pliable outer body of high molecular wt. organic compsn.; and a pliable polymerisable organic material enclosing a longitudinal passage in the outer body. The organic material becomes rigid when exposed to wave energy of sufficient intensity to effect polymerisation. Before polymerisation of the material the element is flexible, and after, rigid.

Pref. the organic material is polymerised by light energy, e g. UV. The element can be used as an orthopaedic cast. 3.11.76 as 045813 (7pp1376)

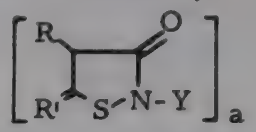
COLG D22 70502X/38 =GB 1546-113
Disposable nappy comprises absorbant pad attached to porous support - which is covered with impermeable film
COLGATE PALMOLIVE CO 28.04.75-FR-013253
*F07 P21 +P32 (16.05.79) *BE-841-238 A41b-13/02 +A61f-13/16*

A disposable diaper includes an absorbant pad having a porous non-absorbant cover sheet folded over the longitudinal edges of the pad. The sheet is coated with an impermeable material in the region corresp. to the pad; the coating may be facing of remote from the pad.

The diaper is folded into a box-pleated configurati
The pad pref. consists of a porous non-absorbant bag
ed with absorbant material, e.g. cellulosic material.
restricting the impermeable layer, prod. is cheaper
more rapid. 28.4.76 as 17271 (4pp1379)

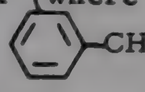
TSUB ★ D22 37871B/20 ★J5 404
Fungicidal and algicidal compsn. e.g. for water systems - cor isothiazolone complex and acetic acid deriv.
KUMIAI CHEM IND KK 13.09.77-JA-110232
A60 C01 E12 (D15) (07.04.79) A01n-09/02

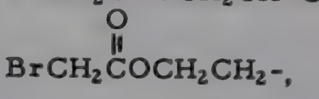
The compsn. contains ⩾1 complex of isothiazolone of
-ula (I):-



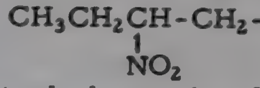
(MXn) (I)

(where Y is H, alkyl, alkenyl, alkynyl or aralkyl; R is
halogen or alkyl; R' is H or halogen; R and R' in comb
ation may form a benzene ring; M is alkali metal, alka
earth metal, heavy metal or amine; X is anion to form
together with cation M having solubility sufficient to fo
complex; a is 1 or 2; n is an integer to fill the atomic
ency of anion X or cation M) and ⩾1 acetic acid deriv.
formula (II):- A-O-C(=O)CH_2X (where X is halogen; A
$BrCH_2COOCH_2CH=CHCH_2$-,





$BrCH_2\overset{O}{\overset{\|}{C}}OCH_2CH_2$-,



$CH_3CH_2\underset{NO_2}{\underset{|}{C}H}-CH_2$- or $HOCH_2CH_2CH_2$-

The compsn. controls bacteria, fungi yeast and alga
which grow in industrial water systems, industrial coo
water, in aquatic paint, polymer latex, on pulp, on pas
on leather and metal machining oil. The compsn. has
excellent effect at low concns. at which either compone
alone has no effect. The compsn. controls the propaga
of Aerobacter, Bacillus, Flavobacterium, Fungi, Rhod
torula, etc. Generally used in the form of wettable powder, or emulsion. 13.9.77 as 110232 (13pp108)

ESPE D22 49199T/31 =J7 9009-
Liquid for dental silicate cement - contg polymer of an uns dicarboxylic acid
ESPE FAB PHARM PRAPARATE 15.01.71-DT-101889
*A96 (23.04.79) *DT2101-889 A61k-05/06 C04b-19 C08k-03/ C08l-33/02*

Liq. for prepn. of a dental silicate cement, consisting o
an aq. soln. of an acid with usual additives is improved
the addn. of 20-65 wt. % of a polymer derived from an un
satd. α,β-dicarboxylic acid, pref. contg. 4-5C atoms (e
polymaleic acid). In contrast to known preparations, the
tooth core is not attacked. The hardness of the filling is
good. 12.1.72 as 005315 (clg. 15.1.71-DT-101889) C04b-
19/00, A61k-5/06, C08k-3/40, C08l-33/02 (23.4.79)
ESPE FABRIK PHARMAZEUTISCHER PRAPARATE GM
(4pp) (J4 7042830)

MOEN= ★ D22 38284B/20 ★SU -613-8
Compsn. for fireproofing and bio-protecting wood - comprises substd. ammonium phosphate, sodium fluoride, sodium hydroxid higher fatty acid vat residues and water
MOSC ENG CONS INST 07.10.76-SU-410664
C03 E34 F09 P63 (E35) (27.05.78) B27k-03/52

Compsn. for providing wood with fire and biological protection comprises (by wt. %): 2-3% NaF; 15-16% di-substd ammonium phosphate; 0.4-0.6% NaOH (I); 0.4-0.5% higher fatty acid vat residues (II); and 81.1-82.2% water. Inclusion of (I) and (II) improves the bio-protective props and reduces the tendency of the compsn. to wash out.

Sosin S.L., Pokrovskaya E.N., Nikiforova T.P. et al.
Bul. 25/5.7.78,7.10.76 as 410664 (2pp314)

TEXT- ★ D22 B/20 ★SW 7710-7
Oxidised cellulose or its salts for sanitary purposes - prepd. b oxidation by nitric acid with sodium nitrite catalyst, followed b dehydration, impregnation and irradiation
STATNI VU TEXTILNI 26.09.77-SW-010740
A11 (A96) (30.04.79) C08b-15/02

Cellulose from wood or from cotton is treated in an oxidation bath that contains nitric acid. The oxidation reacti catalysed by passivated sodium nitrite. This treatment sts 20-30 hrs.

The oxidised cellulose is stabilised and/or converted to its calcium, sodium or ammonium salt. Then it is ehydrated and impregnated. Finally it is irradiated with a ose of up to 10^5 joule/kg. 26. 9. 77 as 010740 (-pp1407)

See Also

D15 J5 4042298

D23: OILS; FATS; WAXES

NIL ★ D23 37159B/20 ★BE -871-930

argarine fat based on eighteen carbon fatty acids - contg. ardened and unhardened fats partly transesterified

UNILEVER NV 10.11.77-GB-046842

(D13) (10.05.79) A23d

he fat has a difference in expansions at 15°C and 25°C of $\geqslant$100 and an expansion at 35°C of $\leqslant$100 max. It is substantially free of fats other than those contg. $\geqslant$80% 18C atty acid radicals. The fats are partly hardened and the on-hardened fats are partly transesterified with the hardened fats which contain $\leqslant$55% trans acids. The non-transesterified fats contain non-hardened fats such that the hardened fats have a 50-70% trans content.

Compared with the fats described in GB 1121662 the above contains less transesterified fats, which contain less trans acids, without adversing affecting the fusion properties or quality of the margarine produced from the fat. 10. 11. 78 as 871930 (9pp597)

WIER- ★ D23 B/20 ★BR 7806-667

Enzymatic hydrolysis of fatty acid esters - using lipase from candida cylindracea

WIERNER LAB SAIC 10.10.77-AR-269522

(D16) (02.05.79) C11c-01/04 9. 10. 78 as 006667

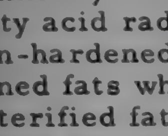
FIRM ★ D23 37233B/20 ★CH -610-580

Isomerisation of conjugated olefin partic. terpene deriv. - giving high proportion of trans isomer, used in perfumery

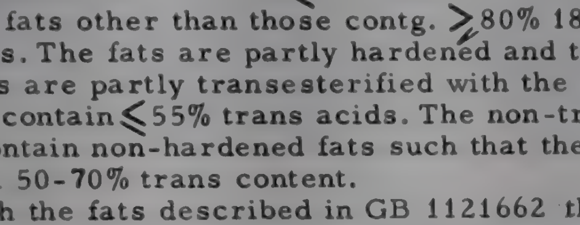
FIRMENICH SA 11.05.76-CH-005887

E17 (E13) (30.04.79) C07c-05/30 C07c-33/02 C07c-69/14 C07d-303/04

In a process for isomerisation of conjugated olefins, a cpd. of formula (I) (where R is $CH_2-CH=C(CH_3)_2$,



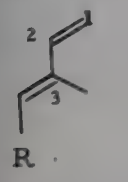
(I)



$$CH_3-CH-C(CH_3)_2 \text{ (epoxide O)}, \quad CH_2-\underset{OH}{CH}-\underset{CH_3}{C}=CH_2,$$

$$CH_2-\underset{OCOCH_3}{CH}-\overset{CH_3}{C}=CH_2, \quad CH_2-CH_2-\underset{OH}{C}(CH_3)_2)$$

is irradiated, in the presence of a catalyst, partic. diphenyl sulphide, which can supply thiyl radicals, in suitable reaction conditions to give a cpd. of formula (II):-



(II)

The formation of thiyl radicals takes place partic. by means of irradiation from a Hg vapour lamp. The reaction is carried out pref. in an inert organic solvent at 0-25 °C.

(II) are useful partic. in the perfumery industry. The cpds. of formulae (I) and (II) are e.g. cis-ocimene and trans-ocimene respecitively, or cis-epoxy-(6, 7)-ocimene and trans-epoxy-(6, 7)-ocimene respectively. 11.5.76 as 005887 (3pp1319)

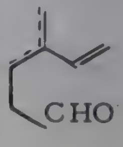
GIVA D23 44193S/26 =DS 1768-793

Terpene derivs prepn intermediates for - sinensal cpds

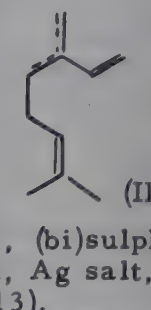
GIVAUDAN L & CIE SA 01.11.67-CH-015391 (07.07.67-CH-009749)

*E17 (10.05.79) *GB1237-923 C07c-45/04 C07c-47/20*

Unsatd. aldehydes (I) (where the broken lines represent a double bond from the C4 atom) are prepd. by ozonising cpd (II) with not more than a molar amt. of ozone at below room temp., followed by treatment with a mild reducing agent. (I) are used to prepare tetraene aldehydes.



(I)



(II)

Ozonisation of the triene (II) is effected with high selectivity in a dil. soln. of the triene (e.g. 5-20%) using an O_2 stream contg. 2-10% O_3. Good yields are obtd. at reaction temps. of -50 to -90° C. Suitable reductants are e.g. alkali iodides, (bi)sulphides, SO_2, HCHO, sulphides, Zn or Mg in acid, Ag salt, Raney-nickel etc. 1. 7. 68 as 768793 (6pp913).

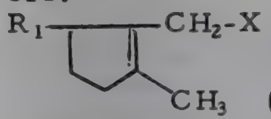
BADI D23 76050X/41 =DS 2513-996

Alkali-stable cyclopentene deriv. perfumes - comprising aldehydes, acetals, alcohols and ester derivs., pref. for cosmetics, soap, detergents

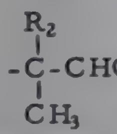
BASF AG 29.03.75-DT-513996

*E15 (D21 D25) (10.05.79) *DT2513-996 A61k-07 C07c-43/30 C07c-47/38 C07d-325 C11d-03/50 C11d-09/44*

Cyclopentene derivs. (I) [where X is (II); R_1 is isoprop(en)-yl; and R_2 is 1-3C alkyl] and their dialkyls and 1,2- and 1,3-alkylene acetals of 2-6C, are new and stable perfumes and aromatisers used in cosmetics, soaps and cleansers.



(I)



$$-\overset{R_2}{\underset{CH_3}{C}}-CHO$$

(II)

(I) can be prepd. from cpds. (I; X is Cl or Br) and aldehyde H- (II) base in the presence of a catalytic amt. of an quat. ammonium salt (e.g. 0.001-0.1, pref. 0.01-0.05 mol. per mole (II)) and an aq. soln. of a strong base. Typical salts used are tetraethyl ammonium chloride, and tetrabutylammonium bromide or iodide. 29. 3. 75 as 513996 (4pp913).

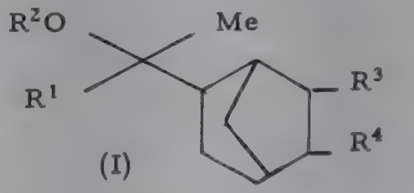
BADI ★ D23 37326B/20 ★DT 2749-794

Bi:cycloheptane deriv. used in perfumery - prepd. by hydroformylating bi:cycloheptenyl methyl carbinol deriv. of a Diels-Alder adduct and organo-metallic cpd.

BASF AG 07.11.77-DT-749794

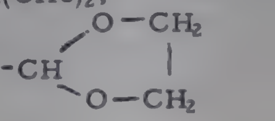
E15 (D21 D25) (10.05.79) A61k-07/46 C07c-43/30 C07c-47/28 C07c-69/14

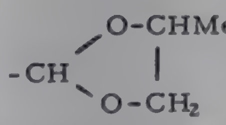
New bicyclo /2,2,1/-heptane derivs. have formula (I)



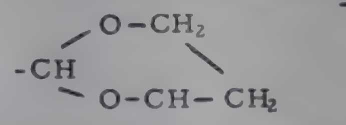
(I)

(where R^1 is H, Me or Et, R^2 is H, Me, Et, -CO-Me or -CO-Et, and 1 or R^3 o R^4 is H while the other is -CHO, -CH(OHe)$_2$, -CH(OEt)$_2$,





or



(I) are used as perfumes and compsns. e.g. soaps, detergents, bath additives and cosmetics, and also for improving the smell of industrial prods e.g. glues, soap powders and paints. (I) may also be used as substitutes for known perfumes having a flowery fragrance, derived from natural materials, e.g. citronellal myrcene or β-pinene. (I) have bloomy fragrances having green, mint-like, earthyl herbal, spicy waxy shades. 7. 11. 77 as 749794 (17pp200)

ALFA ★ D23 37619B/20 ★GB 2007-205

Processing of palm fruit extn. effluent - by fermentation with thermophilic or thermo tolerant bacteria, to degrade pectin

ALFA-LAVAL AB 22.08.78-GB-034203 (24.08.77-GB-035583)

C03 (D13) (16.05.79) C02b-01/14

Liq. effluent formed in the extn. of oil from fruit is treated by fermentation under thermophilic or thermo-tolerant anaerobic conditions to degrade the pectin (I) content. Simple degradation of (I) allows the effluent to be readily sepd. into oil, H_2O, and sludge. In addn., contamination due to unwanted feral microflora is reduced.

Fermentation is pref. at ca 55°. After the fermentation, the mixt. is pref. de-emulsified at a higher temp. than the fermentation temp., pref. 60-85°. Sepn. of the 3 phases may be effected using a 3-phase may be effected using a 3-phase decanter, or a sedimentation tank etc. The produced sludge fraction may be recycled to the anae--robic fermentation, or used as a cattle feed, etc. 22. 8.78 as 034263 (6pp478)

SHIS ★ D23 37883B/20 ★J5 4044-044

Purificn. of perfume compsns. - by counter-current contact with gas in a stripping tower

SHISEIDO KK (KURS) 13.09.77-JA-110301

(07.04.79) C11b-09/02

A continuous method for modification of perfume (I), comprises contacting (I) with a gas (II) in counter-current in a stripping tower (III).

Perfumes are classified into natural and synthetic perfumes. Natural perfumes are prepd. by pressing raw mat-erails, steam-distn. and/or extn. with organic solvents, and therefore have bad-smelling components originated in the compounds formed in these treatments. Synthetic perfumes have also bad-smelling components originated in raw materials. By the present process these bad-smelling components are removed.

As (II), nitrogen, air, CO_2 and helium are used and (II) should be dried as possible. The temp. of the stripping of the present method should be <150°C. As (III), packing tower, perforated plate tower, wet-wall tower and others are used. 13. 9. 77 as 110301 (6pp42)

SAGA ★ D23 37927B/20 ★J5 4044-605

Methanol prepn. from carbon mon:oxide and hydrogen - using catalyst comprising supported platinum clusters and metal oxide(s)

SAGAMI CHEM RES CENTRE 12.09.77-JA-108802

B05 E15 (09.04.79) B01j-23/56 B01j-31/20 C07c-31/04

Prepn. of methanol comprises reacting carbon oxide with H_2-contg. gas in the presence of a Pt-carrying catalyst consisting of platinum cluster and ≥ 1 metal oxides from those of groups IIa, IIb, IIIa and IVa.

By employing a catalyst carrying platinum cluster, methanol can be selectively (70-99% selectivity) prepd. even at a reduced or atmospheric pressure. By selecting the catalyst, a small amount of ethanol (less than several %) can also be prepd. by a by-product. The activity of the catalyst for preparing methanol is not reduced even by continuous reaction for a long period of time. Leakage of the platinum is not observed either. 12. 9. 77 as 108802 (-pp75)

ALFA ★ D23 B/20 ★PT --68-350

Continuous process for extraction of oil from fruit paste - after removal of leaves, stones, etc.

ALFA-LAVAL SPA 17.10.77-IT-028678 (19.08.77-IT-026812)

*(27.04.79) C11c-00/** 26. 7. 78 as 068350

USDA ★ D23 38825B/20 ★US 4152-27

Wax esters of vegetable oil fatty acids - useful as lubricants, esp. fo continuous casting of steel, and their sulphurised derivs. useful a extreme pressure and antiwear additives

US SEC OF AGRICULTURE 19.05.78-US-907473

H07 M22 (01.05.79) C08h-03 C10m-01/26

A lubricant compsn. comprises a mixt. of cpds. of formula $R-CO-OCH_2R'$ (I)where R and R' are each independentl (a) $CH_3(CH_2)_xCH=CH(CH_2)_yCH=CH(CH_2)_z-$ (where x is 1-4, y is 1-4, z is 7-8 and $x + y + z = 12$), (b) $CH_3(CH_2)_xCH=CH(CH_2)_y-$ (where x is 0-9, y is 5-14 and $x + y = 14$), (c) $CH_2=CH(CH_2)_{15}-$, (d) $CH_3(CH_2)_{16}-$, and (e) $CH_3(CH_2)_{14}-$, such that the mixt. contains a trace to 50 mol.% radical (a), 35-80 mol.% radicals (b) + (c), 3-20 mol.% (d), and 5-15 mol.% (e) and also contains a trace to 60 mol.% of isolated trans double bonds, 0-16 mol.% conjugatable double bonds and from a trace to 45 mol.% of nonconjugatable double bonds.

Also claimed is an EP and antiwear additive comprisin the reaction product of (I)with elemental sulphur. (I) is prepd. from a fatty acid mixt. (II) obtd. from hydrogenate and saponified soybean or linseed triglyceride oils.

(I) is esp. useful as lubricant in the continuous casting of steel. 19. 5. 78 as 907473 (9pp909)

RHON ★ D23 38933B/20 ★US 4152-530

Allylic alcohol prepn. from allylic halide(s) - with recycling of alkali metal carboxylic acid salt; useful as perfumery ingredients and flavourants

RHONE-POULENC INC 24.07.78-US-927330

E17 (D13) (01.05.79) C07c-29 C07c-33/02

Cyclic process for prepg. allylic alcohols (I) from allylic halides (II) $R_1R_2C=C(R_3)CHR_4X$, and alkali metal carboxylate salts (III) (without isolation of the inter. allylic ester, and with regeneration and recycling of anhydrous (III) is as follows: (a) the halide (II) in an H_2O-insol. ketone (which forms an azeotrope with H_2O) is esterified at 50-150° with (III) in the presence of a basic N-contg. catalyst to afford an ester (IV) (of (II) and the acid of (III)), and an alkali metal halide; (b) H_2O is added to dissolve the alkali metal halide, whichis discarded; (c) enough alkali metal hydroxide is added to hydrolyse (IV), and the mixt. of aq. and organic phases is heated at 50-150° to afford (I); (d) (I) is distd. from the sepd. organic phase; (e) ketone is added to the sepd. aq. phase and H_2O is removed azeotropically to give a slurry of anhydrous (III) in the ketone which is recycled. In the formula, X = Cl, Br, I; R_1-R_4 = H or alkyl, provided one of R_1R_2 has 1-20C, remaining R_1-R_4 have 1-5C.

Economical process does not use expensive drying steps or appts., and recycles the (expensive) salt (III). In addn., the process can be carried out in one reaction vessel. (I) (including terpenes) are useful as perfumery ingredients and flavours. 24. 7. 78 as 927330 (6pp478)

See Also

D13 J7 9009164

D24: SOAP; SOAP DETERGENTS

WISE/ D24 06561Y/04 =GB 1545-948

Solid soap prepn.

WISER J A (WEIS/) 19.01.76-US-650254 (22.05.75-US-579810)

*(16.05.79) *J51143-008 +C11d-09/04 C11d-17*

Soap cake is prepd. contg. a generally oblong bar having 2 portions, joined only along a continuous, planar interface through or parrallel to the 2 longest axes of the bar.

one portion comprises $>$ one-half of the vol. of the bar, contg. a non-abrasive soap compsn. The other portion consists of an abrasive compsn. Pref. non-abrasive portion comprises 0.5-0.75 vol. of bar. Abrasive portion cont-ains pumice, pumicite, talc, silica, china, clay, bentonite, diatomaceous earth, whiting or feldspar. Compsn. is easily handled, and has ready access to either the toilet soap or pumice portions without the necessity to use both. 21. 5. 76 as 021004 (4pp931)

D25 : OTHER DETERGENTS

IL ★ D25 37143B/20 ★BE -871-861
aline particulate detergent compsns. for washing clothes etc. -
ntg. partly neutralised alkali metal orthophosphate plus
bonate
UNILEVER NV 10.11.77-GB-046841
A97 (08.05.79) C11d
e compsn. is prepd. from 15-50% of a partially neu-
alised alkali metal orthophosphate, 20-50% of an alkali
etal carbonate and 5-40% of a synthetic detergent sur-
ctant based on the total wt. of the compsn.
 The compsn. is used for washing clothes etc. It is effec-
ve, esp. in hard water, whilst avoiding the use of poly-
osphates. The use of the partially neutralised alkali
etal orthophosphate avoids high alkalinity in use and as
result do not give effluent which forms a ecological
enace. 8.11.78 as 871861 (18pp597)

ENK D25 38235S/22 =DS 1959-652
scous acid detergents for glass ceramic - surfaces, contg no added
ickeness
HENKEL KG AUF AKTIEN 28.11.69-DT-959652
*E36 (E14) (10.05.79) *BE-759-467 +C11d-03/06*
leansing agent for hard surfaces contains H_3PO_4 (7.5-55,
p. 15-40 wt. %); ionic and nonionic surfactants (3-10 wt.
) such as (8-16C alkyl)benzene-sulphonic acids or their
kali salts, and addition prods. of ethylene oxide (9-11
oles), with 8-20C alkanols or (6-15C alkyl)phenols (1
ole); a crystalline Fe(II) salt (2-25, pref. 5-20 wt. %);
d Na_2SO_3 (0.05-2, pref. 0.1-0.5 wt. %). 28.11.69 as
59652 (4pp047).

ADI D25 64085W/39 =DS 2410-824
ashing polyester textiles printed with dispersion dyes - using aq.
ln. contg. surfactant, polyvinyl pyrrolidone and amine mixt.
BASF AG 07.03.74-DT-410824
*A97 E19 (A14 A23 A25) (10.05.79) *DT2410-824 C11d-03/37*
urfactant mixt. for use with printed polyester textiles
omprises a mixt. of (a) alcohols or sulphates of formula
$_1(OCH_2CH_2)_nR_2$ (50-95%) (where R_1 is 8-20C alkyl or (6-
2C alkyl)phenyl; n is 2-20; and R_2 is OH or SO_4), (b) poly-
-vinylpyrrolidone (0.5-5%), having pK 20-100; and (c)
mines of formula $R_3R_4R_4N$ (49.5-1%) (where R_{3-5} are
ach 1-6C hydroxyalkyl or R_3 and/or R_4 are H).
 These compsns. are used in aq. soln., (0.1-5g/dm^3),
sp. for washing polyester textiles after printing with dis-
ersion dyes. 7.3.74 as 410824 (3pp047).

ADI D25 58723A/33 =DS 2705-561
se of di:ester of di:carboxylic acid with higher alcohol - as
ntifoaming agents in acid cationic cleaning products
BASF AG 10.02.77-DT-705561
*E17 (10.05.79) *BE-863-544 C11d-03/20*
eutral esters of 4-10C dicarboxylic acids and 10-15C
lkanols are used as foam inhibitors in acidic cationic
leansing compsns. The pref. proportions of such esters
n these cleansing agents is 0.2-5, esp. 0.5-3 wt. %.
0.2.77 as 705561 (3pp047).

ROC ★ D25 37510B/20 ★EP ---1-853
etergent compsn. contg. crystalline aluminosilicate builder - with
ood activity, esp. on oxidisable-type stains
PROCTER & GAMBLE CO 07.11.77-GB-046307
E33 (D16) (16.05.79) C07f-09/38 C11d-03/06
/S: E(BE, DT, FR, GB, NL).

detergent compsn. comprises 2-75% surfactant (I), 5-
0% of water-insoluble crystalline aluminosilicate ion
xchanger (II), 0.01-4 wt.% polyphosphonic acid (or salt)
III) and a pH buffer giving pH 7.0-9.5 for 1% aq. soln. of
he compsn. (I) may be anionic, nonionic, zwitterionic,
mphoteric or a mixt. of these. (II) is of formula
$M_z(AlO_2)_z(SiO_2)_yXH_2O$ (where M is a Ca-exchange cation;
 and y are integers $\nless$ 6; molar ratio z:y is 1:0.5; X
s 15-264). (II) has particle dia. 0.1-10 μ and ion ex-
hange capacity of $\nless$ 200 mg equiv. of $CaCO_3$ per g.
 Compsn. has excellent all-round detergency perform-
nce and partic. good performance on oxidisable stains in the absence of 'per-bleach' agents. Compsn. pH is suitable for use with enzyme additives unlike conventional 'per-bleach' materials.

23.10.78 as 200259 (33pp949).
(E) ISR: DT2559631; OE338947; DT2531342; DT2412837; OE338948.

PROC D25 09278Y/06 =GB 1545-801
Spray-dried, whitening washing powder compsn. - contg. detergent, aluminosilicate, pyrophosphate and/or orthophosphate and alkali silicate
PROCTER & GAMBLE CO 23.07.75-US-598292
*A97 (16.05.79) *BE-844-492 C11d-01 C11d-03/06 +C11d-10/02*

A spray-dried granular detergent prod. comprises (a) 1-40 wt.% of an organic detergent component chosen from anionic, nonionic, zwitterionic, and ampholytic detergents and their mixts. ; (b) 3-25 wt.% of a water insoluble cryst-alline aluminosilicate ion exchange material formula $Na_{12}(AlO_2.SiO_2)_{12}.xH_2O$ in which x is 20-30; (c) 5-35 wt.% of a builder chosen from alkali metal pyrophosphates and orthophosphates and their mixts., (d) 5-25 wt.% of an alkali metal silicate having the ratio $SiO_2:M_2O$ of 2.0:1-4.0:1 in which M is an alkali metal .

The prod. has a total free moisture content of 3.5-7 wt. % of the compsn. 22.7.76 as 030606 (16pp910)

ALBR D25 33801A/19 =GB 1545-810
Stable detergent powder prodn. - by adding a conc. gel-forming aq. alkoxylated alcohol soln. to the other spray-dried components
ALBRIGHT & WILSON LTD 02.11.76-GB-045509
*E17 (16.05.79) *DT2748-854 C11d-11/02*

Solid powder detergent includes an alkoxylated 10-18C alcohol or mixt. the chain length of the alkoxy being 6-12 molecules. The detergent is mfd. by producing a spray-dried mixt of the (principal) constituents other than the alkoxylated alcohol(s), and mixing with the spray-dried mixt. an aq. soln. of the alcohol(s) of such concn. that it is pumpable, but which, when the residual water in the spray-dried mixt. is added to it, forms a gel. 13.1.78 (3pp910)

HENK D25 09398Y/06 =GB 1545-910
Washing compsn. contg. two cpds. as antifoaming agent - specified monoester of diol and hydroxy (N)-alkyl fatty acid amide
HENKEL KG AUF AKTIEN 08.08.75-DT-535518
*E19 (16.05.79) *BE-844-955 C11d-03/60*

Low-foaming washing compsn. comprises $\geqslant$1 surface-active washing cpd., $\geqslant$1 inorganic and/or organic builder and/or organic builder and $\geqslant$0.2wt.% of a mixt. of (A)$\geqslant$1 monoester of a satd. fatty acid having 18-26C with an alkane diol having 16-20C and (B) $\geqslant$1 carboxylic acid amine of formula $R_1(OH)_m-CO-NH-R_2(OH)_n$, the wt. ratio of (A):(B) being 5:1-1:5. In the formula, R_1 and R_2 are each satd., linear or branched 10-26C aliphatic hydrocarbon gps.; m and n are each 0.1 or 2 and (m+n) is 1-4.

Pref. (A) is 1,12-dihydroxyoctadecylmonobehenate and (B) comprises 12-hydroxystearic acid-N-tallow alkylamide and/or 9,10-dihydroxystearic acid-N-tallow alkylamide. Compsn. is suitable for use in hard and soft water over the whole range of laundering temps. 6.8.76 as 032768 (7pp927)

SHEL D25 36629A/21 =GB 1546-127
High viscosity detergent compsn. with low clearing point - comprising low crystalline fraction, secondary alkyl sulphate and an alpha-olefin sulphate
SHELL INT RES MIJ BV 18.11.76-GB-048118 (17.07.75-GB-030037)
*E17 (16.05.79) *BE-860-893 C11d-01/37*

A detergent compsn. is prepd. contg. 5-95wt.% of a low crystalline fraction sec. alkyl sulphate derived from 10-18C olefins, and 95-5 wt.% 10-17C alpha-olefin sulphonate.

Pref. the sulphate is derived from 13-16C olefins present to 80-20wt.%, sulphonate is a 14C and/or 16C alpha-olefin sulphonate. Opt. a 10-20C alcohol ethoxy sulphate is present. Water is present such that compsn. contains

-60% active water.

Compsns. may be used as liq. detergents or in the
rm of powders produced by spray drying aq. solns. or
spersions of compsn. 16. 11. 76 Div. ex 1538747 (5pp)

ROC D25 09279Y/06 =GB 1546-139

oloured granules for speckling washing powders - contg.
ydratable inorganic salt, colourant and anionic surfactant

PROCTER & GAMBLE CO 06.10.75-US-619756 (23.07.75-US-598523)

*E24 (16.05.79) *BE-844-493 C11d-03/04 +C11d-01/02 C11d-10/02*

granular coloured speckle is prepd. in agglomerate
rom comprising 60-94.9 wt.% of a granular, water-solu-
le hydratable, inorganic alkaline salt having had sprayed
.1-100wt.% of colouring agent and 5-35wt% aq. anionic
ufactant paste.

Anionic surfactant is an alkali metal salt associated
vith ≥3 times its wt. of water. Pref. alkaline salt is a
odium tripolyphate, sodium pyrophosphate, sodium carb-
onate, anhydrous borax of their mixts. Colouring agent is
htalocyanine blue, phthalocyanine green, ultramarine
lue, Polar Brilliant Blue GAW 180%, Polar brilliant
Blue RAW, Rhondamine BM, Pontacyl Light yellow 36 and
heir mixts.

Speckles are used in detergent compsn., providing a
distinctive and readily recognisable appearance to the
compsn. colour is non-staining to the fabrics in use.
22.7.76 as 030607 (6pp931)

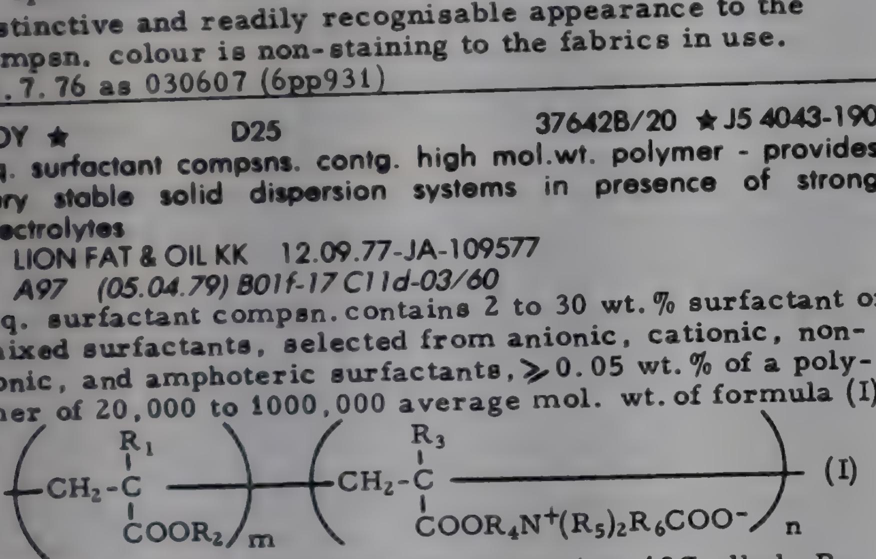
LIOY ★ D25 37642B/20 ★J5 4043-190

Aq. surfactant compsns. contg. high mol.wt. polymer - provides very stable solid dispersion systems in presence of strong electrolytes

LION FAT & OIL KK 12.09.77-JA-109577

A97 (05.04.79) B01f-17 C11d-03/60

Aq. surfactant compsn. contains 2 to 30 wt.% surfactant or
mixed surfactants, selected from anionic, cationic, non-
ionic, and amphoteric surfactants, ≥0.05 wt.% of a poly-
mer of 20,000 to 1000,000 average mol. wt. of formula (I)



$$\left(-CH_2-\overset{\overset{R_1}{|}}{\underset{\underset{COOR_2}{|}}{C}}-\right)_m\left(-CH_2-\overset{\overset{R_3}{|}}{\underset{\underset{COOR_4N^+(R_5)_2R_6COO^-}{|}}{C}}-\right)_n \quad (I)$$

(where R_2 and R_3 are H or CH_3, R_2 is 1 to 18C alkyl, R_4 and R_6 are 1 to 4C alkylene, R_5 is H, CH_3, or C_2H_5, and m/n are in the mole ratio 1/9 to 8/2), and 0.01 to 10 wt.% of a fine granular solid substance, e.g. fungicide, pigment, emulsifier, pearl brightener, etc.

The compsn. provides very stable solid dispersion systems even in the presence of strong electrolytes, i.e. no floatation, precipitation, coagulation, segregation, etc. of solid particles. The compsn. is useful in a multipurpose cleaner, and other dispersion systems. 12.9.77 as 109577 (7pp117)

MEIK- ★ D25 37803B/20 ★J5 4043-904

Surfactant-impregnated paper used e.g. as a soap - is prepd. by immersing water-soluble paper in a soln. comprising surfactant and methanol, and drying the paper

MEIKO KK 14.09.77-JA-110857

(06.04.79) C11d-13

The paper soap is produced by coating a soln. comprising 20-50 wt.% of a surfactant, e.g. alkylallylsulphonate and alkylbenzenesulphonate, etc. and 80-50 wt.% of MeOH on a water-soluble paper, followed by drying with hot air or in an oven. The coating of the soln. is pref. carried-out by a roller coater.

Dissolution or damage of the water-soluble paper due to immersing it in the surfactant soln., does not occur because the water-soluble paper is coated with the MeOH soln. of the surfactant, contng. no water. The MeOH soln is prepd. of comparative low concn. having excellent permeability and fluidity, even the surfactant is in paste-like or in solid state, thereby it is not generated any difference in the concn. distribution of the detergent between the surface and the inside of the water-soluble paper. 14.9.77 as 110857 (2pp34)

MITK ★ D25 38128B/20 ★J5 4045-698

Easily dispersible alumina hydrate mfr. - by hydrolysis of an alkyl aluminium cpd. by contact with steam in gas phase

MITSUI TOATSU CHEM INC 17.09.77-JA-111240

A60 E33 G01 (11.04.79) C01f-07/36

Mfr. of alumina hydrate by hydrolysing alkyl Al cpd., comprises contacting vapour of alkyl Al cpd. with steam in gas phase at 100-500°C. The alumina hydrate has an excellent dispersability and its mean particle size is 100 A. This alumina hydrate may be used for material of alumina sol, filler for plastics, extender for various detergents.

In an example, to raw material tank 100 g. of triethyl aluminium was placed and N_2 was passed at the rate of 1.6 l/min. through introduction pipe and the raw material tank was heated to 130°C. Alternatively, to water tank 200 g. of distilled water was placed and heated to 60°C. Nitrogen gas is passed at the rate of 6 l/min. through introduction pipe. Vapour of triethyl aluminium from raw material tank and steam from water tank were contacted at the reactor and hydrolysed, and thus alumina hydrate was formed. 17.9.77 as 111240 (6pp96)

FARB D25 65752U/44 =J7 9009-593

Phosphonic acid derivs - of polycarboxlyc acids for use as complex-formers for polyvalent metal ions

BAYER AG (HENK) 13.04.72-DT-217692

*C04 E11 M11 (D15) (25.04.79) *DT2217-692 C09k-03 C11b-03/36*

Complex-formers for polyvalent, esp. di- or trivalent metal ions consist of cpds. having the general formula $H-CH(COOH)-CH(COOH)-X-PO_3H_2$ (I) (where X is $-CH(COOH)$ $-CH_2$, $-CR(COOH)-$ or $-CR(PO_3H_2)-$ and R is H or Me) or opt. their water-sol. salts.

(I) may be used in sub-stoichiometric amts. w.r.t. metal ions and resist hydrolysis. They are pref. used for bonding salt causing water-hardness, e.g. in cooling water systems, also for descaling dabrics, cleaning metal or glass, esp. bottle-rinsing, preventing decomposition of per-cpds. fats or soaps in presence of Cu ions, as dye-bath additives, for supplying trace elements to plants replacing cyanides in electroplating baths, and as builders for detergent and cleaning compsns. 13.4.73 as 041496 (clg. 13.4.72-DT-217692) C09k-3/00, C11d-3/36 (25.4.79) BAYER AG (6pp) (J4 9017386)

DETE- ★ D25 B/20 ★RU -63-637

Linear 12-18C cyano-ethyl ether prepn. - by reacting fatty alcohol with acrylonitrile in basic medium and in presence of ferrous sulphate hepta-hydrate polymerisation inhibitor

INTR DETERGENTI 21.03.74-RU-078122

E16 (08.06.78) C07c-41 C07c-43

DERO- ★ D25 B/20 ★RU --65-760

Fragile fabrics cleaning compsn. - comprising sodium alkyl-aryl-sulphonate, polyethoxylated phenols, fatty acid, EDTA and perfumes

DERO INTR 07.04.72-RU-070452

A97 E19 (30.09.78) C11d-01

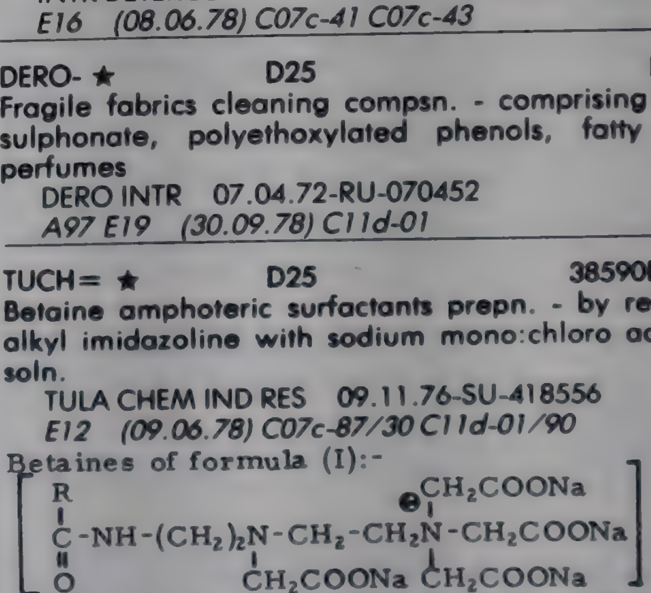
TUCH= ★ D25 38590B/20 ★SU -615-062

Betaine amphoteric surfactants prepn. - by reacting aminoethyl-alkyl imidazoline with sodium mono:chloro acetate in aq. alkali soln.

TULA CHEM IND RES 09.11.76-SU-418556

E12 (09.06.78) C07c-87/30 C11d-01/90

Betaines of formula (I):-



$$\left[\underset{\underset{O}{\|}}{\overset{\overset{R}{|}}{C}}-NH-(CH_2)_2\underset{\underset{CH_2COONa}{|}}{N}-CH_2-CH_2\underset{\underset{CH_2COONa}{|}}{\overset{\overset{CH_2COONa}{|}}{\overset{\oplus}{N}}}-CH_2COONa\right] Cl^- \quad (I)$$

(where R is C_nH_{2n+1} and n is 9-13). These cpds. are amphoteric surfactants, useful as active agents in the mfr of foam-forming washing compsn., eg. shampoo. They have high activity and are described as new.

Cpds. (I) are prepd. by the alkylation of 1-amino-ethyl-2-alkyl-2-imidazoline (II) with sodium monochloro-acetate (III) at 92-96°C in aq. alkali soln. (IV) (pH 8-9) using reagent ratio 1:4:3. In an example, 76.0 g. (II), 247 ml. 44% aq. (III) and (IV) were reacted to give 514 g. soln. contg. (I) in quantitave yield.

Kolomiets, B.S., Kuryaninova, L.P., Suchkov, V.V. et: al. Bul. 26/15.4.78. 9.11.76 as 418556 (4pp938)

PROC D25 33745A/19 =US 4152-272

Perfumed fabric conditioner contg. carrier and perfume particles - worked into mixt., e.g. an aq. dispersion, contg. cationic surfactant with affinity to fabrics

PROCTER & GAMBLE CO 29.10.76-GB-045078

*A97 E19 F06 (D21) (01.05.79) *DT2747-726 D06m-13/46*

Perfumed fabric conditioning, esp. rinse-softening compsn. in the form of an aq. dispersion consists of (a) 0.1-10% of a fabric-substantive cationic surfactant and (b) 0.1-20% of particles of average size 0.1-200 µm and m.pt. 38-150°C and comprising 25-95 wt.% carrier and 1-75 wt.% perfume.

The carrier is pref. macro- or micro-crystalline hydrocarbon wax, ester wax of saponification value ≯ 100, hydrogenated fat, fatty acid or fatty acid ester. A pref. surfactant is a non-cyclic quat. ammonium salt having 2 12.22 alkyl chains and 2 1-4C alkyl chains.

The perfume is more effectively applied to fabrics. 25.10.77 as 845090 (8pp984)

SAFE- ★ D25 38840B/20 ★US 4152-305

Non-toxic general purpose liq. cleaning compsn. - contains nonionic surfactant, isopropanol, citric acid, sodium tetra:borate and sodium hydroxide

SAFE-TECH INC 20.06.74-US-481173

E17 (E34) (01.05.79) C11d-03/04 C11d-17/08

Liq. detergent compsn. comprises (by wt.) 3-10 (4.3-8.7) % nonionic surfactant (I); 1-3 (1.1-2.2)% isopropanol (II); 0.78-3 (0.78-1.6)% anhydrous citric acid (III); 0.5-1.6 (0.54-1.1)% Na tetraborate (IV); 0.2-1.2 (0.37-0.9)% anhydrous NaOH; opt. 0-0.13% anhydrous NH_4OH, and the balance water. The compsn. has pH ⩽ 9.5; is nontoxic when ingested and does not irritate the skin or eyes.

Used as general-purpose household cleaners which are non-toxic, non-corrosive, biodegradable and phosphate-free. They can be used on e.g. woodwork, carpets, cars, etc. without damage to the surfaces being cleaned. 20.6.74 as 481173 (4pp1251)

UNIL ★ D25 38926B/20 ★US 4152-51

Alpha alkoxy or alkylthio-hydroxy-succinic acid salts - useful a biodegradable detergent builders

LEVER BROTHERS CO 13.04.77-US-787193 (23.11.70-US-092170)

E19 (01.05.79) C07c-59/23 C07c-149/20 C07d-295/18

Dicarboxylic acid salts of formula R-Z-CH(COOM)-CHX.COOM (I) are new. In (I), R is 10-22C alkyl; M is alkali metal, NH_4 morpholinium, alkylammonium, mono-, di- or tri-alkanolammonium or NMe_4; Z is O, S, SO or SO_2 and X is OH. (I) are prepd. by reacting ROH or RSH wit an epoxysuccinate ester, then saponifying and opt. oxidising S to SO or SO_2.

(I) are useful as precipitant builders for detergents. They are biodegradable and since they contain no N or P they do not contribute to eutrophication. The ppte. they form with Ca salts does not form a heavy scum and even softens clothes. 13.4.77 as 787193 (+6.4.73; 19.4.76-US-348567; 648094)(7pp1251)

CHEM- ★ D25 B/20 ★ZA 7802-342

Cleaning compsn. - contg. high boiling mineral hydrocarbon(s) an nonionic surfactant contg. ethylene oxide or propylene oxide gps.

CHEMED CORP 28.04.78-ZA-002342

A97 (15.03.79) C11d-01

The compsn. consists of 25-98% of high boiling mineral hydrocarbons, 1-60% of a non-ionic surfactant contg. 20-60% of residues of ethylene oxide or propylene oxide or both 0.5-15% an oil soluble alkanolamide emulsifier an an alkenyldialkylamine oxide of formula R'_2, R'' N=O (where groups R' are each of formula C_nH_{2n+1} wherein n is 1 to 18 and R'' is alkenyl of formula C_nH_{2n-1}, wherein n is 1 to 18, and opt. contains up to 73% of pine oil and up to 25% of other constituents. 28.6.78. as 002342 (13pp)

See Also

D13 DS 2343196 D23 DS 2513996 D23 DT 2749794

CPI INDEXES

ALERTING PATENTEE INDEX (II)

Weekly by section and overall, lists all current patents in patentee code order and, within a given patentee, in earliest priority date order. The first line gives patentee code, earliest priority date, patentee name, CPI classes and finally the current patent number. The second line gives the first part of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

CPI CLASS INDEX (IV)

Weekly only. Headings are all the CPI classes within the section to which an Alerting Bulletin relates, arranged in numerical order. Posted under each class heading is a list, in country then patent number order, of all basic or equivalent documents referenced or cross-referenced under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

BASIC NUMBER INDEX (V)

Weekly by section and overall, lists all entries by accession number. Each heading consists of the accession number in bold, followed by the CPI section letters. There then follows a list of all the family members, commencing with the basic and finishing with the current week's patent. For each family member the CPI week of issue is quoted, and a plus sign indicates that a multiple priority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                                49862X/26  *US 3963-654
  CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H0
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                           49433X/26  *DT 2554-327
  CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                                48076X/26  *CA -990-668
  CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX 1

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS disting accepted West German specifications (DAS) fror unexamined applications (OLS) which are given the n DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined o present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

ABBO 19.10.77 ABBOTT LABORATORIES A60 C02 D22 E13 =GB 2007-209
Bactericidal and fungicidal 2-methyl-1-naphthyl maleimide - 19938B/10

*ABME= 01.08.76 AS BELO METABOLISM C04 D13 (C03) *SU -614-100
High yield mono:acyl urea prepn. - 38372B/20

ACCL- 03.10.75 ACCLES & SHELVOKE D12 =CH -610-186
Bolt gun for animal slaughtering - 27512Y/16

AGEN 30.12.76 AGENCY OF IND SCI TECH D16 J04 =J7 9009-077
Determining biodegradability of a substance - 62492A/35

*AGEN 14.09.77 AGENCY OF IND SCI TECH A35 D16 (A13) *J5 4044-087
Styrene oligomer decomposition - 37889B/20

*AGEN 14.09.77 AGENCY OF IND SCI TECH D15 *J5 4044-350
Anaerobic digestion of organic wastes - 37899B/20

AGRO- 04.12.73 AGROTECHNIKA NP D15 =DS 2456-953
Biological purification of highly polluted liquids - 27495W/17

AJIN 29.03.74 SANRAKU OCEAN B02 D16 =US 4152-209
Purine nucleoside-5-phosphate-2 or 3 -mono or di-phosphates - 69160W/42

AJIN 10.08.77 AJINOMOTO KK B02 C02 D16 =FR 2400-033
Purine arabinoside(s) enzymatic prodn. - 16275B/09

*AJIN 13.09.77 AJINOMOTO KK B05 D16 E16 *J5 4044-096
L-Arginine fermentative prodn. - 37893B/20

*AJIN 14.09.77 AJINOMOTO KK D13 (D17) *J5 4044-057
Starch additive useful as taste controlling agent for seasoning - 37885B/20

ALBR 02.11.76 ALBRIGHT & WILSON LTD D25 E17 =GB 1545-810
Stable detergent powder prodn. - 33801A/19

*ALFA 19.08.77 ALFA-LAVAL SPA D23 *PT --68-350
Continuous process for extraction of oil from fruit paste - B/20

*ALFA 24.08.77 ALFA-LAVAL AB C03 D23 (D13) *GB 2007-205
Processing of palm fruit extn. effluent - 37619B/20

*ALIB= 29.03.76 AS LITH BIOCHEM B04 D16 *SU -614-113
Intracellular bacterial aminopeptidase sepn. - 38385B/20

*ALTH- 08.11.78 ATSA ALTHOUSE TER A60 D18 E21 F06 *BE -871-849
Dyeing wool and leather in solid, marine blue shades - 37141B/20

AMHP 22.08.77 AMERICAN HOME PROD CORP D13 =J5 4045-310
Edible, sprayable, lecithin vegetable oil compsn. - 15979B/09

*AMMA 14.01.78 AMF INC D18 *BE -873-442
Reconstituted tobacco from suspension of tobacco powder in adhesive - 37210B/20

*ANTI- 20.04.72 INTR ANTIBIOTICE B03 D16 *RU --64-992
Biosynthesis of erythromycin - B/20

*ANTI- 06.06.72 INTR ANTIBIOTICE B05 D16 *RU --65-020
5-Hydroxy-tetracycline biosynthesis - B/20

ANVR 03.03.70 AGENCE NAT VALORISATION D15 H04 =DS 2110-205
Removal of oil from industrial waste waters - 17710S/10

ANVR 19.11.71 AGENCE NAT VALORISATION B04 D16 =US 4152-423
Water-soluble immunological adjuvant - 32540U/23

*APAR- 30.10.71 MINI APARARII NATI D15 *RU --63-120
Electromagnetic processing installation for boiler feed water - B/20

ARAI/ 12.09.77 ARAI T B04 D16 =J5 4044-098
Antibacterial and antitumour saframycin(s) A, B, C, D and E - 22518B/12

ARMO 01.10.65 ARMOUR CO D12 =DS 1692-573
Self basting poultry products - 15301S/08

*ASAH 16.09.77 ASAHI CHEMICAL IND KK D15 *J5 4045-962
Waste water treatment - 38144B/20

*ASAN 14.09.77 ASANO KOJI KK D15 *J5 4044-356
Denitrification of treated human waste liquor - 37902B/20

*ASBI= 30.12.76 AS USSR BIOCHEM PHY D16 E13 *SU -614-129
Biologically active fusaric acid prepn. - 38401B/20

ATAR- 21.04.75 ATARA CORP D15 J02 =GB 1545-829
Mixing gases into liquids - 85290X/46

*AUBO= 01.03.76 AS UKR BOTANICAL GD D13 *SU -614-785
Fruit and vegetable preservation compsn. - 38473B/20

*AVWA- 09.11.77 ADV WATER SERVICES D15 J02 *DT 2848-688
Treatment of effluent liquors from demineralisation plant - 37475B/20

*BABA/ 07.07.70 BABAKOV F P C03 D13 (D16) *SU -614-784
Protein-vitamin yeast biomass additive for animal feed prodn. - 38472B/20

*BADI 00.00.73 BASF AG D15 E36 J03 M26 *DT 2750-029
Platinum gp. metal-doped electrolysis electrode for amalgam cells - 37341B/20

BADI 07.03.74 BASF AG A97 D25 E19 (A14 A23 A25) =DS 2410-824
Washing polyester textiles printed with dispersion dyes - 64085W/39

BADI 29.03.75 BASF AG D23 E15 (D21 D25) =DS 2513-996
Alkali-stable cyclopentene deriv. perfumes - 76050X/41

BADI 18.12.76 BASF AG C03 D13 E24 =CH -610-583
Canthaxanthin prodn. by oxidising iso-zeaxanthin or hydroxy-equinenone - 44101A/25

BADI 10.02.77 BASF AG D25 E17 =DS 2705-561
Use of di:ester of di:carboxylic acid with higher alcohol - 58723A/33

BADI 09.08.77 BASF AG D16 E19 F06 (E37) =FR 2400-075
Peroxide bleaching of textile material contg. cellulose - 09987B/06

BADI 23.09.77 BASF AG D25 E16 =DK 7804-214
Stabilising nonionic surfactant against alkali discolouration - 23957B/13

*BADI 07.11.77 BASF AG D23 E15 (D21 D25) *DT 2749-794
Bi:cycloheptane deriv. used in perfumery - 37326B/20

BADI 09.11.77 BASF AG D15 E36 J03 M26 =EP ---1-778
Platinum gp. metal-doped electrolysis electrode for amalgam cells - 37341B/20

BADM 26.05.76 ARENCO-BMD MASCH C04 D18 =US 4152-323
Leather scrapings dewatering plant - 72606Y/41

BAKP 26.11.76 BAKER PERKINS INC D11 =GB 1545-739
Food processing oven with oil ribbon burners - 40063A/22

BARB 02.10.72 BARBER COLMAN CO D15 #J7 9009-423
Carbon-contng waste wet-oxidn - 27359V/15

BATS/ 30.04.74 BATSCHEIDER A D13 =CA 1052-621
Natural vitaminisation of cereals - 76009W/46

BAUL 18.07.75 BAUSCH & LOMB INC D22 =CA 1052-525
Pocket decontaminator for hydrophilic contact lenses - 94336X/51

BEAF 12.08.77 BEATRICE FOODS CO D13 =FR 2399-805
Natural tasting cheese substitute compsns. - 14565B/08

BECI 14.06.76 BECKMAN INSTRUMENTS INC D15 #CA 1052-919
Water softener exhaustion detection - 51896X/27

BECI 28.09.77 BECKMAN INSTRUMENTS INC B04 D15 J04 (D16) =SW 7810-154
Detecting toxicity in aq. liquids by photometry - 10012B/06

BEEC 27.08.71 BEECHAM GROUP LTD D16 J04 =US 4152-210
Biochemical reaction with magnetisable active component carrier - 46856U/33

BEHW 29.04.74 BEHRINGWERKE AG B04 D16 =CA 1052-694
Schistosome antigens prodn. - 74341W/45

BEHW 25.06.74 BEHRINGWERKE AG B04 D16 =CA 1052-695
Vaccine against chagas disease - 03845X/03

BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 =DK 7804-144
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04

*BEKE/ 12.06.78 BEKES M D14 J02 *HU T016-352
Mixer for compsns. based on granulates and/or powders - B/20

BENC 28.10.77 BENCKISER-KNAPSACK D15 E11 F06 (F09) =EP ---1-811
N-Sulpho-hydroxy-alkane amino-alkane phosphonic acids - 35518B/19

BERP 28.10.77 BEROL KEMI AB D15 E11 =DT 2846-926
Removing oil fat, wax, etc. from a surface - 35799B/19

BERP 28.10.77 BEROL KEMI AB D15 E11 =NL 7810-748
Removing oil fat, wax, etc. from a surface - 35799B/19

BIOR 25.02.76 BIOREX LAB LTD A96 B04 D16 #US 4152-212
Purificn. of glucuronoglycosaminoglycan haluronate lyase - 15356X/09

*BIOT= 08.07.76 BIOTECH RGS INST D16 *SU -614-130
Beer wort prodn. from non-malted material - 38402B/20

BLAN/ 22.09.77 BLAND B J C03 D13 E17 =BR 7805-103
Particulate compsn. for preserving agricultural products - 87894A/49

BLEN 01.09.69 BLENDAX WERKE SCHNEIDER B04 D21 =DS 1944-308
Enzymatic compns for oral and dental care - 16952S/09

BLGN 26.09.77 BELGONUCLEAIRE D15 K07 =SW 7810-028
Treating water contaminated radioactively, chemically or biologically - 25181A/14

BOEF 18.03.77 BOEHRINGER MANNHEIM GMBH D16 E19 J04 =ZA 7801-569
Measuring or eliminating formate(s) or their precursors - 63401A/36

BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =DT 2748-036
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18

BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =NL 7808-428
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18

BOEF 09.12.77 BOEHRINGER MANNHEIM GMBH B04 D13 E13 J04 =US 4152-116
Colorimetric assay of ascorbic acid - 89647A/50

BOEH 12.08.76 BOEHRINGER INGELHEIM B04 D16 =ZA 7704-855
Immobilised enzyme on hardened porous protein support - 12290A/07

BORS/ 12.08.77 BORST A H D15 =FR 2399-857
Combined waste water treatment and rubbish disposal - 89700A/50

BORS/ 12.08.77 BORST A H D15 =FR 2399-859
Combined waste water treatment and rubbish disposal - 89700A/50

BOYD/ 03.11.76 BOYDEN J S A96 D22 F07 #GB 1545-974
Support structure for an orthopedic cast etc. - 88495X/47

BRBE- 30.09.77 BRITISH BEEF CO LTD D12 =SW 7810-080
Conveyor system for animal carcasses - 28273B/15

*BREW/ 02.04.76 BREWER J H B07 C03 D16 *US 4152-412
Immunising animals with vaccine contg. coloured particles - 38887B/20

BRIM 09.12.74 BRISTOL MYERS CO B03 C02 D13 =CA 1052-780
Kanamycin A and B semisynthetic derivs - 46482X/25

BRIM 13.07.77 BRISTOL MYERS CO B02 D16 =J5 4044-699
Antibiotics Bu-2313A and Bu-2313B - 09321B/05

*BRTA 09.05.75 BRIT AMER TOBACCO LTD D18 J04 *GB 1546-063
Mixing chamber for diluting tobacco smoke - 37602B/20

BRWI 13.04.77 BROWN & WILLIAMSON CORP D18 (D16) =US 4151 848
Denicotinising steamed tobacco by treatment with microorganisms - 38373Y/22

BUCM 21.04.76 BUCHERGUYER MASCH D13 =US 4151-795
Fruit juice extraction drum - 81426Y/46

*BUCM 08.08.77 BUCHERGUYER MASCH D13 *FR 2399-913
Rotary drum press to extract juice from fruit, esp. grapes - 37572B/20

*BUSL/ 22.03.75 BUS L E D21 E14 *FR 2399-834
Skin lotion for treating acne - 37567B/20

CALP- 13.08.77 CALPIS FOOD IND CO D11 E17 =FR 2399-804
Treatment of wheat flour - 14566B/08

CARL- 12.07.76 CARLE & MONTANARI D13 =DS 2648-296
Mould fastener for continuous chocolate moulding machine - 61268Y/35

CARV/ 12.09.77 CARVALHO R J D15 #ZA 7705-461
Waste water treatment by flocculation and oxidation - 70472Y/39

CAST/ 21.11.72 CASTELL W G D15 =DS 2357-707
Floating effluent treatment plant for offshore - 40357V/22

CELA 06.10.76 CELANESE CORP A88 D18 (A11) =BR 7706-686
Cigarette filters - 26944A/15

CELF- 11.08.77 CELFIL CO ESTAB D18 F09 =FR 2399-808
Mfr. of paper band for cigarette filter tips - 89704A/50

*CHEC/ 07.04.76 CHECHURA A A D16 *SU -615-129
Microorganisms culturing unit - 38654B/20

CHEM 28.09.77 CHEM WERKE HULS AG D25 E17 =SW 7810-097
Aq. cleaning solns. contg. alkyl glycol ether sulphate(s) - 25905B/14

*CHEM- 28.04.78 CHEMED CORP A97 D25 *ZA 7802-342
Cleaning compsn. - B/20

*CHRR 18.08.78 CHROMALLOY AMERICAN B04 C03 D16 *US 4152-413
Oral vaccine contg. virulent Treponema hyodysenteriae isolate - 38888B/20

*CHRR 18.08.78 CHROMALLOY AMERICAN B04 C03 D16 *US 4152-414
Vaccine for increasing resistance to swine dysentery infection - 38889B/20

*CHRR 18.08.78 CHROMALLOY AMERICAN B04 C03 D16 *US 4152-415
Vaccines contg. virulent Treponema hyodysenteriae isolate - 38890B/20

CIBA 19.04.72 CIBA GEIGY CORP B02 C02 D13 (B03) #US 4152-444
Rifamycin and nitrofuran mixtures - 74443T/47

CIBA 15.08.75 CIBA GEIGY AG B03 C02 D13 =CH -610-490
N(2)-(4-Azido-6-amino-s-triazin-2-yl)-N′,N′ dialkyl-formamidines - 24838X/14

*CIBA 26.04.76 CIBA GEIGY AG A25 D15 F06 G02 (F09) *CH -610-209
Wetting and antifoam agent based on anionic surfactant - 37224B/20

*CIBA 26.04.76 CIBA GEIGY AG A25 D15 F06 G02 (F09) *CH -610-210
Wetting and antifoam agent based on anionic surfactant - 37225B/20

CIBA 02.05.77 CIBA GEIGY AG A96 D21 =ZA 7802-496
Cosmetic products based on polymers contg. quat. ammonium gps. - 78369A/44

CIBA 09.09.77 CIBA GEIGY AG B02 C02 D13 (D22) #J5 4044-658
Papalucandin A and B ether derivs. - 19646A/11

CIBA 28.09.77 CIBA GEIGY AG D25 E34 =GB 2007-253
Aq. or powdery detergent compsns. - 28144B/15

*CIRC- 10.03.77 CIRCLE MACHINE CO D18 *US 4151-808
Appts. for spraying hides carried by conveyor - 38711B/20

*CLAR/ 16.11.77 CLARK W JR D15 *US 4152-080
Mobile pet waste liquefier - 38740B/20

CLBC 16.12.70 CALBIOCHEM B04 D16 =J7 9009-518
Determination of triglycerides in aqs liquids - 37231T/23

*CLEV- 22.12.77 CLEVEPAK CORP D15 *US 4152-259
Aeration of waste water - 38814B/20

COLG 15.03.71 COLGATE PALMOLIVE CO D25 E21 =CH -610-608
Bluing of fabrics - 62189T/39

COLG 13.06.73 COLGATE PALMOLIVE CO D21 E37 =US 4152-417
Alumina-contg. dentifrice compatible with aluminium containers - 19577A/10

COLG 28.04.75 COLGATE PALMOLIVE CO D22 F07 =GB 1546-113
Disposable nappy comprises absorbant pad attached to porous support - 70502X/38

COLG 29.12.75 COLGATE PALMOLIVE CO D22 F07 =CH -610-191
Babys disposable napkin has at least two absorbent pads - 31005Y/18

COLG 29.09.76 COLGATE PALMOLIVE CO A97 D25 =ZA 7705-371
Bottled detergent prod. with flowable detergent powder - 08409A/05

*COLG 30.12.76 COLGATE PALMOLIVE CO A96 B05 D21 E12 *US 4152-420
Oral anti-calculus compsn. - 38891B/20

COLG 25.05.77 COLGATE PALMOLIVE CO B06 D21 E34 =US 4152-419
Dentifrice compsn. contg. mono:fluorophosphate and fluoride - 68966A/39

COLG 15.07.77 COLGATE PALMOLIVE CO D25 =PT --68-288
Toilet soap contg. polyethylene oxide and fatty acids - 82204A/46

COLG 10.08.77 COLGATE PALMOLIVE CO D22 =FR 2399-809
Baby's disposable napkin with adhesive securing straps - 87884A/49

COLG 10.08.77 COLGATE PALMOLIVE CO D22 =PT --68-247
Baby's disposable napkin with adhesive securing straps - 87884A/49

CORG 14.09.77 CORNING GLASS WORKS D16 =BR 7805-890
Composites of microbes bound to porous support - 24332B/13

CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =NL 7803-958
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19

*CROY- 15.08.77 CROYSTER CHEMICALS B04 C03 D13 M14 *J5 4044-013
Prodn. of vesicant tablets contg. hygroscopic stabiliser - 37865B/20

*CSIN- 24.10.72 INST CONST GOSPOD D15 *RU --65-086
Aerator with rotor - B/20

*CSMA= 05.07.76 CONS MATER IND PROD D15 *SU -614-803
Centrifugal suspended solids clarifier for effluents - 38481B/20

CUKR- 22.04.71 CUKROPROJEKT BIURO D23 =RU --63-961
Edible fat deodorizing column - 17557V/10

*DAIN 12.09.77 DAINIPPON PHARM KK B04 D16 *J5 4044-601
Water soluble peptide glycan hydrolysate - 37925B/20

*DAMA/ 27.07.78 DAMAS R A D15 *PT --68-353
Desalination process including sepn. of salts with different densiti
B/20

DANA 26.09.77 DANFOSS A/S D25 E17 M12 (E14) =DK 7704-235
Fluid for cleaning worked metal articles - 26399B/14

*DANE- 26.10.76 DANEPAK LTD D12 *GB 1546-196
Inserting sepg. sheet between bacon slices - 37608B/20

DASU- 21.09.77 DANSKE SUKKERFAB AS A91 D13 (A25 A97) =D
7804-197
Anion exchanger resins for purificn. of fruit juice - 28122B/15

DCAF 05.10.77 DCA FOODS INDS INC D14 =BR 7806-617
Continuous treatment oven for food - 31850B/17

DEGS 20.09.76 DEUTSCHE GOLD & SILBER D15 E32 (E19) =DS 2642-198
Cadmium separation from water contg. chelating agents - 23489A/13

*DEJI- 14.11.77 DEJ INT RES CO BV A97 D13 *BE -871-939
Caffeine removal from carbon di:oxide extracts - 37162B/20

*DERE/ 27.06.78 DERETCHIN B B D13 *US 4152-466
Stable peanut butter syrup - 38908B/20

*DERO- 07.04.72 DERO INTR A97 D25 E19 *RU --65-760
Fragile fabrics cleaning compsn. - B/20

*DETE- 21.03.74 INTR DETERGENTI D25 E16 *RU --63-637
Linear 12-18C cyano-ethyl ether prepn. - B/20

DIAS 21.06.73 DIAMOND SHAMROCK CORP D15 =DS 2356-845
Electrosanitizing waste water - 01763W/01

DIAS 14.06.74 DIAMOND SHAMROCK CORP A97 D18 E11 =CA 1052-504
Water-resistant chrome-tanned leather - 00511X/01

*DOLI/ 17.07.78 DE OLIVEIRA A S D15 *PT --68-305
Purificn. of effluents with high biological content - B/20

*DOMO- 04.10.77 DOMO IND ENG LTDA D15 J01 *BR 7706-613
Equipment for separating oil from water - B/20

DOWC 28.02.77 DOW CHEMICAL CO D23 E14 H04 (H09) =ZA 7801-160
Hydrogenation of hydrocarbon(s) in water immiscible liq. phase
63841A/36

*DTRE- 24.07.74 DE TREY AG D21 E14 (E33) *CH -610-199
Two-component dental compsn. for under-filling, capping and repair
37223B/20

DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =DT 2749-317
Immobilising enzymes on amorphous silica carrier - 35242B/19

*EBAI 17.09.77 EBARA INFILCO KK D15 *J5 4045-964
Denitrification of waste water e.g. sewage - 38146B/20

ECON 08.07.77 ECONOMICS LAB INC D25 E17 (E14) =ZA 7802-275
Washing oil-soiled fabrics in two steps - 06276B/04

*ELEL- 25.11.76 ELELMEZESIPARI TERV D14 J04 *HU T016-434
Appts. for dissolving solids - B/20

ELIL 09.04.73 ELI LILLY & CO B02 D16 =RU --63-944
Fermentative deacetoxycephalosporin c prodn - 69735U/46

ELIL 02.10.75 ELI LILLY & CO B04 C03 D16 =HU T016-398
Antifungal antibiotic A-22082 - 25226Y/15

ELIL 09.06.76 ELI LILLY & CO B02 D16 =HU T016-381
(1)-Hydroxy-(6,6)-dimethyl-hexahydro-(9H) dibenzo (b,d)-pyran derivs.
86592Y/49

ELLC- 15.02.77 ELLCO PROTEIN AB D13 =US 4152-260
Removing iron cpds. from blood hydrolysates for food products
44132A/25

*ELSA/ 27.09.77 EL-SAYED R M D15 E14 *SW 7710-790
Biological degradation of phenol in aq. effluent - B/20

ENVI 30.08.74 ENVIROTECH CORP D15 J04 =US 4151-749
Appts. for taking liq. sample from flowing stream - 12488B/07

ESMI- 12.04.77 ESMIL BV D15 J08 =ZA 7802-109
Heat exchanger with fluidised granules - 74438A/42

ESMI- 13.09.77 ESMIL BV D15 =BR 7805-945
Appts. for distilling water esp. sea water - 24314B/13

ESPE 15.01.71 ESPE FAB PHARM PRAPARATE A96 D22 =J4 7042-830
Liquid for dental silicate cement - 49199T/31

ESPE 15.01.71 ESPE FAB PHARM PRAPARATE A96 D22 =J7 9009-208
Liquid for dental silicate cement - 49199T/31

ETHI 16.05.73 ETHICON INC A25 D21 F01 (A94 A96) =CA 1052-940
Sterlisable extrudable polyether polyurethane resin - 85351V/49

EXTE- 27.09.77 EXTERMA-GERM PROD L A94 D22 E14 F06 (D25) =DK 7804-179
Impregnated material esp. with antimicrobial compsn. - 10007B/06

EXTE- 27.09.77 EXTERMA-GERM PROD L A94 D22 E14 F06 (D25) =SW 7810-087
Impregnated material esp. with antimicrobial compsn. - 10007B/06

EXTE- 02.10.78 EXTERMA-GERM PRODS A94 D22 E14 F06 (D25) =GB 2007-096
Impregnated material esp. with antimicrobial compsn. - 10007B/06

FARB 13.04.72 BAYER AG C04 D25 E11 M11 (D15) =J7 9009-593
Phosphonic acid derivs - 65752U/44
FARB 24.01.74 BAYER AG C02 D22 =CH -610-308
N-(polycyclic hydrocarbyl)-4,5-bis trifluoromethylimino)imidazolones - 52664W/32
FARB 23.02.74 BAYER AG D16 E36 =CH -610-595
Clarifying wines, musts or fruit juice - 59030W/36
FARB 06.03.74 BAYER AG D22 E14 F09 =CA 1052-689
Anti-microbial finishing of paper - 62459W/38
FARB 28.06.74 BAYER AG A88 D15 J01 (A26) =CA 1052-707
Cyclic polyureas for semipermeable membranes mfr. - 03847X/03
FARB 27.04.77 BAYER AG B03 C02 D13 =ZA 7802-382
Animal growth stimulant and anticoccidial compsns. - 78333A/44
FARB 10.05.77 BAYER AG D21 E12 (E33) =ZA 7802-634
Treating dental ivory esp. dentine lesions - 82086A/46
FARB 19.08.77 BAYER AG A93 D22 E13 G04 (A26) =BR 7805-337
Silicone sealant compsns. contg. benzimidazolyl carbamate cpds. - 18204B/10
FARB 19.08.77 BAYER AG A93 D22 E13 G04 (A26) =J5 4043-260
Silicone sealant compsns. contg. benzimidazolyl carbamate cpds. - 18204B/10
FARB 13.09.77 BAYER AG C03 D16 E13 (D13 D17) =BR 7805-934
Continuous sucrose conversion to iso:maltulose - 22393B/12
FARB 13.09.77 BAYER AG A14 D21 (A25 A96) =J5 4043-954
Two/phase pearl polymers - 22260B/12
FARB 05.11.77 BAYER AG A96 D21 (A14 A25) =DT 2749-564
Polyurethane elasticised PMMA dental moulding - 86137A/48
FARH 18.07.74 HOECHST AG B03 C02 D13 E13 =CA 1052-786
6-Methyl-2H-1,3-oxazine-2,4(3H)-dione-3-sulphonyl halides - 09489X/06
FARH 25.03.77 HOECHST AG D21 E33 F06 J03 (D15 D22) =ZA 7801-707
Basic aluminium chloride solns. prepn. - 70790A/40
FARH 19.09.77 HOECHST AG D15 E19 M14 =BR 7806-084
Anticorrosion compsn. for ferrous metals - 22078B/12
*FARH 29.10.77 HOECHST AG D15 *DT 2748-638
Treatment of waste water contg. toxic materials etc. - 37247B/20
*FARH 29.10.77 HOECHST AG B02 D16 *DT 2748-659
Isolation of cephalosporin C - 37249B/20
FARH 29.10.77 HOECHST AG D15 =EP ---1-792
Treatment of waste water contg. toxic materials etc. - 37247B/20
FARH 29.10.77 HOECHST AG B02 D16 =EP ---1-797
Isolation of cephalosporin C - 37249B/20
*FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) *DT 2748-901
Preparing vinyl ester-crotonic acid copolymer - 37255B/20
FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =EP ---1-810
Preparing vinyl ester-crotonic acid copolymer - 37255B/20
FARH 02.11.77 HOECHST AG C03 D13 (D23) =NL 7810-892
Lipoid and water-soluble cpd. extn. from crushed oil seeds - 35568B/19
FARH 04.11.77 HOECHST AG A60 D23 E16 K01 (A14) =DT 2749-330
Surfactant mixt. of per:fluoroalkyl quat. ammonium alkyl sulphate(s) - 35259B/19
*FEDO/ 20.12.76 FEDOSEEV V F D16 E17 *SU -614-128
Microbiological citric acid prodn. - 38400B/20
FIND- 29.09.77 PROD FINDUS SA D11 =NO 7803-287
Pizza bottom mfr. - 28140B/15
FIND- 29.09.77 PROD FINDUS SA D11 =SW 7810-145
Pizza bottom mfr. - 28140B/15
*FIRM 11.05.76 FIRMENICH SA D23 E17 (E13) *CH -610-580
Isomerisation of conjugated olefin partic. terpene deriv. - 37233B/20
FIRM 26.08.77 FIRMENICH SA D23 E15 =J5 4044-640
Spiro cpd. prodn. for use in perfumery industry - 18353B/10
*FISO 31.10.77 FISONS CORP D22 *EP ---1-888
Sterilising soln. contg. physiologically acceptable salt and alcohol - 37529B/20
FMCC 03.05.78 FMC CORP D22 E13 #ZA 7802-554
Tetra:chloro-ammelide used for bleaching and disinfecting - 38448A/22
*FMCF- 04.10.77 FMC FILSAN EQUIP SA D15 *BR 7706-602
Sewage activation tank assembly - B/20
*FUJT 20.09.77 FUJISASH IND KK D15 L02 *J5 4045-965
Solidifying dewatered cake of sewage activated sludge - 38147B/20

*GALE- 09.11.77 GALEN LTD A97 D22 E17 (E12) *DT 2848-724
Disinfectant and sterilising compsns. esp. for iron surfaces - 37477B/20
GALL- 13.09.78 GALLAHER LTD A97 D18 =GB 2007-078
Preparing wrappings for smoking prods., esp. cigarette paper - 22053B/12
GENE- 08.11.77 GENENTECH INC B04 D16 =DT 2848-051
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =DT 2848-052
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =DT 2848-053
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =EP ---1-929
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =EP ---1-930
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =EP ---1-931
Recombining plasmid for transformation of bacteria - 35257B/19
GENO 05.08.70 GENERAL FOODS CORP D13 =J7 9009-142
Instant coffee prodn - 11867T/08
GENO 07.03.74 GENERAL FOODS CORP B05 D13 E16 =CA 1052-622
Dry, free-flowing, stable and soluble synthetic sweeteners - 62563W/38
GENO 28.09.77 GENERAL FOODS CORP D13 =SW 7808-283
Decaffeination of tea and coffee extracts - 68805A/38
*GFOO= 26.01.76 GEORG FOOD IND RES D13 *SU -614-783
Tea shoots fractionating appts. - 38471B/20
*GIDR= 10.11.75 GIDROLIZPROM PROD D17 E13 *SU -614-114
Reprocessing of cotton husks - 38386B/20
GIVA 07.07.67 GIVAUDAN L & CIE SA D23 E17 =DS 1768-793
Terpene derivs prepn intermediates for - 44193S/26
GIVA 09.09.74 GIVAUDAN L & CIE LTD D16 E15 =CA 1052-821
Humulones e.g. cohumulone from oxidation of desoxy cpds - 22639X/13
GIVA 11.08.77 GIVAUDAN L & CIE SA D13 E13 =FR 2400-020
4-Cyano-tetra:hydro-furan-3-one(s) and 4-hydroxy derivs. - 14604B/08
*GNZE 12.09.77 GUNZE KK D15 *J5 4044-352
Treating waste water from dyeing - 37900B/20
*GNZE 12.09.77 GUNZE KK D15 *J5 4044-353
Treating waste water from dyeing processes - 37901B/20
*GOME/ 04.10.77 GOMES O M D15 E36 J01 *BR 7706-631
Artificial oxygenator - B/20
*GRAC 11.01.78 GRACE W R CO D17 *BE -873-390
Spray drying solns. contg. mixture of sugars - 37194B/20
GREC 05.02.76 GREEN CROSS CORP B04 D16 =GB 1545-862
Gamma-globulin prepn. for treating Pseudomonas aeruginosa infections - 57886Y/33
GREO 09.11.77 GREFCO INC D16 =DT 2848-692
Reducing the beer-soluble iron content of diatomaceous earth - 21906B/11
*GYOG 16.09.76 GYOGYSZERKUTATO INT B04 D16 *HU T016-432
Anticancer, antibiotic and biochemical reagent actinomycin D prepn. - B/20

HAAR 30.11.73 HAARMANN & REIMER GMBH D23 E15 =CH -610-581
4-Tricyclo-decyl-8-butanal perfume - 39566W/24
HAAS/ 06.10.77 HAAS F D11 =BR 7806-558
Cooler for baked wafer sheets - 30148B/16
HARS- 27.08.75 HARSCO CORP D15 =GB 1545-917
Floating scum skimmer - 66697Y/37
HATC/ 05.07.77 HATCHER D B C03 D22 E12 F09 =BR 7804-337
Treatment of wood etc. with water-insoluble acidic fungicides - 04522B/03
HATC/ 05.07.77 HATCHER D B C03 D22 E12 F09 =BR 7804-338
Treatment of wood etc. with water-insoluble acidic fungicides - 04522B/03
HAYB 30.11.74 HAYASHIBARA SEIBUTS B04 D17 =CA 1052-717
Saccharified, maltose enriched starch product - 46347X/25
HAYB 30.09.77 HAYASHIBARA SEIBUTS A11 D17 F01 (D16) =GB 2007-245
Prods. based on new alpha-glucane - 30019B/16
HENK 28.11.69 HENKEL KG AUF AKTIEN D25 E36 (E14) =DS 1959-652
Viscous acid detergents for glass ceramic - 38235S/22
HENK 27.08.73 HENKEL KG AUF AKTIEN B03 C01 D13 E11 (D15 D21 D25) =DS 2343-196
Azacycloalkane-2,2-diphosphonic acids - 17441W/11
HENK 24.12.73 HENKEL KG AUF AKTIEN D21 E19 =CH -610-293
Novel N-polyhydroxyalkyl amino acids - 46388W/28
HENK 04.02.74 HENKEL KG AUF AKTIEN B05 D21 =CH -610-201
Aminoalkane-di phosphonic acids - 40945W/25
HENK 04.10.74 HENKEL KG AUF AKTIEN A97 D25 E36 (E11) =CA 1052-658
Washing agent for textiles contg. aluminosilicates - 28685X/16
HENK 30.04.75 HENKEL KG AUF AKTIEN D21 E13 =GB 1545-954
Aromatic cyclic acetals used as antiinflammatories - 84977X/46
HENK 08.08.75 HENKEL KG AUF AKTIEN D25 E19 =GB 1545-910
Washing compsn. contg. two cpds. as antifoaming agent - 09398Y/06
HENK 02.09.76 HENKEL KG AUF AKTIEN D21 E21 =J5 4044-042
Hair colouring agents giving wide range of colours - 19950A/11
HENK 20.12.76 HENKEL KG AUF AKTIEN D21 E13 =GB 1545-740
Treating hair with specified oxazolidine cpds. - 44096A/25
HENK 22.04.77 HENKEL KG AUF AKTIEN A97 D25 E33 (A25 E19) =ZA 7802-296
Phosphate free washing powder compsn. contg. aluminosilicate - 76322A/43
HENK 03.10.77 HENKEL KG AUF AKTIEN A96 D22 F07 =EP ---1-746
Sanitary tampon - 29896B/16
HENN- 29.08.77 HENNINGSEN FOODS D14 J08 =J5 4045-678
Horizontal spray dryer for food products etc. - 01958B/02
HIEJ 22.05.75 HITACHI PLANT ENG CONST D15 J01 =J7 9008-986
Treatment of industrial waste water contg. conc. oil component 04461Y/03
*HIRA/ 10.09.77 HIRAO C D16 J04 *J5 4044-700
Sepn. of silk material into constituent proteins and peptide(s) - 37981B/20

HISM 16.06.77 HISAMITSU PHARM KK A60 B05 D21 E19 (D25) =ZA 7802-228
4-Iso:hexyl-cyclohexane-carboxylic acid derivs. - 03426B/02

HITA 28.08.72 HITACHI KK D15 J01 =US 4152-218
Seawater distillation plant - 27396V/15

*HITA 16.09.77 HITACHI KK D15 K07 L02 *J5 4045-499
Removing surfactant from radioactive waste liq. - 38071B/20

*HITF 19.09.77 HITACHI SHIPBLD ENGG KK D15 J01 *J5 4045-675
Water-contg. waste oil treatment - 38113B/20

*HITF 19.09.77 HITACHI SHIPBLD ENGG KK D15 E36 J01 *J5 4045-966
Treating effluent from waste gas washing process - 38148B/20

*HITG 16.09.77 BABCOCK-HITACHI KK D15 *J5 4043-872
Preventing scale formation in sea water evaporator - 37780B/20

HOFF 12.03.73 HOFFMANN-LA ROCHE AG D13 E17 (D23) =J7 9009-164
Alpha, beta unsatd, aldehydes prepn. - 67808V/39

*HOFF 04.02.74 HOFFMANN-LA ROCHE INC B04 D16 *US 4152-424
Antibiotic 1745 A-X prepd. from Streptomyces antibioticus - 38893B/20

HOFF 12.08.77 HOFFMANN-LA ROCHE AG D23 E15 =FR 2399-995
2,2,4-Tri:methyl-cyclopent-4-en-1,3-di:one prepn. - 14605B/08

*HOHN/ 08.11.77 HOHN K D11 *DT 2750-358
Automatic mfr. of crackers - 37356B/20

HOOR/ 01.12.75 HOOREMAN M B07 C03 D13 (D16) =CH -610-346
Gelatine and protein concentrate prepn. - 40329Y/23

*HOSU- 14.09.77 HOSUI ENGINEERING K D15 *J5 4044-356
Denitrification of treated human waste liquor - 37902B/20

HUBE- 01.03.76 MACH FAB HUBERT W & D15 #US 4152-082
Drive for stirrer to aerate effluent - 68104Y/38

HUBE- 15.09.76 HUBER J M CORPORATI B06 D21 M14 =ZA 7705-284
Fluoride tooth:paste compsn. suitable for unlined aluminium tubes - 19654A/11

HULE- 12.09.77 HULETTS SUGAR LTD D17 =BR 7805-942
Vertical cylindrical continuous vacuum crystalliser esp. for sugar pro - 06105B/04

HYCO- 26.09.77 HYCOR CORP D12 =NO 7803-241
Doctor blade cleaning assembly - 29403B/15

HYCO- 26.09.77 HYCOR CORP D12 =SW 7809-582
Doctor blade cleaning assembly - 29403B/15

ICIL 14.08.74 IMPERIAL CHEM INDS LTD D16 =CA 1052-715
Continuous fermentation process - 14920X/09

ICIL 09.08.77 IMPERIAL CHEM INDS LTD D16 (D13) =FR 2399-863
Industrial aerobic fermentation - 11897B/07

*ICIL 01.11.77 ICI AUSTRALIA LTD C03 D13 *GB 2007-076
Chemically hardened animal feed blocks - 37609B/20

ICIL 03.11.77 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =DT 2847-373
Biocidal polyurethane(s) and polyester(s) - 33362B/18

ICIL 03.11.77 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =DT 2847-374
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18

ICIL 23.10.78 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =GB 2007-215
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18

IDEK 26.07.74 IDEMITSU INDUSTRIES KK D15 H05 =J7 9008-983
Petroleum-refining waste water treatment - 21648X/12

*IGOH/ 16.09.77 IGO H D21 *J5 4044-043
Compsn. for masking foul breath - 37882B/20

INBE- 11.04.75 INDUSTRIEBERATUNGS D15 =CH -610-579
Dewatering slurries continuously - 81456X/44

*INDU- 06.10.75 INTR CAR D13 H07 *RU --67-249
Non-toxic compsn. for food ind. - B/20

INFL 01.05.74 INT FLAVORS & FRAGR INC D23 E13 =CH -610-319
Isochromans prodn from 3-arylpropan-1-ols - 70510W/42

*INLO- 23.12.73 GRUP INTR IND LOCAL D13 *RU --65-189
Sugar, glucose and saponin halva prepn. - B/20

*INMI= 30.09.76 IND MICROORG GENET B02 D16 E11 (D13) *SU -615-130
Microbiological 5-inosinic acid prodn. - 38655B/20

INPL 02.10.72 INT PLAYTEX CORP D22 F04 #CA 1052-502
Catamenial tampon - 67310T/42

INRG 27.10.77 INST NAT RECH AGRON C02 D13 =NL 7810-617
Orotic acid and urea feedstuff additive - 18062B/10

INSP 08.08.77 INST PASTEUR A97 D16 (A14) =FR 2400-063
Coated supports for cell culture - 09966B/06

INTE- 18.07.78 INTREPRIND INTERCOO C03 D12 #PT --68-314
Continuous process and installation mfg. fodder from waste meat etc. - 82195A/46

*IOWA 18.08.78 IOWA STATE UNIV RES INC B04 C03 D16 *US 4152-414
Vaccine for increasing resistance to swine dysentery infection - 38889B/20

*IOWA 18.08.78 IOWA STATE UNIV RES INC B04 C03 D16 *US 4152-415
Vaccines contg. virulent Treponema hyodysenteriae isolate - 38890B/20

*IRRA= 01.10.76 IRKUT RARE NON-FERR A91 D15 J01 *SU -615-046
Ion-exchange removal of cyanide and thiocyanate from effluents - 38575B/20

ISTS 30.09.77 IST SIEROTER VACC SCLAVO B04 D16 =BR 7806-581
Adenylate kinase inhibitor, esp. for creatine kinase determn. - 28081B/15

*ITAL- 07.10.77 ITAL INST TEC ALIM D14 *BR 7706-712
Mechanical guava peeler - B/20

*ITMI- 29.07.71 INT FOUND MICROBIOL B04 D16 J04 *US 4152-242
Electrophoresis gel appts. for analytical determinations - 38804B/20

*JAPG 14.09.77 JAPAN GEON KK A88 D15 J01 *J5 4043-882
Semipermeable membrane prodn. for reverse osmosis and ultrafiltr
- 37787B/20

*JAPS 09.09.77 JAPAN SYNTHETIC RUBBER A23 D15 F06 J01 (A87 A
A96 D22) *J5 4043-298
Hydrophilic polyamide deriv. mfr. - 37709B/20

JELK/ 24.11.75 JELKS J W C03 D13 #CA 1052-616
Proc. for incg. digestibility of cellulosic plant matter to rumina
16796X/09

JOHJ 05.07.73 JOHNSON & JOHNSON D21 M26 =CA 1052-598
Nickel-chromium-silicon dental alloys - 03842W/03

JOHJ 06.03.75 JOHNSON & JOHNSON A96 D22 G03 (A18 A25) =G
1545-795
Highly conformable adhesive bandage backing - 64734X/34

JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =NL 7810-271
Low temp. maturing dental glaze - 78140A/43

*JOHN- 10.03.77 JOHNSTON LAB INC B04 D16 J04 (D13) *US 4152-213
Detection of oxygen consuming bacteria in samples - 38790B/20

JOHS 27.07.73 JOHNSON S C & SONS INC D25 E19 F06 =CA 1052-50
Softening agent prod - 53183W/32

KANF 11.08.77 KANEGAFUCHI KAGAKU D16 =FR 2400-061
Yeast fermentation appts. - 11920B/07

KAOS 29.03.76 KAO SOAP KK A96 D21 E19 (A25) =DS 2710-468
Transparent aq. hair rinsing compsn. - 74356Y/42

KAOS 12.10.76 KAO SOAP KK D21 E11 =US 4152-421
Foaming agent for tooth-pastes - 29075A/16

KAOS 13.09.77 KAO SOAP KK D25 E34 =J5 4043-199
Sodium percarbonate readily dissolving in tap water with foamin
24205B/13

*KAOS 16.09.77 KAO SOAP KK A97 D13 *J5 4044-061
Peeling citrus fruit segments - 37886B/20

*KARD/ 16.08.74 KARDOS T D15 M14 *HU T016-380
Detoxification of aq. effluents from surface treating plants - B/20

*KAWI 20.09.77 KAWASAKI STEEL KK D15 *J5 4045-674
Treating solns. having high concn. of sulphur ions - 38112B/20

*KAZM= 02.07.76 KAZMEKHANOBR D15 *SU -615-045
Automatic regulator for waste water ozonisation - 38574B/20

*KDPO= 04.10.76 KRASND POLY D14 J01 *SU -614-818
Centrifuge for separating food suspensions - 38495B/20

KELL/ 03.11.77 KELLERSCH J D21 =EP ---1-860
Hair lotion and restorer - 33440B/18

KEYS- 01.11.77 KEYSTONE FOODS CORP D12 =NL 7810-564
Densified frozen, meat-fibre slices with surface grooves - 35699B/19

*KHNO= 08.07.76 KHARK BR NONALCOHOL D16 *SU -614-130
Beer wort prodn. from non-malted material - 38402B/20

KIDA/ 12.09.77 KIDANI Y B02 D22 =J5 4044-620
Cis-platinum complexes - 22405B/12

*KIFO= 20.09.76 KIEV FOOD IND TECH D16 *SU -615-131
Continuous alcohol fractional distillation system - 38656B/20

*KIMB 04.11.77 KIMBERLY CLARK CORP D18 *DT 2847-860
Reconstituted tobacco mfr. from whole plants - 37435B/20

KIMB 04.11.77 KIMBERLY CLARK CORP D18 =GB 2007-079
Reconstituted tobacco mfr. from whole plants - 37435B/20

KITA 05.02.76 KITASATO INST. B04 C03 D16 =GB 1546-035
Pseudomonas aeruginosa toxoid vaccine - 57979Y/33

*KITR= 21.10.76 KIEV TRADE ECON INS D13 *SU -614-786
Fruit and vegetable preservation - 38474B/20

KRAM/ 19.07.76 KRAMER H D11 =CA 1052-766
Domestic dough kneader with flexible kneader arm support - 70385Y/39

KRAU/ 26.03.76 KRAUSE W D15 =US 4152-268
Porous flexible drainage sleeve for dewatering sludge - 04862A/03

*KUBI 14.09.77 KUBOTA KK D15 E36 J01 *J5 4043-875
Activated carbon adsorption tower control - 37783B/20

*KUBI 16.09.77 KUBOTA KK D15 *J5 4045-677
Dewatering of conc. sewage - 38115B/20

*KUBL- 09.11.77 FA KUBLER H D15 *DT 2750-028
Sewage sludge filter press system - 37340B/20

KURE 22.09.77 KUREHA KAGAKU KOGYO D13 E17 J01 =GB 2007-203
Ethylene adsorbent of active carbon - 29978B/16

*KURS 13.09.77 KURARAY KK D23 *J5 4044-044
Purificn. of perfume compsns. - 37883B/20

*KYOW 10.09.77 KYOWA FERMENTATION KK B04 D16 *J5 4044-094
Fermentative prodn. of phospholipase-D - 37891B/20

*KYOW 12.09.77 KYOWA FERMENTATION KK A97 B04 D16 *J5 4044-097
Fermentative prodn. of antibiotics - 37894B/20

*LANG- 04.01.68 LANG APP GMBH D15 J04 M14 *DS 1802-844
Liquid metering device - 37238B/20

NG/ 26.10.77 LANG O D12 *DT 2747-908
Animal carcass refrigeration system - 37245B/20
A= 03.08.76 LENGD BASIC CHEM C03 D13 E34 *SU -614-024
Prodn. of di:sodium phosphate with reduced moisture content - 38302B/20
CO= 26.04.77 LENGD COMMUN ECONOM D15 #US 4152-266
Rapid sand filter for sewage and water - 84307A/47
P 26.10.77 LEE PHARMACEUTICALS A96 D21 G03 =DT 2845-089
Orthodontic adhesive for bonding teeth to brackets - 35802B/19
MU= 02.08.76 LENGD MUNIC MANAG D15 J01 *SU -614-800
Distributing filters system for water or effluent purification - 38478B/20
PE 29.06.76 GRUPPO LEPETIT SPA B04 D16 =HU T016-399
Antibiotic L13365 from Actinoplanes sarveparensis CBS 305.76 - 02040A/02
GG 09.07.74 LIGGETT & MYERS INC D18 E14 =CH -610-495
Cinnamyl derivatives contg. ether or sulphide functions - 72521W/44
GG 30.10.75 LIGGETT & MYERS INC A88 D18 =CA 1052-655
Filter-tip for cigarettes - 63505X/34
ND 17.09.77 LINGENS & SOHNE D16 (D13) =BR 7806-067
Aerobic fermentation control - 26251B/14
ND/ 14.06.74 LINDROOS P G S C03 D13 =HU T016-401
Iron protoporphyrin derivs. separation from globin - 00513X/01
NM 03.11.77 LINDE AG D15 *DT 2749-265
Two/stage biological sewage treatment - 37266B/20
IOY 12.09.77 LION FAT & OIL KK A97 D25 *J5 4043-190
Aq. surfactant compsns. contg. high mol.wt. polymer - 37642B/20
IOY 12.09.77 LION FAT & OIL KK A97 D25 E17 (A25) =J5 4043-208
Easily rinsed out granular detergent compsns. - 24218B/13
IOY 12.09.77 LION FAT & OIL KK A96 D21 (A11) *J5 4043-210
Shampoo compsn. with improved foaming properties - 37650B/20
LIOY 12.09.77 LION FAT & OIL KK A96 D21 E16 (A11 A25) *J5 4043-211
Shampoo with improved foaming properties - 37651B/20
LIOY 12.09.77 LION FAT & OIL KK A96 D21 E12 (A25) *J5 4043-212
Shampoo compsn. - 37652B/20
LIOY 12.09.77 LION FAT & OIL KK A96 D21 E19 *J5 4043-213
Shampoo compsn. - 37653B/20
ONL- 19.04.78 LONDON LAB LTD D15 M28 *US 4152-229
Removing soluble metal ions from effluent water - 38795B/20
LUST/ 07.10.77 LUSTIG L P D21 *EP ---1-744
Bite registration device for making occlusal impressions - 37481B/20

MACL/ 08.11.77 MACLENNAN M E D12 (D16) *GB 2007-077
Mycelial meat analogues and extenders - 37610B/20
MASO/ 08.08.77 MASON S I D22 J01 #FR 2399-846
Device for dispensing volatile material e.g. insecticide or deodorant - 16139B/09
MATU 12.11.76 MATSUSHITA ELEC IND KK D16 J03 =US 4152-215
Controlling pH of culture soln. - 39706A/22
MATW 12.09.77 MATSUSHITA ELEC WORKS D21 E16 *J5 4044-041
Hair treatment compsn. for curled hair - 37881B/20
MEAC 22.08.77 MEAD CORP A92 D13 =US 4152-464
Aseptic packaging of acid foodstuffs - 15978B/09
*MEIJ 05.07.76 MEIJI SEIKA KAISHA D13 *US 4152-465
Removing odour and flavour from textured soya protein - 38907B/20
*MEIJ 08.11.77 MEIJI SEIKA KAISHA C03 D16 *DT 2848-224
Herbicidal compsn. contg. antibiotic SF-1293 - 37454B/20
*MEIK- 14.09.77 MEIKO KK D25 *J5 4043-904
Surfactant-impregnated paper used e.g. as a soap - 37803B/20
*MELY- 06.02.76 MELYEPITESI TERVEZO D15 *HU T016-379
Water clarification and/or softening plant - B/20
*MERE/ 17.01.77 MERENKOV A N D15 *SU -614-027
Water liming control in power stations - 38305B/20
MERI 10.08.71 MERCK & CO INC B04 D16 =DS 2265-327
Cariogenanases prepn - 11854U/09
MERI 22.07.77 MERCK & CO INC B04 D16 =J5 4044-015
Parainfluenza vaccine - 10360B/06
*MERI 12.10.77 MERCK & CO INC B02 C02 D18 E13 (D13 D21) *EP ---1-887
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) - 37528B/20
*MERI 17.10.77 MERCK & CO INC A11 D16 G02 L02 *EP ---1-895
Hetero:polysaccharide obtd. by fermentation of a Klebsiella strain - 37532B/20
MERI 01.11.77 MERCK SHARP & DOHME C03 D22 E13 F09 #NL 7712-033
Antimicrobial, antifungal 1,2,5-thiadiazolone-3.cpds. - 32025A/18
METT 14.04.69 M & T CHEMICALS INC D15 E37 J01 =J7 9008-902
Removal of heavy metals from effluent - 76964R/42
*MICR- 11.08.72 MICRO TRACERS INC C03 D13 K04 *US 4152-271
Homogeneous mixts. contg. finely divided ferromagnetic tracers - 38820B/20
*MIFO 09.08.77 SOC MINES FOND ZINC SA D15 J04 *FR 2400-200
Analysis of aq. soln. for mineral and organic content - 37588B/20
MILE 28.10.77 MILES LABORATORIES INC D13 =NL 7810-574
Juicy self-basting sausage-like food prods. - 07733B/04
*MIMA- 15.09.77 MIMATSU YUSHI KK D21 E17 *J5 4044-040
Stable skin cosmetic - 37880B/20
*MIME= 16.01.75 MINSK MEAT DAIRY D14 *SU -614-303
Food products conveyor dryer - 38434B/20
MINN 26.09.77 MINNESOTA MINING CO D21 M22 =SW 7809-968
Infiltrated, homogeneous metal object - 28158B/15
*MIRA- 19.02.75 MIRAJ INTR COSMET D21 *RU --63-708
Cosmetic compsn. - B/20
*MIRA- 27.06.75 MIRAJ INTR COSMET D21 *RU --63-509
Cosmetic compsn. for nails treatment - B/20
*MIRA- 27.06.75 MIRAJ INTR COSMET D21 *RU --63-689
Nail conditioning cream - B/20
MIRO- 03.11.77 MIRODUR ITALIANA SP D14 J02 =DT 2846-447
Machine for simultaneously grinding and mixing several substances - 18081B/10
*MITK 17.09.77 MITSUI TOATSU CHEM INC A60 D25 E33 G01 *J5 4045-698
Easily dispersible alumina hydrate mfr. - 38128B/20
MITS 04.11.75 MITSUBISHI PRECISIO D15 J02 (D16) =CH -610-216
Bubble generator without revolving parts - 34726Y/20
*MITU 14.09.77 MITSUBISHI CHEM IND KK D16 (D17) *J5 4044-093
Water-insoluble glucose isomerase moulding prepn. - 37890B/20
*MODE- 06.05.77 MODERN MAID FOOD PR D14 *US 4152-102
Extrusion of food via gated nozzle with extension - 38743B/20
*MOEN= 07.10.76 MOSC ENG CONS INST C03 D22 E34 F09 (E35) *SU -613-894
Compsn. for fireproofing and bio-protecting wood - 38284B/20
*MONS 31.10.77 MONSANTO CO A41 D22 E14 H06 (A60 H07) *EP ---1-909
1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - 37537B/20
*MORG/ 21.09.77 MORGILS C U B05 D18 *DK 7704-163
Anti-smoking agent - B/20
*MORI- 15.08.77 MORIROKU SHOJI KK B04 C03 D13 M14 *J5 4044-013
Prodn. of vesicant tablets contg. hygroscopic stabiliser - 37865B/20
MRSC 12.12.75 MARS LTD D13 =CH -610-496
Prodn. of pressed chocolate articles carrying a relief design - 41731Y/24
MULL- 28.04.75 FA MULLER H D17 E13 =CA 1052-718
Dextrose and dextrin prodn. from starches contg. proteins - 89076X/48
MUNC- 03.10.77 MUNCHMEYER & CO D12 =GB 2007-080
Machine to cut open and clean stomach of chickens, etc. - 11937B/07
*MURM= 16.08.76 MURMANSK GIPRORYBFL D12 *SU -614-294
Appts. separating frozen fish blocks - 38427B/20
*MYAG/ 19.01.76 MYAGKOV V YA D15 *SU -614-028
Magnetic treatment of liquids to reduce corrosion - 38306B/20

NAAR 15.03.76 NAARDEN INT NV D13 E13 =GB 1546-028
(4)-Methyl-(4)-furfurylthio-pentanone - 69259Y/39
*NAGO- 17.09.77 NAGOYA DAIGAKU-CHO A21 D15 H09 *J5 4045-963
Biological treatment of waste water contg. phenol(s) - 38145B/20
NARE- 11.08.77 NAT RES LABORATORIE D22 E12 #FR 2399-847
Antimicrobial heavy metal complexes with polyfunctional acids - 79262Y/44
NATR 03.05.77 NATIONAL RES DEV CORP D15 J01 =ZA 7802-363
Countercurrent decantation for liquid treatment of solids - 82554A/46
NATR 01.11.77 NATIONAL RES DEV CORP B04 D16 J04 =NL 7810-846
Enzymatic analysis using nitro-styrene derivs. - 18088B/10
*NCAU= 21.06.76 NORTH CAUCASUS FOOD D14 *SU -614-807
Dilute solutions prodn. control - 38485B/20
*NEAR/ 20.12.77 NEARHOOD T C D14 *US 4151-792
Cooker and mixer appts. - 38706B/20
NEDR- 28.10.77 NEDRE NORRLANDS PRO D13 =NL 7810-599
Whey based products prepn. from milk serum from cheese or caseinate - 16020B/09
NEST 15.11.74 SOC PROD NESTLE SA D13 =HU T016-336
Cytoplasmic protein isolation - 24994X/14
NEST 28.09.76 SOC PROD NESTLE SA D13 =CH -610-187
Sweetened conc. vegetable milk - 58017Y/33
NEST 29.09.77 SOC PROD NESTLE SA D13 (D12) =SW 7810-095
Textured food prod. similar to cooked meat - 14162B/08
*NIHS 12.09.77 NIPPON SURFACTANT KK A96 D21 E17 (A25) *J5 4044-039
Cosmetic compsn. e.g. hair lotion, cream or face mask - 37879B/20
NIMI 10.12.75 NIPPON LIGHT METAL KK D15 M11 =J7 9008-987
Treating waste water liquor from aluminium electrdeposition - 53006Y/30
NIRA 12.09.77 UNITIKA KK A21 D15 F01 J01 (A14 A97) =J5 4043-292
Etherified and chelated phenolic resin - 06095B/04
*NISO 12.09.77 NIPPON SHOKUHIN KAK KK D16 G03 *J5 4043-246
Prodn. of adhesive used for paper - 37674B/20
*NISO 12.09.77 NIPPON SHOKUHIN KAK KK D17 (D16) *J5 4044-045
Powdery starch sugar contg. cyclodextrin - 37884B/20
*NISP 07.07.76 NISSIN SHOKUHIN KAISHA A92 D13 *GB 1545-907
Water reconstitutable instant food prod. - 37599B/20
*NITT- 21.09.77 NITTO SEIKO KK D15 J01 *J5 4046-173
Liq. purifier for removing oil from a cleaning water - 38194B/20
NMHB 08.01.72 NORDISCHER MASCH D12 #US 4151-629
Fish-trimmings reclamation machine - 15896U/12
NOVO 22.07.75 NOVO INDUSTRI A/S D16 (D17) =GB 1545-766
Glucose isomerase prepn. by fermentation in presence of oxygen - 92449X/50

NOVO 23.08.77 NOVO INDUSTRI AS D16 (D17) =J5 4044-092
Glucose isomerase activated by water-soluble iron salt - 15971B/09
NOVO 23.08.77 NOVO INDUSTRI A/S D16 (D17) =US 4152-211
Glucose isomerase activated by water-soluble iron salt - 15971B/09
NOVO= 03.11.77 NOVOKUIB GIPROKAUCHUK A60 B07 D13 E14 (B05) #DT 2749-278
Methyl-di:tert.-butyl:phenol purification - 49676A/28
*NPIC- 08.05.78 NPI CORP D14 *US 4151-930
Patty feeder removing the bottom patty from a stack - 38730B/20

*OKAM/ 20.09.77 OKAMURA C D17 E33 M22 *J5 4046-135
Heat insulating compsn. of saccharide-contg. lime - 38177B/20
*OLES/ 27.09.77 OLESEN R S D14 *DK 7804-275
Combined cleaning mechanism and stone remover for root vegetables - B/20
OLIN 02.05.74 OLIN CORP A60 C02 D22 E13 =CA 1052-792
Antimicrobial bis-(2-pyridyl-1-oxide)-disulphide - 47579W/28
*OLIN 09.06.77 OLIN CORP C03 D13 *US 4152-398
Defluorinated phosphate rock granules prepn. - 38880B/20
*OMCO- 23.01.76 OMCO KK D15 J03 *US 4152-238
Increasing pH and softening drinking water by electrolysis - 38801B/20
OREA 05.02.73 L'OREAL SA A96 D21 (A11) =DS 2405-216
Delayed action anti-perspirant prods - 58787V/33
OREA 22.02.74 L'OREAL SA D21 E24 =CH -610-200
Dyeing human hair in luminous shades - 59140W/36
OREA 04.07.75 L'OREAL SA A96 D21 =GB 1546-162
Cationic quat. polymers for use in hair treating compsns. - 05590Y/04
OREA 29.07.76 L'OREAL SA A96 D21 (A14) =CH -610-338
Polymers absorbing ultraviolet radiation - 82954Y/47
OREA 17.09.76 L'OREAL SA D21 E14 =US 4152-112
Substd. alkoxy para-phenylene di:amine - 15862A/09
OREA 07.09.77 L'OREAL SA A96 D21 E19 =BR 7805-846
Hair dyeing compsn. contg. specified cationic polymer - 20012B/11
*OREA 15.11.77 L'OREAL SA A96 D21 *BE -871-908
Cosmetic compsn. based on aq. spherule dispersions - 37155B/20

PAEC/ 02.03.74 PAECH E D11 =CH -610-492
Bread slices with long shelf life - 47753W/29
*PARN/ 21.05.75 PARNABY D D15 J01 *GB 1545-787
Clarification of waste liquid and sludge - 37595B/20
*PEAT= 06.12.76 PEAT IND RES INST B04 C03 D13 *SU -614-782
Prodn. of agricultural animal or plant growth stimulator - 38470B/20
*PERA/ 10.08.77 PERA D D16 *FR 2399-967
Must sampling attachment for winemaking grapes hopper - 37573B/20
*PETR- 16.06.72 COMB PETROCH PITEST D15 *RU --65-130
Removal of organic impurity traces - B/20
PETZ- 26.09.77 MASCH PETZHOLDT J S D13 =DK 7804-233
Continuous cocoa paste roasting process - 08081B/05
PFIZ 03.03.76 PFIZER INC B05 D13 E17 H04 =DS 2659-459
Citric acid by aerobic Candida fermentation in slack wax media - 25058Y/14
PFIZ 18.08.77 PFIZER INC B04 D16 =J5 4044-602
Antibacterial antibiotic 47444 - 18411B/10
*PFIZ 15.11.77 PFIZER INC D16 H01 *BE -871-955
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
PFWB- 13.12.73 BEHEER P F W B V D13 E13 =CH -610-497
Tetrahydro-2-thienyl and -2-furanyl sulphides - 43020W/26
PHIM 08.08.77 PHILIP MORRIS INC D18 =FR 2399-807
Swelling tobacco by impregnating with liquid carbon di:oxide - 87871A/49
PHIP 30.12.74 PHILLIPS PETROLEUM CO D13 =CA 1052-626
Patterned three coloured ice cream dispensed into container - 88722X/47
*PIEL- 15.05.72 INST PIELARIE CAUCI D18 E19 (E37) *RU --65-000
Hides tanning and treatment - B/20
PITC/ 27.04.77 PITCHER F L D15 =ZA 7802-392
Desalination of water by distn. employing natural or waste heat - 08459B/05
*PLAN= 22.03.76 PLANTS BACTERIAL B04 D16 *SU -614-131
Antibiotic nisin prodn. for food preservation - 38403B/20
*PRIO/ 17.10.77 PRIORE A B04 D16 J04 *BE -871-848
Treatment of disease with negative ions - 37140B/20
PROC 17.07.74 PROCTER & GAMBLE CO D13 E36 =CA 1052-618
Phosphoric acid-contg. soft drink flavour base compsn. - 09608X/06
PROC 23.07.75 PROCTER & GAMBLE CO A97 D25 =GB 1545-801
Spray-dried, whitening washing powder compsn. - 09278Y/06
PROC 23.07.75 PROCTER & GAMBLE CO D25 E24 =GB 1546-139
Coloured granules for speckling washing powders - 09279Y/06
PROC 29.10.76 PROCTER & GAMBLE CO A97 D25 E19 F06 (D21) =US 4152-272
Perfumed fabric conditioner contg. carrier and perfume particles - 33745A/19
*PROC 27.10.77 PROCTER & GAMBLE CO D13 *EP ---1-850
Recovering aroma and flavour prods. - 37509B/20
*PROC 07.11.77 PROCTER & GAMBLE CO D25 E33 (D16) *EP ---1-853
Detergent compsn. contg. crystalline aluminosilicate builder - 37510B/20

*PRPO= 03.01.77 PERM POLY D15 J04 *SU -614-029
Biochemical oxidation process parameters determining appt
38307B/20
*PRZE- 18.07.78 PRZEDSIEBIORSTOW IN D15 *PT --68-315
Installation for biological treatment of sewage water - B/20

*QUAK 02.08.76 QUAKER OATS CO D13 *US 4152-462
Stable marshmallow food bar - 38905B/20
*QUAK 02.08.76 QUAKER OATS CO D13 *US 4152-463
Stable marshmallow food bar prodn. - 38906B/20
QUAK 26.09.77 QUAKER OATS CO C02 D13 E13 (C03) =DK 7803-652
Methyl-pyrid-2-yl-methyl mercaptan derivs. - 14177B/08
QUAK 26.09.77 QUAKER OATS CO C02 D13 E13 (C03) =NO 7802-805
Methyl-pyrid-2-yl-methyl mercaptan derivs. - 14177B/08
QUAK 26.09.77 QUAKER OATS CO C02 D13 E13 (C03) =SW 7808-430
Methyl-pyrid-2-yl-methyl mercaptan derivs. - 14177B/08
QUEN/ 10.08.77 QUENTIN G D17 =FR 2400-064
Purifying technical sugar solns. using ion exchangers - 89697A/50

*RAFI- 18.05.73 INST RAFINAR PETRO D15 *RU --65-449
Waste water purification plant - B/20
*RAIT/ 14.09.77 RAITT E D D14 J02 *US 4152-079
Dispensing appts. for ice cream and yogurt - 38739B/20
RALS 11.07.74 RALSTON PURINA CO C03 D13 =CA 1052-615
Protein and cereal-contg. cat-food - 81484W/50
*RALS 09.11.77 RALSTON PURINA CO C03 D13 *DT 2848-152
Acid-modified fat as feed supplement additive for cattle - 37447B/20
*RALS 09.11.77 RALSTON PURINA CO C03 D13 *DT 2848-182
Liq. feed supplement for cattle contg. acid-treated fat - 37448B/20
*RALS 09.11.77 RALSTON PURINA CO C03 D13 *DT 2848-183
Feed supplement for cattle contg. hydroxylated propane deriv.
37449B/20
*RALS 09.11.77 RALSTON PURINA CO C03 D13 *DT 2848-184
Food supplement for cattle contg. a fatty acid deriv - 37450B/20
RANG- 14.11.78 RANGER TOOL CO INC D12 #BE -871-993
Appts. for transporting frankfurter casings - 85848A/47
RECA 18.06.76 RECHERCHES & IND THERAPE B04 D16 =CH -610-347
Determination of attenuation of type A influenza viruses - 03875[illegible]/03
REGC 23.09.77 UNIV OF CALIFORNIA B04 D16 =DK 7802-333
Purifying nucleotide sequences for insertion into microorganisms
80247A/45
*REGE/ 07.02.75 REGENT J J D15 *CA 1052-918
Waste water plant combining activated sludge and decantation stage
37222B/20
RHEE 04.11.77 RHEEM MFG CO D12 =DT 2826-596
Stuffing horn assembly with separate horns - 21796B/11
RHON 22.04.74 RHONE-POULENC INDUSTRIES D16 E14 =CH -610-333
Dextro-amino acid oxidase separation and purification - 72841W/44
RHON 15.10.74 RHONE-POULENC INDUSTRIES D15 J01 =CA 1052-708
Spacer for semi-permeable membranes - 32391X/18
RHON 27.07.77 RHONE-POULENC INDUSTRIES A97 D16 E13 (A11 D17) =J5 4044-089
Cells contg. glucose-isomerase enclosed in cellulose ester - 08012B/05
RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A25) =DT 2846-984
Anti-soil and anti-redeposition detergent compsn. - 33374B/18
RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A25) =NL 7810-881
Anti-soil and anti-redeposition detergent compsn. - 33374B/18
*RHON 24.07.78 RHONE-POULENC INC D23 E17 (D13) *US 4152-530
Allylic alcohol prepn. from allylic halide(s) - 38933B/20
RICH 07.11.73 RICHARDSON-MERRELL INC B02 C02 D13 (D22) =CH -610-326
Penicillins and cephalosporins as broad-spectrum antibiotics - 22543W/1
ROHM 27.06.77 ROHM & HAAS CO A97 D25 E32 (A14 E16 E35) =J5 4045-312
Aq. polymer prepn. used in detergent, esp. carpet shampoo - 06308B/0
*ROSE/ 13.02.78 ROSE J G D15 *US 4152-262
Domestic water filtration and purificn. in single housing - 38815B/20
ROTO- 31.10.77 ROTOCROP INT LTD D16 =NL 7810-317
Machine to chop vegetable waste for compost - 18082B/10
*ROUS 27.10.77 ROUSSEL-UCLAF B04 D16 *EP ---1-945
polysaccharide extracted from Haemophilus influenzae - 37557B/20
*ROVO= 18.01.77 ROST VODOKANALPROEK D15 *SU -614-030
Effluent biochemical cleaning automatic control - 38308B/20
RUTH/ 02.11.77 RUTHNER O D16 =GB 2007-072
Continuous mushroom prodn. - 35669B/19

SAAR- 29.06.77 SAARBERG FERNWARME C04 D15 =J5 4045-272
High grade fertiliser prodn. - 02320B/02
*SAFE- 20.06.74 SAFE-TECH INC D25 E17 (E34) *US 4152-305
Non-toxic general purpose liq. cleaning compsn. - 38840B/20
*SAGA 12.09.77 SAGAMI CHEM RES CENTRE B05 D23 E15 *J5 4044-605
Methanol prepn. from carbon mon:oxide and hydrogen - 37927B/20
*SAIT/ 17.09.77 SAITO S D21 E16 *J5 4045-311
Toilet soap compsn. contg. milk protein - 38016B/20
SAKB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 =FR 2400-000

KB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 =FR 2400-001
Cyclopentanol derivs. - 14431B/08
KB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 =FR 2400-002
2-(2-Pentynyl)-cyclopentanol derivs. - 14432B/08
KB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 =FR 2400-003
2-Cyclopentenone derivs. with jasmine smell - 14429B/08
LI- 12.08.77 CIE SALINS MIDI EST D22 E19 =FR 2399-806
Stabilising halogenated organic bactericides in hygroscopic salts - 37849A/49
LZ 03.11.77 SALZGITTER MASC D17 J01 *DT 2749-282
Continuous (sugar) centrifuge with steaming device - 37267B/20
LZ 03.11.77 SALZGITTER MASC D17 J01 *DT 2749-283
Device for continuous sugar centrifuge - 37268B/20
LZ 03.11.77 SALZGITTER MASC D17 J01 *DT 2749-284
Continuous dissolution centrifuge esp. for sugar - 37269B/20
ALZ 03.11.77 SALZGITTER MASCH D17 J01 *DT 2749-285
Continuous centrifuge esp. for sugar - 37270B/20
ANN 22.12.76 SANYO CHEM IND A91 D15 F09 (A14 A97) =US 4152-7
Quat. ammonium monomer-based water-in-oil polymer emulsions - 48129A/27
AOK 27.11.74 SANYO KOKUSAKU PULP D15 F09 =J7 9008-985
Treatment of waste water from pulp or paper mfr. - 54819X/29
CHO- 28.10.77 SCHOXI AG D11 =NL 7810-529
Whipped foam for cakes - 72923A/41
CHO- 02.11.77 SCHOKOLADEN-VERARBE D13 =NL 7810-390
Continuous tempering of chocolate mass - 33364B/18
EIS- 13.09.77 SEISHIN SEIYAKU A89 D16 E36 J04 *J5 4043-791
Reagent for quantitative hydrogen peroxide determn. - 37739B/20
HEL 17.07.75 SHELL INT RES MIJ BV D25 E17 =GB 1546-127
High viscosity detergent compsn. with low clearing point - 36629A/21
HIE 12.09.77 SHINETSU CHEM IND KK C02 D13 E13 *J5 4044-675
Prodn. of 3-hydroxy-4-pyrone cpds. - 37968B/20
HIE 16.09.77 SHINETSU CHEM IND KK D15 J01 *J5 4043-871
Sepg. water soluble organic acid from inorganic acid - 37779B/20
HIO 05.02.76 SHIONOGI KK B04 C03 D16 =GB 1546-035
Pseudomonas aeruginosa toxoid vaccine - 57979Y/33
HIS 13.09.77 SHISEIDO KK D23 *J5 4044-044
Purificn. of perfume compsns. - 37883B/20
SIMM- 13.10.77 SIMMERING-GRAZPAUKE C03 D13 =GB 2007-075
Activated feedstuffs prepn. - 31817B/17
SMIN 19.08.77 SMITH & NEPHEW PHAR A97 D22 E36 (A14 E19) =J5 4044-014
Solid sterilising compsn. contg. iodophor and aldehyde cpd. - 00044B/01
SNAM 27.07.77 SNAMPROGETTI SPA A96 B07 D22 =FR 2399-836
Biocompatible polymers prepn. - 08021B/05
SNAM 14.09.77 SNAMPROGETTI SPA D15 =BR 7806-045
Multistage evapn. plant to desalinate sea-water, etc. - 18035B/10
SODA- 29.07.77 SODASTREAM LTD D15 =PT --68-320
Portable water carbonator for sparkling drinks - 84161A/47
SORE- 05.03.75 SOREAT SA D13 =CA 1052-617
Coating confectionery based on gum arabic - 81519W/50
SORG/ 11.08.77 SORG E C03 D16 (D13) =FR 2400-062
Protein-rich nutrient material prepn. from cellulose material - 16143B/09
SPIT/ 17.09.76 SPITZER J G A96 D21 E19 (E32 E33) =US 4152-416
Antiperspirant aerosol compsn. contg. synthetic polymer gum - 23320A/13
SPOF 02.08.77 SPOFA SPOFENE FARM NP B02 C02 D13 =J5 4044-685
2-Formyl-quinoxaline-1,4-di:oxide-cyano-acetyl hydrazone derivs. - 14438B/08
SQUI 08.06.77 SQUIBB E R & SONS INC A81 D22 G03 (A18 A96) =ZA 7802-545
Adhesive used partic. for abdominal stoma - 89643A/50
SQUI 08.06.77 SQUIBB E R & SONS INC A96 D22 G04 (A18) =ZA 7802-595
Formable compsn. used as protective layer for stoma in surgery - 89644A/50
STAM 28.11.73 STAMICARBON BV D23 J04 =CH -610-220
Nickel catalyst for hydrogenation - 39703W/24
STAM 14.06.74 STAMICARBON BV B05 D16 E14 =CA 1052-716
D-phenyl-glycinamide and L-phenyl-glycine prepn. - 00033X/01
STAU 30.05.75 STAUFFER CHEMICAL CO D13 E12 =CA 1052-774
Recovery of protein and sodium lauryl sulphate from theriir complexes - 94591X/51
STEI 24.02.77 STEINECKER A MASCH GMBH D16 =DS 2707-963
Cooker inside brewing copper - 63645A/36
STEM- 25.08.73 STEMMLER M AND H GMBH D12 =DS 2342-985
Delicatessen products with preservative coatings of uniform thickness - 67864V/39
STER 07.11.77 STERLING DRUG INC D15 =DT 2847-663
Compressing injection air for wet oxidn. purificn. of organic waste - 33356B/18
STER 07.11.77 STERLING DRUG INC D15 =GB 2007-311
Compressing injection air for wet oxidn. purificn. of organic waste - 33356B/18
STER= 03.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05) #DT 2749-278
Methyl-di:tert.-butyl:phenol purification - 49676A/28
*STIB 05.11.77 STIEBEL WERKE GMBH D12 *DT 2749-667
Steak preparation attachment for domestic appliance - 37312B/20
STIC/ 14.03.75 STICKL H B04 D16 =CA 1052-696
Topical preparations for acne vulgaris - 74225X/40
STIG/ 30.09.77 STIGEBRANDT A D15 =SW 7710-986
Mobile sludge treatment appts. - 28278B/15
*STIL 04.11.77 STIERLEN-MAQUET AG D22 *DT 2749-448
Cleaning combined with disinfection - 37291B/20
STON/ 09.11.77 STONE I D22 #DT 2750-167
Sterilisation of biological materials - 84482Y/47
*SUMB 16.09.77 SUMITOMO BAKELITE KK A97 D13 *J5 4044-071
Chewing gum prepn. using a crosslinked gluten compsn. as base - 37887B/20
*SUMO 05.11.77 SUMITOMO CHEMICAL KK A97 B04 D16 *DT 2805-950
Immobilised enzyme carrier of macroporous anion exchange resin - 37364B/20
*SVME- 25.01.78 SVENSKA MEJER RIKSF D13 *BE -873-406
Continuous prodn. of buttery prod. spreadable at low temps. - 37197B/20

TAKS 08.08.77 TAKASAGO PERFUMERY KK D23 E15 =FR 2399-996
4-Hydroxy-4-methyl-cyclohex-2-en-1-one - 14601B/08
*TALA- 12.12.74 TALAJMUVELESI KUTAT C04 D15 *HU T016-327
Disposal of liquid fertiliser and urban effluent - B/20
*TAMB= 01.09.76 TAMBOVKOLKHOZPROEKT D14 *SU -614-810
Animal feedstuffs drum mixer - 38488B/20
TATL 18.04.75 TATE & LYLE LTD A60 D25 E13 G02 =CH -610-591
Purified saccharose fatty acid ester surfactant - 81230X/44
TATL 26.04.77 TATE & LYLE LTD D18 (D13 D21) =ZA 7802-383
Smoking products based on tobacco contg. taumatin or monellin - 63444A/36
*TECA- 26.09.77 TECATOR AB D13 J04 *SW 7710-720
Analysis of both water-soluble and insoluble food fibre components - B/20
TECN- 19.07.77 TECNICOMPLEX SPA D16 =PT --68-296
Mechanised digester used to produce fertiliser from organic waste - 84173A/47
TEEP 15.07.74 TEE PAK INC A97 D12 #CA 1052-620
Wetting fluid for synthetic sausage skins - 63039Y/36
TEEP 28.09.77 TEE PAK INC A97 D12 =SW 7809-984
Internally coated cellulose sausage casings - 13989B/07
TEIN- 10.08.77 CENT TECH INTERPROF D14 =FR 2399-867
Centrifugal disc husking machine for small seeds, e.g. rapeseed - 09971B/06
TELL- 10.02.75 TELLUSOND AB D15 J01 #CA 1052-538
Extracting dissolved substances from water - 96078X/51
TERE- 11.08.77 TECH RES AFFILIATES B04 D16 #FR 2400-204
Rheumatoid factor immuno-agglutination detection - 18133B/10
TEXC 12.09.77 TEXACO DEV CORP A97 D25 E16 (A25) =J5 4043-890
Surface active agents prepd. from specified alkanol - 20043B/11
TEXC 31.10.77 TEXACO DEV CORP D15 =NL 7808-779
Treating waste water contg. cyanide and formate(s) - 33367B/18
*TEXT- 26.09.77 STATNI VU TEXTILNI A11 D22 (A96) *SW 7710-740
Oxidised cellulose or its salts for sanitary purposes - B/20
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =GB 2007-227
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
*THOM/ 09.03.78 THOMAS N F D15 J01 *ZA 7801-378
Water treatment and filtering appts. - B/20
*TOKE 16.09.77 TOKYO SHIBAURA ELEC LTD D15 J04 *J5 4044-595
Determn. of the activity of active sludge - 37923B/20
TORA 27.04.76 TORAY INDS INC A91 D13 E16 =US 4152-493
Metal removal from aminoacid prods. - 81494Y/46
*TOXO 16.09.77 TOYO SEIKAN KAISHA A97 D13 *J5 4044-061
Peeling citrus fruit segments - 37886B/20
TOYJ 13.02.76 TOYO SODA KK B05 D13 E36 =DS 2704-545
Pure phosphoric acid prodn. - 59683Y/34
*TOYM 13.09.77 TOYOBO KK B04 D16 *J5 4044-095
Formaldehyde-dehydrogenase prepn. - 37892B/20
*TSUB 13.09.77 KUMIAI CHEM IND KK A60 C01 D22 E12 (D15) *J5 4044-024
Fungicidal and algicidal compsn. e.g. for water systems - 37871B/20
*TUCH= 09.11.76 TULA CHEM IND RES D25 E12 *SU -615-062
Betaine amphoteric surfactants prepn. - 38590B/20
*TUMA/ 29.12.75 TUMASONIV I YU D13 *SU -614-816
Centrifugal liquid e.g. milk fractions separator - 38493B/20
TURE/ 24.04.78 TUREAUD K E A96 D21 (A14) #ZA 7802-315
Plastic jaw impression spoon - 48082A/27

*UHLK- 28.10.77 GEB UHL GMBH D12 *NL 7810-732
Device for supplying cooled drinking water to meat processor - 38281B/20
UKAT 28.01.76 UK ATOMIC ENERGY AUTH D15 J01 =GB 1545-854
Apparatus for desalinating water - 66006Y/37
*UKAT 06.12.76 UK ATOMIC ENERGY AUTH A88 D15 J01 *GB 1546-179
Module for reverse osmosis - 37607B/20
UNDE- 19.07.77 UNDERBERG-HANDELS D16 =PT --68-293
Prepn. of bubbling, sparkling and champagne type wines - 84154A/47

UNIC 02.04.73 UNION CARBIDE CORP D15 =DS 2365-749
Sewage treatment plant - 05540V/04
UNIC 27.03.74 UNION CARBIDE CORP D12 =CA 1052-619
Shirred sausage casing stick with end plug - 47636W/28
UNIC 30.10.75 UNION CARBIDE CORP D12 =CH -610-493
Filling shirred casings to form large dia. sausages - 30978Y/18
UNIC 26.11.75 UNION CARBIDE CORP D12 =CH -610-494
Filling gauge for large dia. sausage casings - 38101Y/22
* **UNIC** 03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) *EP ---1-867
Peelable cellulosic casing for food prods. - 37518B/20
UNIL 13.07.67 UNILEVER NV D13 =DS 1692-535
Water-soluble and/or water-dispersible phosphatide emulsions - 62791Z/00
UNIL 01.04.70 LEVER BROTHERS CO B05 D21 =US 4152-418
Anti-plaque and anti-calculus tooth paste compsn. - 38400A/21
* **UNIL** 23.11.70 LEVER BROTHERS CO D25 E19 *US 4152-515
Alpha alkoxy or alkylthio-hydroxy-succinic acid salts - 38926B/20
UNIL 31.01.73 UNILEVER NV D12 =DS 2404-610
Meat products mfr. - 58765V/33
UNIL 03.10.73 UNILEVER NV D21 E34 =CH -610-202
Monofluorophosphate addn. to transparent tooth-pastes - 26220W/16
UNIL 09.10.73 UNILEVER NV D13 =CH -610-188
Fat compsn. for plastic margarine - 26268W/16
UNIL 14.04.75 UNILEVER NV A92 D13 =CH -610-272
Vented packs for aseptic pasteurised food - 79419X/43
UNIL 10.09.76 UNILEVER LTD C03 D23 =ZA 7705-440
Purifying tri:glyceride cpds. by adding hydratable phosphatide - 19676A/11
UNIL 24.09.76 UNILEVER LTD D13 =ZA 7705-712
Water-in-oil margarine contg. proteose-peptone - 23360A/13
UNIL 24.09.76 UNILEVER LTD D11 =ZA 7705-713
Aseptic conditioning of bakery products esp. bread rolls - 23359A/13
UNIL 22.08.77 UNILEVER NV A97 D25 =BR 7805-400
Coloured specks for addn. to washing powders - 21208B/11
UNIL 22.08.77 UNILEVER NV D25 E34 =J5 4043-209
Aq. liq. detergent compsn. prepn. for washing clothes etc. - 14186B/08
UNIL 25.08.77 UNILEVER NV D25 =BR 7805-507
Liquid injection in cleansing agent - 18355B/10
UNIL 15.09.77 UNILEVER NV D24 E17 =BR 7806-027
Soap tablets contg. at least one per cent free carboxylic acid - 20034B/11
UNIL 06.10.77 UNILEVER NV D18 E11 =BR 7806-651
Nourishing tanned leather - 27865B/15
UNIL 26.10.77 UNILEVER NV A97 D25 (A14 A25) =NL 7810-618
Stain removing compsn. esp. for use in cold rinse - 33336B/18
UNIL 31.10.77 UNILEVER NV D25 E19 =NL 7810-775
Fabric softener compsn. - 33373B/18
* **UNIL** 10.11.77 UNILEVER NV A97 D25 *BE -871-861
Alkaline particulate detergent compsns. for washing clothes etc. - 37143B/20
* **UNIL** 10.11.77 UNILEVER NV D23 (D13) *BE -871-930
Margarine fat based on eighteen carbon fatty acids - 37159B/20
UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =NL 7810-068
Lubricating binder for animal feeds - 65374A/37
UNVO 08.10.71 UNIVERSAL OIL PROD D15 #RU --63-525
Waste water treatment - 12550T/08
UPJO 01.03.76 UPJOHN CO B01 D16 =DT 2759-540
Androstadienedione and androst-ene-dione prepn. - 65257Y/37
* **URAS-** 09.09.77 URASHIMA NORI KK D13 *J5 4044-073
Natural flaky seasoning - 37888B/20
USAS 04.08.70 NAT AERO & SPACE ADMIN B04 D16 =J7 9009-079
Bacteria determination in urine - 16917T/11
* **USDA** 07.10.77 US SEC OF AGRICULTURE B04 D16 *US 4152-214
Prepn. of cephalotaxine and related antitumour alkaloid(s) - 38791B/20
* **USDA** 19 05.78 US SEC OF AGRICULTURE D23 H07 M22 *US 4152-278
Wax esters of vegetable oil fatty acids - 38825B/20
USHE/ 20.10.78 USHER T A D14 =GB 2007-087
Machine to trim heads of carrots, etc. for canning - 18055B/10
* **UYDE-** 01.06.77 UNIV OF DELAWARE B03 D16 *US 4152-513
Prepn. of alkyl glycoside(s) of amino sugars - 38924B/20
* **UYGA-** 14.12.72 UNIV GALATI B04 D16 *RU --65-974
Bioflavone concentrate prepn. - B/20

VDON/ 31.03.76 VAN DONKELAAR J A D14 =US 4151-847
Safe, automatic plant stalk stripping machine - 52278Y/30
* **VOLG=** 18.01.77 VOLGA LIGHT CARS COMBINE D15 *SU -614-030
Effluent biochemical cleaning automatic control - 38308B/20

WACK 29.04.74 WACKER CHEMIE GMBH B03 C02 D13 E13 =CH -610-316
Purification of 2-aminothiazole - 76006W/46
WACK 12.12.74 WACKER CHEMIE GMBH A31 D14 J02 =CH -610-218
Mixer with ribbed rotating shaft - 48213X/26
WACK 12.08.77 WACKER CHEMIE GMBH A96 D21 (A26) =FR 2400-052
Dental casts and casting spoons prepn. - 16163B/09
WADL 05.11.76 WADLEY RES INST BLOOD BK B04 D16 =GB 1546-043
Detecting pathogens in fluid samples by centrifuging - 33443A/19
WDAI- 07.11.77 WESTERN DAIRY PROD D14 J01 =DT 2846-856
Removing dense impurities e.g. metal fragments, from food slu
17762B/09
WESS 23.04.75 WESTFALIA SEPARATOR AG D13 =GB 1545-952
Standardized milk production - 85094X/46
* **WIER-** 10.10.77 WIERNER LAB SAIC D23 (D16) *BR 7806-667
Enzymatic hydrolysis of fatty acid esters - B/20
WILL/ 24.11.72 WILLARD M J D13 =CA 1052-623
Potato-based fried food prod eg potato crisps - 26989V/15
WINC- 04.04.75 WINCANTON ENG LTD D13 =US 4152-101
Production of blocks of natural cheese - 63492X/34
WISE/ 22.05.75 WISER J A D24 =GB 1545-948
Solid soap prepn. - 06561Y/04
WRIL 10.01.69 WRIGLEY W JR CO B07 D21 =DS 2000-851
Anti -caries chewing gum containing alde - 49063R/27

* **YAMA** 02.08.77 YAMANOUCHI PHARM KK B03 D21 E13 *J5 4044-038
Dental plaque prevention compsn. - 37878B/20
YAMA/ 09.08.77 YAMAMURA Y A96 B04 D16 =FR 2399-844
Antitumour compsn. - 14567B/08

* **ZERI-** 09.09.77 ZERIYA SHINYAKU KOG B04 D16 *J5 4044-004
Urokinase compsn. for oral admin. - 37858B/20

-R BD
-744-161 R27+
7000-180 R29
2000-851 R33
7000-044 R36
2034-461 S07
3651-206 T16
1298-742 T49
3015-632 U20
-929-788 U30
2000-851 B20+

4-R DEJ
2017-041 R42
7005-348 R43
7002-364 S04
3575-854 S17
2043-280 S17
1296-873 T47
-916-322 T51
2017-041 B14
9008-902 B20

01-S D
3563-763 S08+
1692-573 B20

52-S BD
-755-331 S09
1944-308 S10
7011-985 S10
2060-336 S37
B 1265-468 T09
H -547-638 V20
S 1944-308 B20

710-S DH
2037-575 S10
T 2110-205 S43
S 3729-410 U19
B 1347-755 V09
S 2110-205 B20

235-S DE
E -759-467 S22
T 1959-652 S23
L 7015-662 S24
R 2072-503 T01
H -546-822 V17
S 1959-652 B20

1193-S DE
GB 1237-923 S26+
CA -889-328 T02
H -514-528 T03
H -521-296 T26
H -523-212 T34
7 2043-526 T46
7 2043-526 T46
7 3019-613 U25
JS 3872-172 W13
JS 3935-275 X06
NL -149-478 X24+
JS 3962-283 X25+
JS 3965-198 X27+
JS 3974-226 X34+
JS 3939-206 X09+
JS 3984-446 X42+
DT 1793-854 B18+
DS 1768-793 B20+

1867-T D
DT 2139-021 T08
J4 7005-263 T13
FR 2104-017 T29
GB 1295-705 T45
US 3749-378 U34
CA -964-644 W14
J7 9009-142 B20

2550-T D
US 3635-820 T08
DT 2142-730 T16
ZA 7105-672 T19
J4 7006-383 T20
FR 2106-224 T30
DT 2142-730 U43
CA -941-526 V08
GB 1351-961 V18
RU --63-525 B20+

16917-T BD
DT 2138-841 T11+
J4 7004-349 T11
FR 2101-223 T27
FR 2141-680 U14
US 3745-090 U31
GB 1330-594 U38

CA -945-461 V17+
J7 9009-079 B20+

37231-T BD
BE -776-034 T23
J4 7012-650 T27
NL 7117-275 T27
DT 2162-325 T27
ZA 7107-957 T36
FR 2118-454 T47
US 3703-591 T48
DL --94-077 U06
CA -955-161 V41
GB 1373-106 V45
CH -563-404 W30
CH -566-003 W38
CA -985-607 X14
J5 3114-493 A45
J7 9009-518 B20

49199-T AD
DT 2101-889 T31
NL 7200-358 T32
BE -778-023 T33
FR 2127-004 U04
DL --94-233 U09
GB 1382-881 W06
GB 1382-882 W06
CA -984-987 X12
US 3986-998 X44
CH -588-863 Y29
US 4082-722 A21
J4 7042-830 B20
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32540-U BD
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GB 1440-842 X27
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CA 1013-691 Y30
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DS 2365-749 B20

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RU --63-961 B20

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27359-V D
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J7 6008-836 X16
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40357-V D
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NL 7315-728 V23+
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CA 1015-473 Y34+
DS 2357-707 B20+

58765-V D
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58787-V AD
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DK 7405-648 W33+
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PT --62-782 W37+
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GB 1481-418 Y30
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CH -610-188 B20

27495-W D
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NL 7415-763 W25+
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AR -201-345 W40+

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DS 2456-953 B20+

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46388-W DE
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SW 7415-085 W33
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OE 7409-681 X20
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IT 1027-906 B11
CH -610-293 B20

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SW 7505-136 W52
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ZA 7502-024 X17
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GB 1469-907 Y14
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SW 7503-575 W47
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BR 7501-797 X04
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CA 1052-619 B20

47753-W D
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CH -610-492 B20

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GB 1448-963 X37
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53183-W DEF
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GB 1477-162 Y25+
CA 1052-506 B20+

59030-W DE
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GB 1483-861 Y34
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CH -610-200 B20

62459-W DEF
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SF 7500-616 W51
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FR 2263-298 W52
CH -586-750 Y22
GB 1493-085 Y47
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69160-W BD
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J5 1070-879 X31
J5 0126-883 Y44
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GB 1507-175 A15+
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74341-W BD
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ZA 7502-717 X21
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CA 1052-694 B20

76006-W BCDE
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CA 1052-621 B20

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SW 7506-774 X10
NO 7502-473 X11+
DK 7503-130 X16+

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GB 1459-740 Y01+
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OE 7505-148 A26
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1519-W D
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DK 7502-943 X48
SF 7502-062 X48
FR 2302-693 Y02
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OE 7505-331 Y44
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CH -609-840 B16
CA 1052-617 B20

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GB 1503-583 A11
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00511-X ADE
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J5 1007-102 X10+
FR 2274-689 X14+
BR 7503-739 X30+
US 4018-559 Y17+
GB 1495-438 Y51+
CA 1052-504 B20+

00513-X CD
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OE 7504-565 A13
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SW 7507-203 X09
DK 7502-872 X14
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GB 1517-011 A27
IL --47-509 B08
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03847-X ADJ
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GB 1488-300 Y41
OE 7504-913 Y44
SW 7800-543 A35
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BE -831-532 X07+
DK 7503-266 X18+
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J5 1034-172 X19+

ZA 7504-352 X35
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GB 1508-870 A17+
OE 7505-485 A26
CA 1050-978 B13+
CA 1052-786 B20+

09608-X DE
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NL 7508-485 X06
BE -831-419 X07
SW 7508-152 X11
DK 7503-254 X18
FR 2278-272 X19
J5 1051-563 X25
US 3966-994 X28
ZA 7504-225 X31
GB 1462-169 Y03
OE 7505-567 A22
CA 1052-618 B20

14920-X D
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FR 2281-980 X22+
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15356-X ABD
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US 4152-212 B20+

16796-X CD
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BR 7600-957 Y38+
SW 7601-726 Y39+
FR 2340-690 Y48+
CA 1052-616 B20+

21648-X DH
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J7 9008-983 B20

22639-X DE
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NL 7510-179 X13
DT 2539-014 X14
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J5 2083-628 Y34+
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CA 1052-821 B20

24838-X BCD
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FR 2284-599 X26+
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US 4020-067 Y18+
J5 2083-579 Y34+
GB 1517-218 A28+
CH -600-765 A28+
CH -602-001 A33
IL --48-073 B08+
CH -610-490 B20

24994-X D
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FR 2290-848 X38
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HU T016-336 B20

28685-X ADE
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32391-X DJ
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46347-X BD
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46482-X BCD
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DK 7505-510 X38
FR 2293-941 X43
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ZA 7507-652 Y01
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48213-X ADJ
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NL 7513-473 X27
FR 2293-970 X43
GB 1520-490 A32
CH -610-218 B20

51896-X D
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CA 1052-919 B20+

54819-X DF
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J7 9008-985 B20

63492-X D
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SW 7603-799 X47
SF 7600-837 X52
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FR 2305-930 Y05
ZA 7602-006 Y19
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GB 1542-844 B13
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63505-X AD
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ZA 7601-362 Y13
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DS 2558-004 A15
US 4088-065 A26+
GB 1520-583 A32
CA 1052-655 B20

64734-X ADG
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GB 1545-795 B20

70502-X DF
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DT 2618-036 X48

DK 7601-904 Y03
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GB 1546-113 B20

74225-X BD
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CA 1052-696 B20

76050-X DE
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NL 7603-219 X42
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DK 7803-508 B13+
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DK 7703-664 B14+
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SW 7809-820 B19
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22393-B CDE
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DK 7804-017 B17+
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37454-B CD
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GB 2007-077

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37650-B AD
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37652-B ADE
J5 4043-212

37653-B ADE
J5 4043-213

37674-B DG
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37780-B D
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37783-B DEJ
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37878-B BDE
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9-B ADE
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1-B DE
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2-B D
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86-B AD
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7893-B BDE
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7894-B ABD
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7899-B D
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7981-B DJ
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38113-B DJ
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38115-B D
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38711-B D
US 4151-808 B20

38730-B D
US 4151-930 B20

38739-B DJ
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38740-B D
US 4152-080 B20

38743-B D
US 4152-102 B20

38790-B BDJ
US 4152-213 B20

38791-B BD
US 4152-214 B20

38795-B DM
US 4152-229 B20

38801-B DJ
US 4152-238 B20+

38804-B BDJ
US 4152-242 B20+

38814-B D
US 4152-259 B20

38815-B D
US 4152-262 B20

38820-B CDK
US 4152-271 B20+

38825-B DHM
US 4152-278 B20

38840-B DE
US 4152-305 B20

38880-B CD
US 4152-398 B20

38887-B BCD
US 4152-412 B20+

38888-B BCD
US 4152-413 B20

38889-B BCD
US 4152-414 B20

38890-B BCD
US 4152-415 B20

38891-B ABDE
US 4152-420 B20+

38893-B BD
US 4152-424 B20+

38905-B D
US 4152-462 B20+

38906-B D
US 4152-463 B20+

38907-B D
US 4152-465 B20

38908-B D
US 4152-466 B20

38924-B BD
US 4152-513 B20

38926-B DE
US 4152-515 B20+

38933-B DE
US 4152-530 B20

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37143B A97D25
37155B A96D21
37159B D23
37162B A97D13
37168B D16H01Q4
85848A D12+Q3

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37194B D17
37197B D13
37210B D18P1

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B D15
B D15J01
B D15E36J01P3
26944A A88D18P1
B D14

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7 04522B C03D22E12F09P6
8 04522B C03D22E12F09P6

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3 87894A C03D13E17
7 18204B A93D22E13G04
0 21208B A97D25
7 18355B D25
6 20012B A96D21E19
0 24332B D16
4 22393B C03D16E13
2 06105B D17
5 24314B D15

7806
27 20034B D24E17
45 18035B D15
67 26251B D16
84 22078B D15E19M14
58 30148B D11Q7+P5
81 28081B B04D16R1
17 31850B D14P2+Q7
51 27865B D18E11
67 B D23

1052
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504 00511X A97D18E11
506 53183W D25E19F06
525 94336X D22P3+Q7R2
538 96078X D15J01
598 03842W D21M26P3+P5
615 81484W C03D13
616 16796X C03D13
617 81519W D13
618 09608X D13E36
619 47636W D12+Q3Q6
620 63039Y A97D12
621 76009W D13+P4Q7
622 62563W B05D13E16
623 26989V D13
626 88722X D13
655 63505X A88D18P1
658 28685X A97D25E36+P4
689 62459W D22E14F09
694 74341W B04D16+R1
695 03845X B04D16
696 74225X B04D16
707 03847X A88D15J01
708 32391X D15J01+Q7
715 14920X D16
716 00033X B05D16E14
717 46347X B04D17
718 89076X D17E13
766 70385Y D11+P2
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=201 40945W B05D21
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* 209 37224B A25D15F06G02
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=333 72841W D16E14
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DK 7802
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DK 7804
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* 275 B D14

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DS 1768
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DS 2265
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DS 2342
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DS 2365
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DS 2410
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DS 2456
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DS 2513
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DS 2642
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* 659 37249B B02D16
* 901 37255B A14D21G03

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* 283 37268B D17J01P4
* 284 37269B D17J01P4
* 285 37270B D17J01P4
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* 448 37291B D22P2P4
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* 667 37312B D12
* 794 37326B D23E15

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* 029 37341B D15E36J03M26
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* 358 37356B D11

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DT 2805
* 950 37364B A97B04D16

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=856 17762B D14J01P4
=926 35799B D15E11
=984 33374B A97D25

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* 860 37435B D18P1

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* 152 37447B C03D13
* 182 37448B C03D13
* 183 37449B C03D13
* 184 37450B C03D13
* 224 37454B C03D16
* 688 37475B D15J02
=692 21906B D16
* 724 37477B A97D22E17P3

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* 850 37509B D13
* 853 37510B D25E33
=860 33440B D21
* 867 37518B A97D12
* 887 37528B B02C02D18E13
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* 895 37532B A11D16G02L02
* 909 37537B A41D22E14H06
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EP ---1
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* 945 37557B B04D16

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=805 14565B D13
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=809 87884A D22P2
* 834 37567B D21E14
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=844 14567B A96B04D16
# 846 16139B D22J01+P3
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=863 11897B D16
=867 09971B D14P4
* 913 37572B D13P7Q6
* 967 37573B D16Q3R1
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=052 16163B A96D21P3
=061 11920B D16
=062 16143B C03D16
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=064 89697A D17
=075 09987B D16E19F06
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# 204 18133B B04D16R1+P3

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=810 33801A D25E17
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=862 57886Y B04D16
* 907 37599B A92D13Q3
=910 09398Y D25E19
=917 66697Y D15
=948 06561Y D24
=952 85094X D13P1+R2
=954 84977X D21E13
974 88495X A96D22F07P3+P7

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=043 33443A B04D16R1+P3
* 063 37602B D18J04
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=127 36629A D25E17
=139 09279Y D25E24
=162 05590Y A96D21
* 179 37607B A88D15J01
* 196 37608B D12Q3

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=075 31817B C03D13+P4
* 076 37609B C03D13
* 077 37610B D12
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=087 18055B D14
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=215 33363B C03D22E19G02P3
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=245 30019B A11D17F01
=253 28144B D25E34
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HU T016
* 327 B C04D15P1
=336 24994X D13
* 352 B D14J02
* 379 B D15
* 380 B D15M14
=381 86592Y B02D16
=398 25226Y B04C03D16
=399 02040A B04D16
=401 00513X C03D13
* 432 B B04D16

HU T016

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J5 4043

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*211	37651B	A96D21E16
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*213	37653B	A96D21E19
*246	37674B	D16G03
=260	18204B	A93D22E13G04
=292	06095B	A21D15F01J01
*298	37709B	A23D15F06J01
*791	37739B	A89D16E36J04R1
*871	37779B	D15J01
*872	37780B	D15
*875	37783B	D15E36J01
*882	37787B	A88D15J01
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*904	37803B	D25
=954	22260B	A14D21

J5 4044

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=014	00044B	A97D22E36P3
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*024	37871B	A60C01D22E12
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*040	37880B	D21E17
*041	37881B	D21E16
=042	19950A	D21E21
*043	37882B	D21
*044	37883B	D23
*045	37884B	D17
*057	37885B	D13
*061	37886B	A97D13
*071	37887B	A97D13
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=092	15971B	D16
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*356	37902B	D15
*595	37923B	D15J04R1
*601	37925B	B04D16
=602	18411B	B04D16
*605	37927B	B05D23E15
=620	22405B	B02D22
=640	18353B	D23E15
#658	19646A	B02C02D13
*675	37968B	C02D13E13
=685	14438B	B02C02D13
=699	09321B	B02D16
*700	37981B	D16J04

J5 4045

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=310	15979B	D13
*311	38016B	D21E16
=312	06308B	A97D25E32P2
*499	38071B	D15K07L02
*674	38112B	D15
*675	38113B	D15J01
*677	38115B	D15
=678	01958B	D14J08Q7+P6
*698	38128B	A60D25E33G01
*962	38144B	D15
*963	38145B	A21D15H09
*964	38146B	D15
*965	38147B	D15L02
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J5 4046

*135	38177B	D17E33M22P5
*173	38194B	D15J01

J7 9008

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=985	54819X	D15F09
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J7 9009

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=079	16917T	B04D16R1
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=164	67808V	D13E17
=208	49199T	A96D22
#423	27359V	D15
=518	37231T	B04D16R1
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NL 7712

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NL 7803

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NL 7808

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NL 7810

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=317	18082B	D16P4+P1
=390	33364B	D13
=529	72923A	D11
=564	35699B	D12
=574	07733B	D13
=599	16020B	D13+P1
=617	18062B	C02D13
=618	33336B	A97D25
*732	38281B	D12
=748	35799B	D15E11
=775	33373B	D25E19
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NO 7803

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PT --68

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RU --63

*120	B	D15
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*637	B	D25E16
*689	B	D21
*708	B	D21
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=961	17557V	D23

RU --64

*992	B	B03D16

RU --65

*000	B	D18E19
*020	B	B05D16
*086	B	D15
*130	B	D15
*189	B	D13
*449	B	D15
*760	B	A97D25E19
*974	B	B04D16

RU --67

*249	B	D13H07

SU -613

*894	38284B	C03D22E34F09P6

SU -614

*024	38302B	C03D13E34
*027	38305B	D15R2
*028	38306B	D15
*029	38307B	D15J04R1
*030	38308B	D15R2
*100	38372B	C04D13
*113	38385B	B04D16
*114	38386B	D17E13
*128	38400B	D16E17
*129	38401B	D16E13
*130	38402B	D16
*131	38403B	B04D16
*294	38427B	D12Q7
*303	38434B	D14Q7
*782	38470B	B04C03D13
*783	38471B	D13
*784	38472B	C03D13
*785	38473B	D13
*786	38474B	D13
*800	38478B	D15J01
*803	38481B	D15
*807	38485B	D14R2
*810	38488B	D14
*816	38493B	D13P4
*818	38495B	D14J01P4

SU -615

*045	38574B	D15R2
*046	38575B	A91D15J01
*062	38590B	D25E12
*129	38654B	D16
*130	38655B	B02D16E11
*131	38656B	D16

SW 7710

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*740	B	A11D22
*790	B	D15E14
=986	28278B	D15+Q4

SW 7808

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=430	14177B	C02D13E13

SW 7809

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=984	13989B	A97D12Q6

SW 7810

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US 4151

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*808	38711B	D18P4
=847	52278Y	D14+P1
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*930	38730B	D14Q3

US 4152

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*080	38740B	D15
#082	68104Y	D15+Q6
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*102	38743B	D14
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=210	46856U	D16J04
=211	15971B	D16
#212	15356X	A96B04D16
*213	38790B	B04D16J04
*214	38791B	B04D16
=215	39706A	D16J03P1R1
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*229	38795B	D15M28
*238	38801B	D15J03
*242	38804B	B04D16J04R1
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*262	38815B	D15
#266	84307A	D15
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*305	38840B	D25E17
=307	48129A	A91D15F09
=323	72606Y	C04D18
*398	38880B	C03D13
*412	38887B	B07C03D16P3
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*414	38889B	B04C03D16
*415	38890B	B04C03D16
=416	23320A	A96D21E19
=417	19577A	D21E37+Q3
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=419	68966A	B06D21E34
*420	38891B	A96B05D21E12
=421	29075A	D21E11
=423	32540U	B04D16+P3
*424	38893B	B04D16
#444	74443T	B02C02D13
*462	38905B	D13
*463	38906B	D13
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*466	38908B	D13
=493	81494Y	A91D13E16
*513	38924B	B03D16
*515	38926B	D25E19
*530	38933B	D23E17

ZA 7704

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ZA 7705

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=440	19676A	C03D23
#461	70472Y	D15
=712	23360A	D13
=713	23359A	D11+Q3

ZA 7801

=160	63841A	D23E14H04
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=707	70790A	D21E33F06J03

ZA 7802

=109	74438A	D15J08Q7
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=275	06276B	D25E17+P4
=296	76322A	A97D25E33
#315	48082A	A96D21P3
*342	B	A97D25
=363	82554A	D15J01+P4
=382	78333A	B03C02D13
=383	63444A	D18P1
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=496	78369A	A96D21
=545	89643A	A81D22G03P3
#554	38448A	D22E13P3
=595	89644A	A96D22G04P3
=634	82086A	D21E12

CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

WEEK B21
11 JULY 79
38968B - 40606B

ABSTRACTS

INDEXES

- II - PATENTEE
- V - BASIC NUMBER
- VII - PATENT NUMBER

COUNTRY	PUB. DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	15 MAY - 21 MAY 79	872,030 - 872,188
-Non Delayed	16 MAY 79	873,485 - 873,671
BRAZIL	10 APR 79	7,701,385 - 7,808,282
CANADA	24 APR 79	1,052,951 - 1,053,400
DENMARK	30 APR 79	7,704,278 - 7,804,388
E.GERMANY	7 MAR 79 + 14 MAR 79 +	93,912 - 132,408
	21 MAR 79 + 28 MAR 79	134,473 - 134,907
W.GERMANY		
-DAS	17 MAY 79	1,522,244 - 2,845,542
-OLS	17 MAY 79	2,454,738 - 2,849,816
FRANCE*	16 MAR 79	2,400,309 - 2,400,823
	(BOPI 20 APR 79)	
UNITED KINGDOM	23 MAY 79	1,546,201 - 1,546,630
		2,007,481 - 2,007,950
ITALY	10 MAR 79	1,029,001 - 1,029,500
JAPAN		
-Unexamined	—	48,041,756 - 52,045,602
	12 APR - 17 APR 79	54,046,201 - 54,048,763
-Examined	26 APR - 2 MAY 79	79,009,601 - 79,010,280
NETHERLANDS	7 MAY - 13 MAY 79	7,712,108 - 7,811,135
NORWAY	30 APR 79	7,603,467 - 7,900,793
SOVIET UNION	—	615,281 - 616,615
UNITED STATES		
-Reissues	8 MAY 79	Re29,984 - Re29,992
-Patents	8 MAY 79	4,152,782 - 4,153,951
PCT	17 MAY 79	7,900,246 - 7,900,277

*Printed patents actually published late April - early May, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

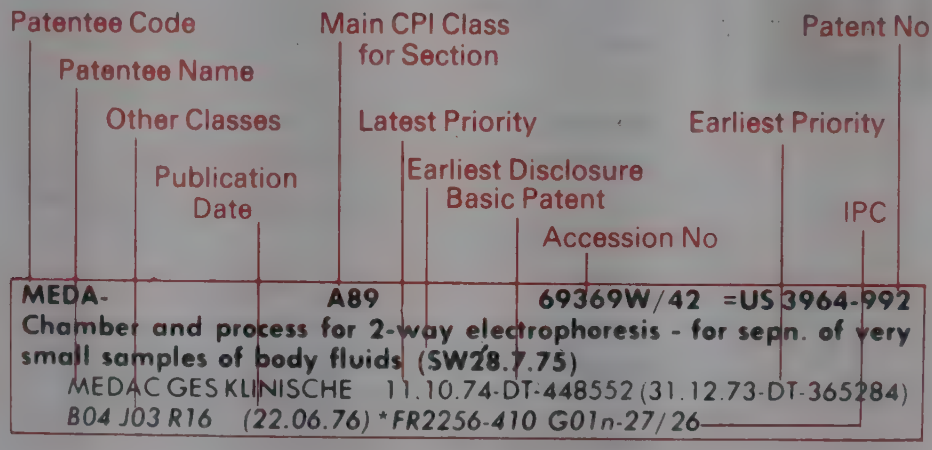
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

/ ★ D11 B/21 ★BR 7706-162
ading machine for bread making - including spiral fork for gh movement activated by two pulleys and two gears
SEJTMAN J 14.09.77-BR-006162
(10.04.79) A21c-01/02

T/ ★ D11 B/21 ★BR 7706-163
ading machine for bread making - has pulley complex driving ft to move large basin where dough is handled
SEJTMAN J 14.09.77-BR-006163
(10.04.79) A21c-01/02

BH/ ★ D11 39106B/21 ★DL -134-722
cessing enzyme-rich baking flour - by adding polyvalent ion salt d/or aminated or amino-carboxylic acid or deriv.
GEBHARDT E 20.01.78-DL-203326
(21.03.79) A21d-02/02

zyme-rich flour is processed for baking by adding (a) polyvalent ion salt quantity causing the same effect as increase in NaCl content, or (b) an aminated carboxy- - or 2-amino-carboxylic acid or deriv. quantity creasing the max. amylogram magnitude 1.2-2 x, or) a mixt. of polyvalent ion salt and aminated- or amino- rboxylic acid or deriv. quantity, such as to cause same fect as NaCl content increase while also increasing max. nylogram magnitude 1.2-2x.

Germination-damaged cereal flour can be processed r baking without reducing taste by salting or souring inhibit enzyme activity. 20. 1. 78 as 203326 (5pp200)

AS/ ★ D11 39272B/21 ★DT 2751-078
ual container for pasty foodstuff e.g. mustard mayonnaise - omprises two plastics, communicating bags mounted on a plastics, reakable base
BLASY L 15.11.77-DT-751078
A92 Q34 (17.05.79) B65d-85/70

omposite container assembly for flowable, especially asty materials e.g. mustard, mayonnaise, or finely ivided solids, comprises 2 containers such as bags, achets or pouches, with deformable walls, which communicate by means of a flexible connecting duct.

Containers and connecting duct are arranged upon a igid base plate designed to fracture near the connecting uct. The base plate doubles as the underside of the duct. he walls of containers and duct are made of plastics ilm e.g. polyethylene or polypropylene. The base plate s made of polystyrene. 15.11.77 as 751078 (11pp267).

OHN/ ★ D11 39292B/21 ★DT 2751-263
aking plate set for crisp pastry - has bosses on surface and notches n sides for steam escape control
HOHN K 14.11.77-DT-751263
(17.05.79) A21b-03/13

A set of baking plates for pastry such as waffles and crackers consists of an upper and a lower plate each with two sides. The baking surfaces have raised bosses in an irregular pattern. The sides have many tapering notches, starting at their upper edges.

The bosses prevent too fast an escape of the water vapour. The side notches allow the steam to be released. The result is a more uniformly baked pastry of crisp consistency. 14.11.77 as 751263 (11pp39).

ZANE/ ★ D11 B/21 ★IT 1029-028
Capillary drying of food pastes - by successive evaporation and cooling to eliminate most of the moisture
ZANETTI P 13.01.75-IT-041507
(10.03.79) A21c

HETO ★ D11 40055B/21 ★SU -615-913
Well-shaped macaroni products from wheat - are prepd. by adding sodium alginate, calcium gluconate or lactate and potash
HETEROORG CPDS AS USSR 23.09.76-SU-407852
(19.06.78) A23l-01/16

Macaroni products are made from flour with various binding additives. Products of improved quality are made from flour and the following additives (wt.%): Na alginate 0.3-2.5, Ca gluconate or lactate 0.2-1.2, potash 0.2-0.8, and the remainder is flour.

Chimirov, Yu.I., Braudo, E.E., Tolstoguzov, V.B.
Bul. 27/25.7.78. 23.9.76. as 407852 (2pp835)

MEIP ★ D11 40372B/21 ★US 4152-976
Applying topping material, e.g. cheese to pizza - by grating cheese and discharging weighed portion via chute with movable shroud
MEIJI NYUGYO KK 02.07.76-JA-U87612
(08.05.79) A21c-09/04

Appts. for applying e.g. cheese topping to pizza crusts is mounted above a conveyor which carries the crusts beneath a station which includes a stop plate which temporarily halts a crust. A guide tube is then lowered to surround the crust and a predetermined weight of grated cheese is discharged onto the crust via a rotating blade to distribute the topping evenly. The topped crust is then released. The charge of topping is prepd. by grating cheese and feeding it into a weighing cell via a conveyor which halts when the predetermined weight has accumulated in the cell.

The guide tube ensures that all the topping is applied to the pizza. 26.6.77 as 811443 (9pp 295)

D12 : MEAT ; FISH PROCESSING

SEBS- ★ D12 39020B/21 ★BE -873-547
Domestic wax melting installation - for depilation of hides etc., uses cheap throwaway filter to obviate cleaning
SEB SA 21.02.78-FR-004897
A96 (16.05.79) A22c B01d

A heated tank is used to melt both fresh and recycled wax. The molten wax is delivered via a filter which removes hairs from the wax. The filter now comprises a removable filter element made of lightweight flexible material which is permeable to hot molten wax. The material can ithstand a temp. of at least 120°C. Once removed, the element is disposable and replaced by a new one

The filter material is pref. composed of unwoven synthetic fibres, partic. polyester fibres thermally bonded together. Alternatively, the material can be a woven fabric In either case, the element pref. takes the form of a box which is collapsible for transport and storage. When erected, the box element pref. fits inside the melting tank as a liner.

Used in filtering hairs from recycled wax in a depilation installation, esp. a small scale installation for domestic use. Throw-away, inexpensive filter element obviates diff-

ult cleaning operation involved in re-using elements.
.1.79 as 873547 (12pp448)

HR- ★ D12 39045B/21 ★DL-134-476
at product filler spout - with curved outer surface of inner tube
ming annular chamber and slot
VEB NAHRUNGSGUTERMA 28.12.77-DL-202987
Q31 (07.03.79) A22c-11/02 B65b-39

filler spout for the extrusion of reconstituted meat
oducts with an addition of synthetic albumin fibres or of
usage meat with a skin of synthetic albumin consists
an inner tube with a curved outer surface which can
closed. The outer tube has several tangential inlets
o a chamber which is formed by the S-shaped contours
the inner tube, terminating in a narrower annular slot
wards the conical mouthpiece.

This results in a good alignment of the fibre filling.
e spout is easy to clean and is usable for a wide variety
food products. 28.12.77 as 202987 (8pp39)

S/ ★ D12 39145B/21 ★DL-134-837
d paste filling machine - with mincer and compactor filling
rnate cylinders without air access
DEISENROTH R 07.03.78-DL-204004
(28.03.79) A22c-11

filling device for food pastes, such as minced meat
ods, consists of a chopping device which discharges
rectly in a compressing station. Two filler cylinders are
ovided, one of which is filled as the other is emptied
a piston into a sausage skin or tin.

This eliminates the risk of injuries and prevents the
cess of air to the food. Losses of food prods. by spill-
e are cut out. 7.3.78 as 204004 (7pp39)

YN/ D12 34990A/20 =DS 2756-347
ractor for cloaca of poultry - has accurately aligned, knife-
ntering pin preventing damage to carcass or entrails
MEYN P 24.01.77-NL-000677 (12.01.77-NL-000233)
*(17.05.79) *BE-862-059 A22c-21/06*

machine to cut out the cloaca from poultry is fitted with
lade in the form of a hollow cylinder with a sharpened
d rim. The blade is supported on a hollow shaft which
s at the end a centring pin. This pin can be introduced
o the anus of a chicken which travels suspended from an
erhead rail. The cylindrical blade is fitted with a spiral
ot in which a radial pin of the hollow shaft slides. This
sures that on impact the blade is advanced at a high
eed centrally to the pin and cuts out the cloaca.

This is a simple device which requires neither vacuum
r compressed air. 17.12.77 as 756347(12pp39)

MC- ★ D12 B/21 ★IT 1029-077
ro-massaging of boiled ham
CGM COST MECC SNC 03.02.75-IT-042503
(10.03.79) A22c

OV- ★ D12 B/21 ★IT 1029-086
chine for cleaning external surfaces of shellfish
NUOVA ITALDRACHE 11.04.75-IT-044006
(10.03.79) A01r

E/ ★ D12 B/21 ★IT 1029-110
k and ham pieces packaging appts.
PEDERINI O 03.03.75-IT-046823
Q31 (10.03.79) B65b

E= ★ D12 40051B/21 ★SU-615-909
at-feeder for processing machine - has base plate at head of
chine, which is hinged, to enable body to rotate oppositely to
d screw
LENGD MEAT IND ASSO 28.06.76-SU-387229
(16.06.78) A22c-17

at-feeder for a machine in which the meat is processed
nprises a body contg. a screw, a drive and trans-
ssion unit. Raw materials of different consistencies
fed in uniformly by providing a base, fastened to the
d of the machine by means of a hinged attachment.
e screw is mounted rigidly on this base, with the body
o mounted on the base so that it can rotate in a direction opposite to that in which the screw turns. The hinged attachment consists of a brake, a toothed clutch, with the rotational axis passing through the base and the head of the machine.

Lempert, E.N., Bul. 27/25.7.78. 28.6.76. as 387229 (4pp29)

UMEA= ★ D12 40052B/21 ★SU-615-910
Two/stage electrical contact cooking of hams - with direct contact between thick end and electrodes in first stage for more uniform heating
UKR MEAT DAIRY IND 02.08.76-SU-389354
(16.06.78) A23b-04

A.C is passed through hams immersed in electrolyte soln. in a dielectric bath. For more uniform heating and improvement in quality cooking is carried out in two stages, the first with 100-1000 A/m² current when the electrodes contact the thick part of the hams.

After the internal temp. reaches 35-40°C, second stage heating is carried out with 400-500 A/m² current passed through the electrolyte until the internal temp. reaches 70-72°C.

The total process time for a 7-8 kg. ham is 50 min. using 0.5% NaCl soln. with an initial temp. of 37°C and a current density of 1000 A/m². Process time and power consumption are reduced by 20-30%.

Bunke, E.K., Galushchenko, V.A., Rubanik, V.V. Bul. 27/25.7.78. 2.8.76. as 389354 (2pp1358)

UMEA= ★ D12 40053B/21 ★SU-615-911
Electro-cooking hams in electrolyte bath - by reducing level after upper narrow end has reached cooking temp. for more uniform heating
UKR MEAT DAIRY IND 12.07.76-SU-390189
(16.06.78) A23b-04/02

Hams are placed in a dielectric tank contg. electrolyte soln. between electrodes and an a.c. is passed. To ensure uniform heating and improved quality, after a temp. of 70-72°C has been reached in the upper narrower end of the hams, the electrolyte level is reduced to the wider part. Treatment is carried out at 200-400 V/m and 300-600 A/m².

In an example, for a ham weighing 7-8 kg. the upper end temp. reaches 72°C after 20 min. in 0.5% NaCl soln. on treatment with 400 V/m and 600 A/m² a.c. After reducing the level, the heating is continued until the ham centre temp. reaches 72°C, the whole process requiring 45 min.

Bunke, E.K., Galushchenko, V.A., Rubanik, V.V. Bul. 27/25.7.78. 12.7.76. as 390189 (2pp1358)

KUPO= ★ D12 40188B/21 ★SU-616-190
Bags for filling with sausage meat product - formed by longitudinal welding of heat sealable strip, filling with product and pinch-sealing to form bag
KAUN POLY 23.06.76-SU-378120
A35 Q31 (A92) (11.07.78) A22c-11 B65b-09

Device for making, filling, and sealing packets made from heat-sealable strip material (for packing viscous and plastic materials in the food, meat-dairy, chemical, etc. industries) comprises a bag-former, tube with elastic conical tip at the lower end, and mechanism for longitudinally welding the plastic tube and sealing the ends of the packets. The packing is hermetic and pulsation of pressure in the product feeding line is compensated for by fitting the elastic conical tip with a corrugated collar. The strip of thermoplastic material is fed from a roll to the bag-former and the tubular bag made and continuous drawn over rollers so that it can be welded longitudinally The products being packed are sausages, and the package is treated so that individual objects are kept separate.

Paulauskas, L.A., Sipavichyus, A.Yu., Rinkyavichyus, V.M. et al. Bul. 27/25.7.78. 23.6.76. as 378120 (2pp29)

D13 : OTHER FOODSTUFFS

T/ ★ D13 39012B/21 ★BE -873-516

nk prepd. by water extn. of wood bark and sap - without washing sel between extractions

HERTTUA K 20.01.78-SF-000180

(16.05.79) A23f A23p

e extn. of bark, sap and albumum of wood, partic. of ng bark and sap of pines and junipers is carried out ng boilding water and decanting and filtering the extract d. One or several pre-charges of material are extrac- in an extn. reservoir, followed by removal of the pre- racts and extn. residues without removing the protec- e layer on the inner surface of the extn. reservoir. e procedure is repeated until a distinct red colour react on is seen in the extract, after which in later extns., the tn. is stopped when the red colour is seen and this tract is recovered.

The retention of the layer enables the colour formation ich provides an indicator which ensures uniform prod. ality. 16. 1. 79 as 873516 (6pp597)

ND- ★ D13 39046B/21 ★DL -134-477

dder prodn. from animal excrement - i.e. dung or liquid manure subjecting to acidic hydrolysis and neutralising the hydrolysate

AKAD LANDWIRTSCHAFT 19.01.78-DL-203311

C03 (07.03.79) A23k-01

a new process for prodn. of fodder from animal excre- ent and liquid manure from cattle and/or pig rearing, ng (previously sepd. from urine and additional water) liquid manure is hydrolysed for 4-6 hrs. at ca 100°C ith an inorganic acid (pref. HCl in an amount of ca 1. per 100kg dry substance).

If thehydrolysate is intended for direct use as fodder, is neutralised to pH 3-4, pref. with $CaCO_3$. Hydrolysed ng intended for yeast fermentation is neutralised with e urine-water mixt. from the prim. sepn. step preceding e hydrolysis. Hydrolysed liquid manure intended for east fermentation is neutralised to pH ca 4. 5 with other asic substances. 19. 1. 78 as 203311 (8pp280)

ULS/ ★ D13 39071B/21 ★DL -134-597

creasing dry solids content of milk products - e.g. curds or cheese, heat treatment immediately before sepn. process

HULSEN U 16.12.77-DL-202681

(14.03.79) A23c-19/02

n a method for varying the dry substance content of pro- ein-contg. products (esp. curds and special types of resh cheese produced by a separatory process) produced rom thickened milk by adding pure cultures and rennet erments to the kettle milk, the thickened milk immediate -ly before the sepn process is subjected to a further heat reatment. The temp. being so chosen that a structural state is imparted to the thickened milk which (a) improves ts susceptibility to separation by altering the viscosity and (b) does not lead to flocculation or the formation of granular or sandy casein particles.

The additional temperature treatment makes the separa- tion process universally applicable to the prodn. of pro- tein-contg. products from milk. The additional heat reatment is pref. effected at 35-50°C, esp. 45-50°C. 16. 12. 77 as 202681 (9pp280)

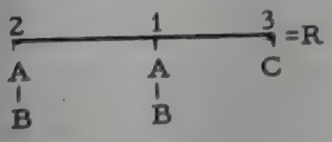
EAK ★ D13 39156B/21 ★DL -134-874

Biomass sepn. from hydrocarbon-contg. nutrient soln. - using a mixture of lignin sulphonic acid and poly:ol as surfactant

AKAD WISSENSCHAFT DDR 08.03.78-DL-204024

C03 (28.03.79) C12d-13/06

In the prodn. of purified biomass by cultivation of liquid hydrocarbons, and separation and subsequent purification of the biomass with non-polar hydrocarbons in the pres- ence of surface active substances, there is used as the surfactant compsn. a mixture of (A) lignisulphonic acid and (B) a cpd. of formula (I)



$$\begin{array}{ccccc} 2 & & 1 & & 3 \\ \vdash & - & + & - & \dashv \\ A & & A & & C \\ | & & | & & \\ B & & B & & \end{array} = R \quad (I)$$

In (I) R=aliphatic hydrocarbon with 8-20C chain, A=-CO-, $-SO_2-$, $-SO_3-$, -NH-, -O-, $-CH_2-CH_2-O-$, -CO-NH-N=CH-, $(-CH_2-)_x$ (x=1-8), -CO-NH-, or -NH-CO-NH, B=hydroxy cpd. with 3 OH groups, pref. a carbohydrate, C= charged groups, e.g. $-SO_3^-$, $-SO_4^-$, $-HPO_4^-$ or $-COO^-$, 1, 2, 3=position of the substituent groups on the hydrocarbon R, as characterised by the following R-A-B A and B in position 1 or 2, $R\genfrac{}{}{0pt}{}{A-B}{A-B}$ A and B in the 1, 2- or 2, 3-position, $R\genfrac{}{}{0pt}{}{B}{C}$ B and C in the 1, 2- or 2, 3-position, $R\genfrac{}{}{0pt}{}{C}{A-B}$ or $C-R\genfrac{}{}{0pt}{}{A-B}{A-B}$ A, B and C in the 1, 2- or 2, 3-position, or A, B in the 1, 2- or 2, 3-position and C in the 1- or 3-position.

Use of a combination of (I) and ligninsulphonic aicd enables hydrocarbons to be sepd. from the biomass with- out formation of an emulsion. 8. 3. 78 as 204024 (12pp280)

MINN D13 68886S/43 =DS 1931-505

Thermally insulated casserole with integralh -

MINNESOTA MINING CO 04.12.68-US-781157 (20.06.68-US-738431)

*Q75 +P28 (17.05.79) *US3608-627 +A47j-39/02*

An appliance for the prepn of meals, e.g. for use in air- craft galleys or railway dining car kitchens, has a therm- ally insulated chamber with pairs of rails at various levels Each rail houses a bus bar, Thermally insulated basins with a thermally insulated lid for the reception of the food are lined at the bottom with a one-piece heating element which is connected to two contact pins through the basin bottom plate. On pushing a basin along the rails the pins make contact with the bus bars and heat the food.

This facilitates the prepn. and warming up of individual portions of food. 19. 6. 69 as 931505 (+26. 6. 68, 14. 11. 68- US-762913, 775625) (7pp39)

LOVE D13 24948V/14 =DS 2357-403

Nicotine-contg. chewing gum - also contg. buffer system, used as substitute for smoking

LEO AB 16.11.72-US-307397

*P15 (D18) (17.05.79) *BE-807-414 A23g-03/30*

Chewing gum substitute for smoking comprises a chewing gum compsn., (15-80 wt. %); nicotine, (1-10 mg) as free base, a nontoxic base, a nontoxic salt, adsorbed on an inert carrier or as a complex with an insoluble cation ex- change resin; and the usual additives, esp. buffer agents (0. 5-5 wt. %), such as Na_2CO_3, $KHCO_3$, or $KHCO_3$, opt. mixed with Na_2CO_3 and/or K_2CO_3. 16. 11. 73 as 357403(7pp)

STUD D13 06375A/04 =DS 2732-103

Decaffeination of coffee - by treating coffee, water and adsorbent with carbon di:oxide by heating under pressure

STUDIENGES KOHLE MBH 14.12.76-OE-009248 (04.08.76-OE-005769)

*(17.05.79) *BE-856-955 A23f-01/10*

Process for removal of caffeine from coffee comprises treatment with damp CO_2 in a supercritical state.

In partic., a mixt. of coffee and a surface active adsor bent for caffeine is treated with CO_2 at 40-100° at press- ures 120-250 atm, in the presence of water. 15. 5. 77 as 732103(+20. 10. 76 - OE - 007806) (3pp47)

MOMI D13 08676A/05 =DS 2732-609

Automatically controlling caramel degree of liquid - by measuring light reflected from liquid surface by two different wavelength radiations (NL 23.1.78

MORINAGA & CO LTD 19.07.76-JA-085790

*+P28 (17.05.79) *DT2732-609 A23g-03/32*

In a process for the automatic supervision and control of the degree of caramelization of a fluid in the mfr. of sweets, the boiled fluid is transferred from a boiler to a caramelization vessel with a stirrer. The caramelization detector is installed in the following cooling tank; its signals are used to control the speed of a paddle mixer in- side the caramelization vessel.

This automatically supervises and controls the plant and can be used to discharge fluid at a constant level. 19. 7. 77 as 732609(8pp39)

UNIL ★ D13 39366B/21 ★DT 2849-226
Immunisation of poultry to coccidiosis - by mixing spore carrying oocysts with the feedstuff (NL 16.5.79)
UNILEVER NV 14.11.77-GB-047335
A96 B04 C03 (17.05.79) A23k-01/18 A61k-39

A method to promote growth in poultry comprises raising the poultry on a normal diet in which the food contains spore-carrying oocysts of a coccide species to which the poultry is sensitive.

Coccidiosis in poultry can be controlled. Poultry which have suffered once from coccidiosis are immune to further infection, thus the process immunises the poultry to coccidiosis. The immunising process can begin with chickens as soon as they are able to eat solid foods. 13.11.78 as 849226 (26pp1401).

LYAL/ ★ D13 39403B/21 ★FR 2400-693
Milk powder distributor for baby food - forming compacted plug for addn. of water and including counting device
LYALL R 16.08.77-GB-034363
R13 (20.04.79) A23c-09/16 G01f-11

Distribution process is intended for a measured quantity of a powdered milk prod. for babies; the appts. comprises a cylindrical measuring cylinder fitted with a movable piston.

The piston slides in the cylindrical compartment and the plunger moves in the measuring chamber. For use, the extension is forced into the mass of powder until the collar makes contact with the surface of the powder; this ensures that the sleeve is forced into the mass to a depth of twice the measuring chamber and ensures max. compaction of the plug of powder in the latter. The distributor is withdrawn with the plug of powder which is then ejected into a recipient by pressure on the operating piston against the pressure of the spring.

As the amt. of powder required varies with the age of the baby, different multiples of the predetermined dose can be used and their number is recorded on the counter wheel; the numbers 1 to 9 can be seen through the window.

The distributor can deliver an accurately measured quantity of powdered milk prod. to suit babies of different ages and record the amt. delivered on a dial. 11.8.78 as 023814 (15pp519).

FULL/ ★ D13 39410B/21 ★GB 1546-350
Application of coating to cakes - advanced along conveyor beneath blade limiting thickness of coating
FULLERTON E 26.05.77-GB-022191
(23.05.79) A23g-03/02

A flowable material is applied to the surface of cakes arranged end to end on a conveyor. A blade is positioned a predetermined height above the conveyor and a reservoir of the flowable material is maintained behind the blade. The conveyor belt is advanced and the coating of the flowable material on the cakes is limited to the predetermined height as the cakes pass beneath the blade.

Pref. the width of the reservoir is restricted by side walls and the reservoir is continuously topped up with fresh flowable material. The method and appts. are used to apply either a topping or a filling to a cake. 26.5.77 as 022191 (7pp295)

ASTR D13 06285A/03 =GB 1546-366
Ruminant feeds contg. lactosyl ureide deriv. as non-protein nitrogen - increasing beef and milk prodn. and not forming toxic amts. of ammonia in the rumen (SW 13.9.76)
ASTRA AB 19.02.75-GB-007003
*C03 E13 (23.05.79) *US4066-750 A23k-01/22 A61k-31/33 C07h-05/04*

Ureide derivs. $R_1NH\text{-}CX\text{-}NHR_2$ and their salts are new, where R_1 is lactosyl, X is O, S or NH, and R_2 is H, glycosyl or alkyl. The cpds. where X is O and R_2 is H, are prepd. by reacting a urea deriv. with a whey prod.contg. lactose at pH 1.5-3.5 and at >40°C., the pH being maintained using a strong inorganic acid.

The cpds. are incorporated into ruminant foodstuffs, pref. at 1-50 wt.% to increase beef and/or milk prodn. 19.2.76 (7pp945)

UNIL D13 77857X/42 =GB 1546-50
Green and black tea extractible with cold water - prepd by treatin ground green tea- leaves with tannase
UNILEVER LTD 05.09.75-US-610647 (17.03.75-US-559232)
*(23.05.79) *DT2610-533 A23f-03*

Prepn. of dry leaf tea extractable in cold water is descri ed. Comminuted fresh green tea leaf is contacted with tannane under conditions which are initially anaerobic and the treated leaf is fired and dried. Pref. anaerobic conditions prevail throughout the contact period.

Pref. the leaf is fermented after contacting with the tannane. The green, black or oolong tea leaf obtd. has a full complement of tea flavour and may be used in instant tea prods. 15.3.76 as 010253 Add. to 1413351 (10pp924)

TOSU- ★ D13 39427B/21 ★GB 2007-48
Instantly cookable dry soup mix - comprising dried soup stock, drie ingredients and won/ton crusts sealed in foamed polystyrene cup
TOYO SUISAN KAISHA 09.11.77-JA-134246
A97 (23.05.79) A23l-01/40

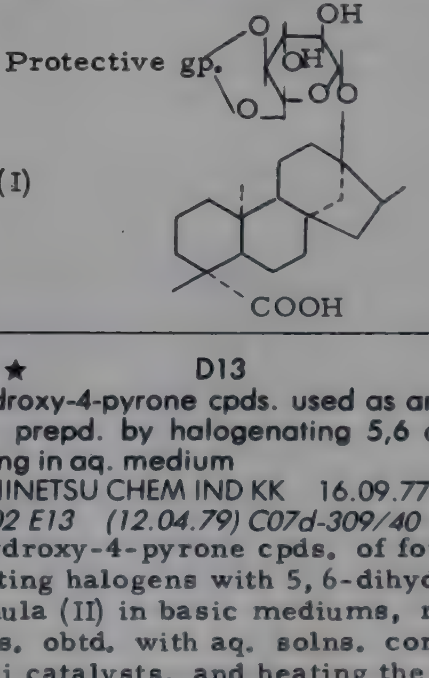
Instantaly cookable dry soup mix is prepd. as follows: powdered dried soup stock (I) is mixed with one or more other suitable dried ingredients (II), and lightly fried 'won ton' crusts (III), then the mixt.is sealed in a cup-shaped foamed polystyrene container.

Soup mix is readily made up to a liq. soup by the addn. of (pref. boiling) H_2O and allows both soup and (III) to be eaten at the same time. "Won ton" crusts consists of flour dumplings. 25.9.78 as 038062 (3pp478)

AJIN ★ D13 39606B/21 ★J5 4046-769
Intermediate for prodn. of rebaudioside-A - useful for prodn. of sweetening agent
AJINOMOTO KK 21.09.77-JA-113626
B02 E13 (12.04.79) C07h-15/24

Intermediate for the prodn. of rebaudioside A is claimed where (1) the 4,6-position of D-glucose ether-bonded to the non-sugar portion has been protected with a protective gp. for simultaneous protection of the 4,6-position of D-glucose; (2) the 2,3,4,6-position of D-glucose bonded to th 2nd and 3rd position of D-glucose ether bonded to the non-sugar portion has been protected with acyl gp., and (3) the 2,3,4,6-position of D-glucose ester-bonded to the non-sugar portion has been protected with acryl gp.

(I)

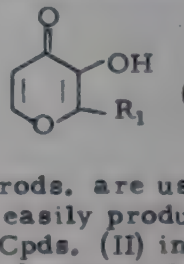


Intermediate is produced by glucose orthoesterification o a cpd. of formula I.

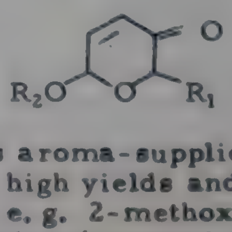
Satisfactory sweetening agent is produced from the intermediate. 21.9.77 as 113626 (6pp136)

SHIE ★ D13 39612B/21 ★J5 4046-784
3-Hydroxy-4-pyrone cpds. used as aroma suppliers - for foods and feed, prepd. by halogenating 5,6 di:hydro-5-pyrone derivs. and heating in aq. medium
SHINETSU CHEM IND KK 16.09.77-JA-111295
C02 E13 (12.04.79) C07d-309/40

3-Hydroxy-4-pyrone cpds. of formula (I) are produced by reacting halogens with 5,6-dihydro-5-pyrone derivs. of formula (II) in basic mediums, mixing the halogenated prods. obtd. with aq. solns. contg. or not contg. acid or alkali catalysts, and heating the mixts. In the formula R_1 and R_2 are H or 1-6C monovalent hydrocarbon gps.



(I)



(II)

The prods. are useful as aroma-suppliers for foods and feed are easily produced in high yields and good reproducibility. Cpds. (II) include, e.g. 2-methoxy-5,6-dihydro-5-pyrone, 2-ethoxy-5,6-dihydro-6-methyl-5-pyrone. The 5-pyrone derivs. and the basic medium are reacted with halogens at -30 to 50°C with stirring. As the halogenation is an exothermic reaction and proceeds rapidly the reactor st be cooled from the outside, and introduction of large ts. of halogens at one time must be avoided. 16. 9. 77 111295 (5pp136)

YA/ ★ D13 39640B/21 ★J5 4046-832
od preservative contg. anhydrous sodium acetate and phytic acid uppresses growth of both gram positive and negative bacteria, d does not impart an acetic acid odour to the food
HAYASHI A 19.09.77-JA-111530
E12 (E11) (13.04.79) A23l-03/34

e compsn. consists of sodium acetate and phytic acid d shows excellent antibiotic activity, without giving an etic acid odour to foods, as occurs when sodium acetate used on its own. The compsn. is prepared by combing 10-20 (pref. 15) pts. wt. of phytic acid of purity 50%, th 100 pts. wt. of anhydrous sodium acetate, and crushg the mixt. to 100-200 mesh. Usually the composition combined 0. 2-2. 0 w/w% in foods.

The compsn. is non-toxic and shows remarkable sterizing and growth-suppressing effects on both gram-posive and gram-negative germs. The phytic acid shows n improving effect on the quality of foods. 19. 9. 77 as 11530 (3pp5)

JKO ★ D13 39650B/21 ★J5 4046-849
otein paste prepn. from soybean milk - by adjusting pH, removing oluble components, regulating moisture content, heating and elling, useful as binder for sausage etc.
FUJI OIL KK 19.09.77-JA-112851
(13.04.79) A23l-01/20

he method comprises (1) adjusting pH of the bean milk repd. from soy bean or defatted soy bean to 4-5, (2) reoving soluble components as far as possible, (3) regulang its moisture content to 80-85%, (4) stirring, (5) if neessary making alkaline, (6) adjusting its pH to neutral, 7) heating uniformly at > 80 °C with fluidising so that coaglation or heat-melting is prevented and (8) standing at ormal temperature for gelling.

The heating process (7) is effected with the object of (a) iving plasticicity to the paste and good moulding property, b) sterilising it and (c) obtaining prod. with its specific dour and browning. Thus excellent protein paste can be repared efficiently and inexpensively. Further the proein paste has oleophilic property and can be used as the onding material for ham, sausage, etc. and as the materal for various foods. 19. 9. 77 as 112851 (4pp5)

KURS ★ D13 39651B/21 ★J5 4046-853
Surface treatment of milk protein fibre - includes adding alkali, poly:phosphate and melted cheese to impart taste of cheese
KURARAY KK (MNKN) 22.09.77-JA-114996
(13.04.79) A23c-19/12 A23c-23 A23j-03 A23l-01/31

The method comprises (1) treating the milk protein fibre having fibrils or multi-filament structure with aq. alkali soln. to attain the equilibrium at pH 4. 5-6. 5, (2) adding 0. 001-0. 006 pt. wt. of polyphosphate mixture selected from polyphosphate of condensation degree < 3 and polyphosphate of condensation degree > 4 respectively with large amount of water to 1 pt. wt. of the fibre (standard moisture content 66%), (3) impregnating it in the fibre and (4) kneading it at 60-80 °C with melted cheese.

The following relation must be satisfied:

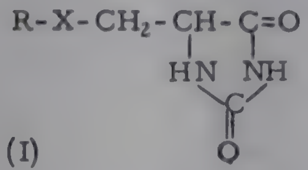
$$P \geqslant 0.02\,Y - \frac{0.007\,(X + 1.88)}{X + 1}$$

In the equation, X is the combining ratio of cheese (standard moisture content 35%) to fibre, and has the value 0. 05-1; Y is the moisture content of the prod., and is given by $Y \geqslant (0.35\,X + 0.66)/(X+1)$; and P is the combining ratio of polyphosphate mixt. to the fibre.

The novel processed protein food has the taste and flavour of cheese and meat-like texture. 22. 9. 77 as 114996 (6pp5)

HASE ★ D13 39652B/21 ★J5 4046-857
Spice with garlic-like taste and flavour - comprises reaction prod. derived from 5-alk(en yl:thiomethyl hydantoin or its sulphoxide and opt. a sugar
HASEGAWA KK 20.09.77-JA-112212
E13 (13.04.79) A23l-01/22 C07d-233/76

Spice contains either (a) the reaction prod. obtd. by heat-reacting a cpd. (I) (5-alkylthiomethyl-hydantoin, 5-alkenyl-thiomethyl-hydantoin or its sulphoxide) in the presence of a sugar in liquid medium or (b) the reaction prod. obtd. by heat-reacting the cpd. (I) at pH > 3 in liquid medium. In the formula R is 1-4C alkyl or 2-4C alkenyl and X is S or SO.



(I)

The heat-reaction product of the cpd. (I) shows the similar taste and flavor specific to vegetables of Allium. By combining it a 0. 05-5 w/w% in foods excellent garlic-like taste and flavour can be provided.

The cpd. (I) can be prepared by known methods. In the case of (a) as sugar aldose, ketose, deoxy-sugar, oligosaccharide, etc. can be used and the heat-reaction may be practiced at the presence of amino acid or the hydrolysate of fish or animal meat. As liquid medium water, alcohol or animal or vegetable oil fat can be used. In the case of (b) the heat-reaction is effected at pH > 3, pref. > 5. The heat-reaction is effected at 50-250 °C for one minute-150 hours under atmospheric pressure or the positive pressure < 150 kg/cm². 20. 9. 77 as 112212 (7pp5)

YOSH/ ★ D13 39824B/21 ★J5 4047-898
Prodn. of magnesium chloride of reduced deliquescence - by heating under reduced pressure at relatively low temp. without decomposing
YOSHIKAWA K 24.09.77-JA-114829
E33 (14.04.79) C01f-05/30

The method comprises heating magnesium chloride under a vacuum pressure or a reduced pressure at a relatively low temp. without decomposing it to obtain improved magnesium chloride of reduced deliquescence.

The relatively low temp. is 50-140 °C, the pressure is 0-400 mm Hg, and the heating period is 1-10 hours. Magnesium chloride used as a material is particulate, powdery or flaky type one.

The improved magnesium chloride can be stored for a long period without changing it to blacks. It can be used for additive for foods. 24. 9. 77 as 114829 (2pp51)

SIDA- ★ D13 B/21 ★IT 1029-306
Espresso coffee machine - with flow stabiliser at outlet from infusion filter
SIDA SPA 25.10.74-IT-005187
(10.03.79) A23f

MENE/ ★ D13 B/21 ★IT 1029-344
Confectionery prodn. plant - with pattern ejection by compressed air, after baking
MENEGHINI M 20.01.75-IT-085509
(10.03.79) A21d

NEST D13 56320X/30 =SU -615-839
De-caffeinating aq. tea and coffee extract - by contact with hydrophobic resin to adsorb caffein and soluble components
SOC PROD NESTLE SA 08.01.75-US-539535
*A97 (21.06.78) *DT2600-492 A23f-01/10*

De-caffeinating an aq. plant extract, e.g. tea or coffee, takes place by (a) contacting the extract with a hydrophobic polymer resin having dipole moment < 2 (< 0. 5) Debye, whereby caffein and other soluble components are adsorbed by the resin; (b) separating the resin and the de-caffeinated extract; (c) leaching resin contg. adhering caffein and other adhering soluble constituents with water, esp. at 65-85°C, to remove caffein; (d) washing out the caffein-free resin with a wash-soln. contg. water and organic solvent, pref. an alcohol, aldehyde or ketone having mol. wt. < 100, to remove the other soluble components; (e) removing solvent from resin by rinsing with water, and (f) contacting the washed resin with an aq. extract of a plant material, to re-adsorb caffein.
Margolis, G., Rushmore, D.F., Lui, R.T-S. Bul. 26/15. 7. 78. 7.1.76. as 310601 (5pp)

NEST D13 44677W/27 =SU -615-862

Milk-coagulating enzyme for use by the milk industry - prepd by treating poultry peptic tissue with acidifying salt soln

SOC PROD NESTLE SA 19.12.73-CH-017760

*(D16) (06.09.78) *DT2423-097 C07g-07/02*

Milk-coagulating enzyme (I) is prepd. by treating stomach-tissue, pref. peptic gland tissue, of esp. domestic poultry with an aq. salt soln., esp. of NaCl, at pH $<$ 4; separating undissolved solids and recovering a soln. contg. (I). The enzyme is used for replacing rennet, in milk industry and cheese mfr.

Activity of (I) obtd. is double that of poultry pepsin obtd. by alkaline extn. and its effects on milk equal those obtd. with calves rennet and do not impair the taste of cheese.

Orisberge, M., Pusaz, R., Sozzi, T. Bul. 26/15.7.78. 18.12.74. as 090250 (3pp)

FEED= ★ D13 40054B/21 ★SU -615-912

Ruminant feed compsn. contg. grain and urea - also includes sorbent softener which contains peat or beet pulp, to improve extrudability

FEED MIX PROD IND 11.05.76-SU-359732

C03 (16.06.78) A23k-01

Feed for ruminants comprises ground grain, urea, sorbent-softener. The blend is extruded. Extrusion is improved and nitritive value is enhanced by employing as sorbent-softener, dried, ground peat, peat-vivianite or beet bagasse. Extrusion proceeds at 100-120°C 5-10 kg/cm^2. Peat is dried to water-content 15-40% and milled to particle size 0.2-1.5 mm; peat-vivianite to 8-15% moisture and 0.1-1 mm. particle size and beet bagasse to 8-14% moisture, size 1.0-2.0 mm.

Dyakov, I.P., Lyubimov, S.P., Orlov, A.I. et al. Bul. 27/25.7.78. 11.5.76. as 359732 (5pp835)

SHOS= ★ D13 40221B/21 ★SU -616-274

Broth boiler for gelatin prodn. - has centre perforated cylinder mounted in bottom container and flow-out operated by float regulator

SHOSTKA SVEMA PROD 24.12.76-SU-434535

(19.06.78) C09h-03

Broth boiler for gelatin prodn. has body with a heating jacket, and contains a perforated cylinder, and feeding and withdrawal pipes. To prevent the fat from overflowing with the broth a container with slits is positioned rigidly in the lower part of the body. The perforated cylinder is mounted into this container so that it is free to rotate. Its lower end has cut-out notches and inside it is a float regulator. Holders and supports are fastened to the outside of the cylinder.

Voronoi, V.G., Eremenko, Yu.I., Shvets, P.K. Bul. 27/25.7.78. 24.12.76. as 434535 (3pp29)

NAPR- ★ D13 40371B/21 ★US 4152-974

Hot air corn popper - with gravity corn feed onto grill adjacent hot air supply

NAT PRESTO INDS INC 16.06.78-US-916128

(08.05.79) A23l-01/18

A corn popper comprises a horizontal grill through which hot air is blown upwardly. Corn kernels are fed onto the top of the grill to a uniform depth from a gravity hopper with a discharge throat adjacent the grill.

The action of the hot air pops the corn to produce items of lower density which are then carried upwards in the air stream while unpopped corn remains near the grill. Popped corn is lifted over a weir at the upper and of the apparatus and descends a chute onto which a flavouring is applied.

The gravity fed hopper eliminates a feed auger for corn kernels. 16.6.78 as 916128 (10pp295)

IDEK D13 52614Y/30 =US 4153-508

Gel-forming polysaccharide prepd. by Arthrobacter cultivation - contains glucose, mannose, dihydrostreptose and carboxyethyl rhamnose

IDEMITSU INDUSTRIES KK 05.04.76-JA-037224 (19.01.76-JA-004051)

*A11 B07 C03 (A96 A97 D16) (08.05.79) *DT2701-312 C12d-13/04*

A polysaccharide having a gel forming property is produced comprising glucose, mannose, dihydrostreptose and 3-O-(1'-carboxyethyl)-L-rhamnose in molar ratio 10:10:1 3:3-8, and an o-acetyl gp. in amt. 8-14 wt.% calculated as acetic acid.

Polysaccharide is prepd. by cultivating a microorganis Arthrobacter carbazolum in a medium contg. assimilable carbon and nitrogen sources with polysaccharide is forme and accumulated, which may then be recovered.

Prod. can be used in food mfr. as a thickener, tacking reagent, gelling agent, vehicle, etc.; in the medical field as a vehicle, antitumour reagent, artifical viscera etc.; in agriculture as a soil-reforming agent, manure granulating reagent, etc.; or as a sizing agent, flocculant, gelling agent for explosives, fire-fighting component, paste, water-soluble paint component, abrasive, etc. 6.10.77 as 839900 (+17.1.77-US-759627) (8pp931)

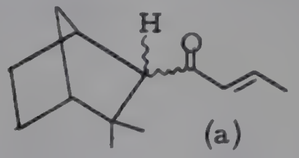
INFL D13 21476A/11 =US 4153-568

Alpha-substd.-3,3-di:methyl-2-norbornane-methanol cpds. - used for enhancing drug and food flavours etc.

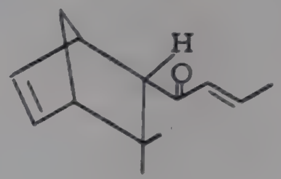
INT FLAVORS & FRAGR INC 04.02.77-US-765847

*B05 E15 +P15 (B07) (08.05.79) *US4076-853 C11d-09/04*

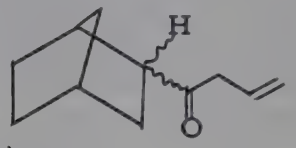
The aroma of a soap is augmented or enhanced by intimately mixing with soap chips, either (i) a norbornane deriv. chosen from cpds. of formulae (a)-(d) and their mixts. or



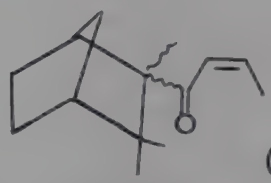
(a)



(b)



(c)



(d)

(ii) a mixt. of 2-(2-butenoyl)-3, 3-dimethyl-norbornane; 2-(2-butenoyl)-3, 3-dimethyl-norbornane; 2-(2-butenoyl)-3, 3-dimethyl-norbornane and α-allyl-3, 3-dimethyl-2-norbornanemethanol until a homogeneous compsn. is obtd. 13.12.77 as 860144 Div.ex. 4076853 (80pp910)

AMCY ★ D13 40515B/21 ★US 4153-611

5,6,7,8-Tetra:hydro-4H-cyclo-hepta-(b)-thien-4-yl-ureas - useful as animal growth promoting agents and for improving feed conversion

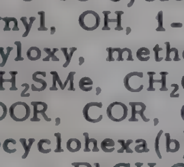
AMERICAN CYANAMID CO 05.06.78-US-912811 (25.01.74-US-436827)

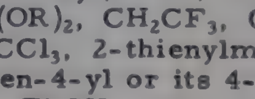
B02 C02 (08.05.79) A01n-09 C07d-333/16

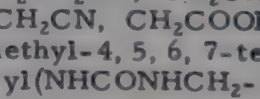
5, 6, 7, 8-Tetrahydro-4H-cyclohepta(b)thien-4-ylureas of formula (I), and their racemic mixts. in cis and trans forms, are new:

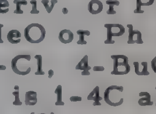
In (I), Z is (II) or (III);

(I)

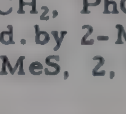








(IV)



(V)

X is O or S; Y is CH_2, CO, (IV) or (V); R_1 is H or 1-4C alkyl; R_3 is H, 1-4C alkyl, 3-6C cycloalkyl, allyl, 2-propynyl, benzyl or β-phenethyl; R_2 is H, 1-12C alkyl, 3-6C cycloalkyl, allyl, methallyl, 2-butenyl, 2-propynyl, OH, 1-6C alkoxy, allyloxy, methallyloxy, 2-butenyloxy, methoxymethyl, PhO, CH_2CH_2OH, CH_2CH_2OMe, CH_2CH_2SMe, $CH_2CH(OR)_2$, CH_2CF_3, CH_2CN, CH_2COOR, NHCOOR, COR, $COCCl_3$, 2-thienylmethyl-4, 5, 6, 7-tetrahydrocyclohexa(b)thien-4-yl or its 4-yl($NHCONHCH_2$-) deriv. or $PhCH_2CH_2$, $PhCH_2$, opt. substd. by 4-Cl or 4-MeO or Ph substd. by 2-Me-4-Br, 3- or 4-MeO, 4-EtO, 4-Cl, 4-BuO, 4-MeS, 2, 4-Me, 2, 4-Cl_2 or 4-NO_2; and R is 1-4C alkyl.

(I) are growth promoting agents for animals, which also improve feed conversion rates. Dose is 0.001-0.2 mg./kg. daily parenterally or subcutaneously or 0.001-0.08% is included in feed. 5.6.78 as 912811 (+13.12.74; 10.5.76-US-532449; 684700 (14pp1248)

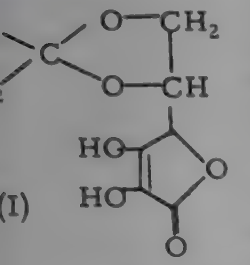
NP D13 84037A/46 =US 4153-613

corbic acid acetal and ketal derivs. - used in anti-nitrosamine mpsns.

CANADA PACKERS LTD 20.05.77-US-799093 (23.01.78-US-871510)

*E13 (08.05.79) *ZA7707-321 +C07d-317/10*

corbic acid derivs. of formula (I) and their edible salts e new:



(I)

In the formula R_1 is H or a 1-7C hydrocarbon gp. and R_2 is 6-20C alkyl or alkenyl, provided that the total no. of C atoms in R_1 and R_2 is $\geqslant$10, or R_2 is a 1-14C hydrocarbon chain substd. by a mono- or bi-cyclic hydrocarbon radical, the ring(s), being 5 or 6 membered and opt. contg. $\leqslant$3 1-7C alkyl or alkenyl substits.

The new cpds. when incorporated in meat cured or to e cured with nitrites, reduce or eliminate the formation f undesirable nitrosamines during cooking of the cured eat. 23.1.78 as 871510 (7pp990)

OFF ★ D13 40517B/21 ★US 4153-615

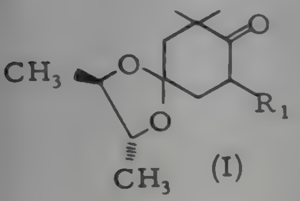
4-dioxa-spiro (4,5)decane derivs. - intermediates in stereospecific nthesis of zeaxanthin and alloxanthin

HOFFMANN-LA ROCHE INC 27.03.78-US-890173

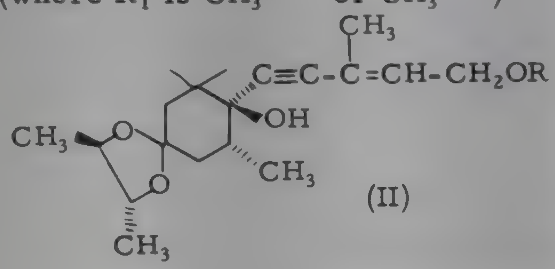
E13 (E24) (08.05.79) C07d-317/10

he following cpds. are new:

(where R_1 is CH_3 or CH_3)

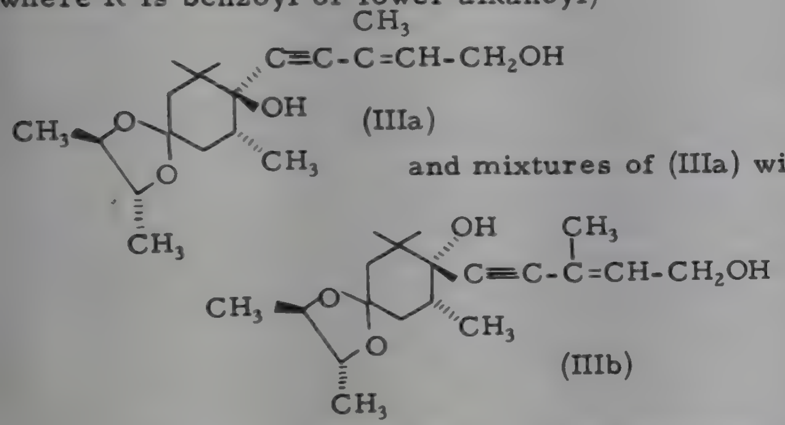


(I)



(II)

where R is benzoyl or lower alkanoyl)



(IIIa) and mixtures of (IIIa) with (IIIb)

(IIIb)

The cpds. are intermediates in stereospecific syntheses of zeaxanthin and alloxanthin, which are natural colouring materials. 27.3.78 as 890173 (8pp955)

NDV D13 58776A/33 =US 4153-732

Anticaries additives for foodstuffs - contg. a water-soluble aluminium salt and adipic acid, ascorbic acid or mixtures

INDIANA UNIVERSITY 21.02.78-US-879632 (30.01.76-US-654058)

*B05 E17 (D21 E13 E33) (08.05.79) *BE-865-636 A23g-03 A23l-01/30 +A21d-02/02*

Novel cariostatic additives for comestibles consist of an anticariogenically effective and non-toxic amt. of $\geqslant$1 soluble Al ion-contg. salt and adipic and/or ascorbic acids. The Al salt is used in an amt. of 0.01-0.10% (as Al ion) and the acid in an amt. of 0-6 wt.% (w.r.t. comestible).

Compsns. may be put in candies, bakery prods., chewing gum, beverages, fruit preparations, etc. 21.2.78 as 879632 (+4.4.77; 15.4.77; 29.11.77-US-784070; 787752; 855740) (8pp974)

PIER- ★ D13 40564B/21 ★US 4153-733

Wafers prepd. from whole cereal grains - by heating until plastic and rolling, esp. useful as cattle feed

PIERCE MICRONIZING 13.01.76-US-648769 (31.08.66-US-576353)

C03 (08.05.79) A23k-01 A23l-02/24

Flat, wafer-shaped edible food prods., having a moisture content of about 8%, a ridge pattern on the surface and a slightly puffed appearance are claimed. They are prepd. by exposing seeds of wheat, rye, barley or sorghum to infra-red radiation for 20-30 seconds., and immediately passing them through rollers having grooves forming a ridged pattern.

The prod. is more digestible than the untreated seed, is palatable, nutritious, not subject to rancidity and staleness in storage, and resistant to crumbling. It is esp. useful as cattle feed. 13.1.76 as 648769 C.i.p. 3694220 (+2.9.69; 5.5.72-US-854693; 250662) (3pp955)

ROQF D13 21793A/12 =US 4153-734

Natural yellow dye for foods - consisting of a protein-rich by/product from maize starch extn.

ROQUETTE FRERES SA 15.09.76-FR-027711

*E24 (08.05.79) *DT2703-374 A23l-01/27*

A dry powdery food material is prepd. having >85% of dry matter contg. $^1/_3$ starch and $\geqslant {}^2/_3$ proteins. Material is obtd. from the by-prod. rich in proteins, of corn starch mfr.

Powdery colouring material has 100 wt.% particles <200 microns, 95 wt.% particles <147 microns, 60 wt.% particles <100 microns. No grain of colouring material is perceived in the course of the taste test in butter contg. 1.25% of material. Compsn. has a light reflection loss $\not>$15% at 5400, 5770, 6200 and 6810 Å. Min. height of coloured phase in a decantation test after 10 mins. is 9.5 cm. Material has viscosity >500 cPs.

A colouring material is prepd. of natural origin, obtd. without the application of chemical treatments. 15.9.77 as 833610 (7pp931)

UNIS- D13 65374A/37 =US 4153-735

Lubricating binder for animal feeds - contg. a fatty acid salt, a hydrogenated lipid and an anionic polymer

UNISCOPE INC 01.11.77-US-847660

*A97 C03 (08.05.79) *BE-866-813 A23k-01*

An animal feed compsn. is prepd. for domesticated quadrupeds and poultry. Compsn. includes a lubricant-binder additive compsn. contg. a mixt. of a salt of a fatty acid, a hydrogenated lipid, and a water-soluble anionic polymer.

Additive contains 90-50 wt.% fatty acid salt, 40-1 wt.% hydrogenated lipid, and 15-0.5 wt.% anionic polymer. Total compsn. contains 0.01-0.2 wt.% additive. Pref. animal feed compsn. comprises as ingredients, cottonseed meal, wheat middlings, corn gluten meal, corn, soy bean meal, corn screenings, homing meal, meat meal, vitamins, minerals and/or their mixts.

Compsn. of finely divided particles is densified by compression into shaped forms, such as pellets. 1.11.77 as 847660 (6pp931)

LENT/ ★ D13 40565B/21 ★US 4153-736

Keeping precooked food moist in display unit - by periodically immersing in heated basting liquid then draining holding tray

LENTS C M 08.07.77-US-813954

*(08.05.79) A23l-01/**

Precooked food, e.g. corn-on-the-cob, is maintained in moist condition at serving temp. by periodically immersing the feed in a basting ray in heated liquid in a pan, draining all the liquid from food and tray after lifting from the liq. at a controlled rate sufficient to keep the food moist while preventing sogginess and splashing of liquid out of the pan.

In particular, in a glass-walled display unit, the drainage rate is such as to prevent splashing onto the walls. The ray is pref. tilted after emerging from the liquid to drain, and is rotated to the horizontal position on immersion so that the food is completely covered. 8.7.77 as 813954 (8pp1358)

GENO ★ D13 40566B/21 ★US 4153-737

Sweetening composition of di:peptide salt in propylene glycol - the di:peptide being L-aspartyl-L-phenylalanine methyl ester

GENERAL FOODS CORP 28.03.77-US-781604 (30.03.72-US-239792)

B05 E14 (08.05.79) A23l-01/23

A concentrated liquid low calorie sweetening composition comprises a mixture of propyleneglycol and at least 5 wt.% of the sodium or potassium salt of L-aspartyl-L-phenylalanine methyl ester.

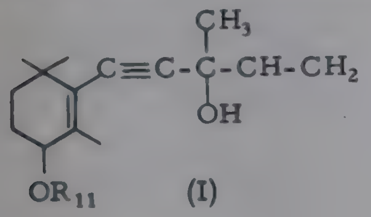
The compsn. may be used to sweeten hot or cold beverages, foodstuffs and medicines. It is refrigerator stable. 28.3.77 as 781604 (4pp476)

NATY ★ D13 40567B/21 ★US 4153-738
Instantly hydratable textured vegetable protein flakes - esp. useful as extenders in fish and poultry compsns.
NABISCO INC 10.06.76-US-694800 (18.10.74-US-516136)
(08.05.79) A23b-07/02 A23j-03

Dried flakes of laminated, textured soy protein are claimed, contg. ≥30% protein. The material is bland, of light colour, hydrates rapidly, is cohesive and does not disintegrate or hydrate, and readily accepts the flavour of food to which it is added. 10.6.76. as 694800 C.i.p. 4103034 (- pp955)

HOFF D13 97408X/52 =US 4153-805
Carotenoid inters. prepn. from 3-alkoxy cycloalk 2-enones - by Grignard reaction with alkenyne derivs.
HOFFMANN-LA ROCHE INC 09.06.75-US-585224 (15.09.76-US-723441)
*B05 E24 (08.05.79) *NL7606-160 C07c-67/24 C07c-175*

A cpd. of formula (I) (where R_{11} is lower alkanoyl) is prepd. by reacting a cpd. of formula (II: R_1 taken together with its attached O forms an ether protecting gp., removable by hydrolysis) with a lower alkanoic acid. Pref. the lower alkanoic acid is acetic acid. The cpds. are prepd. by a condensation process from either 3- or 1-pentol.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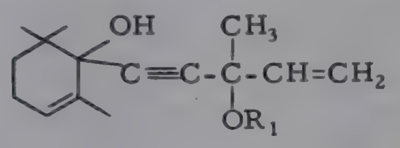
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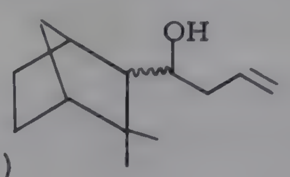
(I) are used as intermediates in the prepn. of canthaxa thin, or dinor-canthaxanthin, which are used as food colouring agents. 29.9/77 as 837774 Div.ex. 4000198; 4045476 (+15.9.76/28.4.77-US-723441; 791662)(9pp931)

INFL D13 21476A/11 =US 4153-81
Alpha-substd.-3,3-di:methyl-2-norbornane-methanol cpds. - use for enhancing drug and food flavours etc.
INT FLAVORS & FRAGR INC 04.02.77-US-765847
*B05 E15 +P15 (B07) (08.05.79) *US4076-853 C07c-33/02*

New hydroxy alkenyl norbornane derivs. are of formula (or (II):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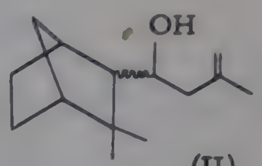

(II)

The norbornane derivs. are useful in augmenting or enhar cing the organoleptic props. of foodstuffs, chewing gums, toothpastes, medicinal prods., tobaccos, perfumes and perfumed articles. 13.12.77 as 860142 Div.ex. 4076853 (79pp910)

See Also

D14 SU 615870	D16 DT 2849183	D16 J5 4046881
D16 J5 4046899	D16 SU 616278	D23 CA 1053261
D23 DT 2840823	D23 GB 1546283	D23 SU 615869

D14: FOODSTUFF MACHINERY

BOJS/ ★ D14 B/21 ★DK 7804-313
Vegetable cleaning appts. - for cleaning leeks and similar vegetables
BOJSOE-JENSEN P 30.09.77-GB-040663
(30.04.79) A23n 29.9.78 as 004313

REIC/ ★ D14 39112B/21 ★DL -134-732
Thermal economy on sterilisation autoclave - for use in food preservation, having storage tanks for filling, hot and cold water with steam condensate heat conservation
REICHEL H J 30.12.77-DL-203023
Q31 (21.03.79) B01j-03/04 B65b-55/02

Autoclaves for food sterilisation have their filling, their hot and their cold water supplied from holding tanks. The autoclave has a heating coil for indirect heating with steam and consequent condensate recovery. The cooling coil is inthe cooling water tank. Several autoclaves can be fed from central tanks via a distribution system. In this way the energy input on each part of the cycle is reduced.

For use in food sterilisation e.g. for fish preserves, esp. in mobile factories. Reduces the the energy input by not carrying out the whole cycle in the autoclave with a single water charge. 30.12.77 as 203023 (7pp1053)

WESS ★ D14 39241B/21 ★DT 2750-787
Fruit flesh separation from skins and pips - using conical hammer head rotor revolving inside revolving screen
WESTFALIA SEPARATOR AG 14.11.77-DT-750787
(17.05.79) A23n-01

A machine for the continuous sepn. of the flesh of fruit, such as grapes, from the skins and the pips, has a conical rotor with hammerhead beaters. The beating surface of the latter describes an acute angle in the radial projection with the axis of rotation. The circumferential speed of the rotor differs by over 10% from that of a conical screen which has a separate drive.

This is a simple method of separating skins and pips from the flesh with little effort. Skins and pips are discharged with a small moisture content. 14.11.77 as 750787 (16pp39).

NITL ★ D14 39915B/21 ★J5 4048-687
Multi-pipe membrane liq. separator - for refining, concentrating and recovering food liquids and juices
NITTO ELECTRIC IND KK 26.09.77-JA-115886
J01 (17.04.79) B01d-13 B01d-31

Porous support pipes are juxtaposed between end support plates and bolted to them with nuts. A tubular membrane for reverse osmosis or ultrafiltration is inserted into each porous pipe after assembling the unit of pipes. They are connected to each other end to end, thus forming a meandering passage for liq. flow. If one end plate is unbolted, access to the inside of the unit is possible, enabling easy cleaning and replacement of the membrane. 26.9.77 as 115886 (5pp26)

BOCC/ ★ D14 B/21 ★IT 1029-021
Vegetables peeling machine - particularly suitable for tomatoes
BOCCALATTE M 12.03.75-IT-040409
(10.03.79) A23n

DALL- ★ D14 B/21 ★IT 1029-095
Pasteurising appts. for containers holding semi liq. food prods.
DALL'ARGINE E GHIRE 09.01.75-IT-046801
(10.03.79) A23l

DALL- ★ D14 B/21 ★IT 1029-096
Continuous jar filling appts. - suitable for dense and semi-dense liquids and syrups
DALL'ARGINE E GHIRE 09.01.75-IT-046802
Q39 (10.03.79) B67d

LANZ/ ★ D14 B/21 ★IT 1029-115
Food industry appts. for cleaning metal parts
LANZONI R 10.03.75-IT-046829
P43 (10.03.79) B08b

AGA= ★ D14 40013B/21 ★SU-615-347
eat exchanger for liquid e.g. food, wine etc. thermal treatment - as coaxial cylinders forming annular chambers and rotor made as ngs placed in inner chamber
MAGARACH WINE VINES 18.03.76-SU-335529
J08 Q78 (D16) (06.06.78) F28d-11/02 F28g-01/08

he heat exchanger body contains coaxial cylinders. The ylinders form outer and inner annular chambers. A otor is placed in the inner annular chamber. The rotor s provided with knives.

To increase the efficiency, the rotor is made as rings situated along the cylinder ends. The rotor rings are connected by axial pins. Cross arms are fitted on the pins. The knives are rigidly connected to one end of the cross arm and are hinged to the other end. The heat arrier or coolant is supplied to the outer chamber and liquid to be treated is circulated through the inner chamber. The knives remove the sediment from the heat exchanging surfaces.
Zamotaev, V.V., Subbotin, V.A. Bul. 26/15.7.78. 18.3.76. as 335529 (2pp110)

WOLF- D14 40994W/25 =SU-615-840
Continuous flow food pressure cooker - with processing pressure regulated by adjustable height of cooker discharge leg
WOLFF H APPARATEBAU 07.02.74-DT-405807
*+P28 P34 (02.06.78) *BE-824-936 A47j-27/08 +B01j-03*

Raw matls. in the form of liqs. pastes and fluid solids are continuously fed under pressure, e.g. by a pump or a loading screw conveyor into a pressure cooker, cooked matls. being delivered via a vertical, counter-pressure discharge leg of which the height can be adjusted to control the pressure in the cooking space, the cooking temp. being controlled by regulation of the rate at which matls. are passed through the cooker. Pref. a signal derived from the temp. of matls. at the cooker outlet is used to control the flow rate of matls. Through the cooker used for heat processing food prods. under pressure, e.g. cooking, boiling, blanching, drying, sterilising etc. Method is continuous. Control of processing temp. and pressure is automatic. Knochenhauer, B., Knochenhauer H. Bul. 26/15.7.78. 30.1.75. as 104472 (2pp)

SHEL D14 46037W/28 =SU-615-870
Growing methane-utilising microorganisms in mixed culture - using methanol-utilising and non-methylotropic organisms, to give high yeild of high protein material
SHELL INT RES MIJ BV 07.01.74-GB-000678
*C03 H04 (D13) (06.09.78) *BE-823-623 C12d-13/06*

Methane utilising microorganisms are produced by growing organisms of the genus Methylomonoas under aerobic conditions in a liq. medium contg. assimilable sources of nitrogen and essential mineral salts, in the presence of (a) methane gas (b) $\geqslant 1$ MeOH-utilising microorganism capable of metabolising the MeOH formed during the growth of the methane-using organism; and (c) $\geqslant 1$ non-methylotropic microorganisms capable of metabolising the organic cpds. formed by the methane- and/or methanol-using microorganisms.

The mixed culture has a synergistic effect on the rate of growth and yield of microorganisms, which are single-celled proteins useful as a high-protein food supplement for human or animal consumption.
Harrison, D.E.F., Harwood, J.H., Herbert, B.N. Bul. 26/15.7.78. 20.12.74. as 090249 (8pp)

TSIR/ ★ D14 40056B/21 ★SU-615-914
Garlic heads splitting apparatus - includes upper smooth and lower corrugated converging conveyor belts having adjustable gap sepn.
TSIRULNIKOV A V 21.12.76-SU-432768
(08.06.78) A23n-07

The apparatus consists of a hopper and converging upper and lower conveyor belts. The upper belt has a smooth working surface and is mounted on pillars, one of which is spring-loaded while the other is vertically movable. The lower belt has corrugations, pref. in herring-bone arrangement. The arrangement reduces damage to the bulbs.
Tsirulnikov, A.V. Bul. 27/25.7.78. 21.12.76. as 2432768 (2pp1358)

MAGN- ★ D14 40373B/21 ★US 4152-97
Peeling cherries or tomatoes by beds of contra rotating rolls - wi horizontal reciprocation of beds to advance fruit
ESTATE MAGNUSON R M 05.12.77-US-857383
(08.05.79) A23n-15/02

Fruits are peeled by beds of horizontal contrarotating rol which form peeling nips to pull the peel from the fruit. The appts. includes typically three similar beds attached to a common frame which is reciprocated horizontally. The beds which are staggered vertically are serially posi tioned so that fruit falls from the upstream bed onto the second and then third beds before it is discharged.

The advancement of fruit from bed to bed is accomplis ed by the horizontal reciprocation of the beds by the fram This action also drives the rolls via a system of rack and pinions.

Appts. removes the peel from cherries, tomatoes or similar fruit. The vertical spacing between successive beds breaks up any clumps of fruit as it passes through th appts. 5.12.77 as 857383 (6pp295)

HERZ/ ★ D14 40398B/21 ★US 4153-15
Tea bag on string - with pressure sensitive adhesive coated tag o other end for attaching to cup exterior
HERZOG M 20.03.78-US-888163
Q34 (08.05.79) A23f-01/08 B65d-85/70

A tea bag is attached to one end of a string with a tag at the other end. The tag is coated on one side with pressur sensitive adhesive with a removable cover paper so that it can be attached to the outside of a tea cup while the tea infuses.

The tag pref. has a folded flap into which the tea bag can be drawn by sliding the string through the flap after de taching the tag from the cup side so that the bag can be squeezed into the cup, this facilitating making a second or third cup of tear from the one bag. 20.3.78 as 888163 (3pp1358)

NEIE/ ★ D14 40418B/21 ★US 4153-376
Hydraulically powered rotating feed auger for hopper - e.g. fo grain with twin cylinders and rotary hydraulic valve
NEIER B R 21.09.77-US-835316
(08.05.79) A23n-17 B01f-07/08

An auger for feed is rotated by a crank connected to a pai of double acting hydraulic cylinders. A rotating valve is synchronised with the auger and connects high and low pressure supplies tothe cylinders alternately to provides rotation of the crank.

The valve comprises a rotor with a V barrier connecte to the high pressure supply while the remainder of the rot- or is connected to the low pressure. The V subtends an angle of 90-180° and the ports of the cylinders are staggered at 90° intervals round the valve body. Longitudinal bores in the rotor connect it with the high and low pressure conduits.

The auger is used to churn up feed materials in a hopper. It may be used with drain, food supplements, silage or molasses. The hydraulic cylinders operate directly on the crank of the auger and eliminate the need for intermediate chains or drives. 21.9.77 as 835316 (8pp295)

See Also

D15 US 4153546

D15: WATER TREATMENT

BOHN/ ★ D15 39027B/21 ★BE-873-616
Installation for treating water by activated sludge process - with two separate activation basins with intermediate decantation
BOHNKE B 28.01.78-DT-803759
(16.05.79) C02c

The installation comprises (a) an activation basin which receives the water for aeration at max. charge; (v) an intermediate decantation appts. for sepg. the biomass or biocoenose from (a) and (c) which is recycled to (a) and/or introduced into a sludge treatment appts; (c) a 2nd activation basin which receives liquor from (b) and operates at a low charge and (d) a later decantation appts. which separates the sludge from (c), which is recycled to (c) and/or introduced into a sludge treatment appts. Stage (a) is arranged to partly eliminate the difficultly decomposable carbon cpds. Stage (c) uses oxygen and is to complete (a) above and decompose the nitrogen cpds. The NH_3 formed is such that it neutralises a large part of the excess CO_2 formed in (a).

The installation is esp. suitable for effluent contg. difficultly decomposable carbon cpds., but stage (a) is readily adaptable to different effluents. The sludge obtd. separates readily and the energy expenditure at the activation stages is surprisingly low. 22.1.79 as 873216 (16pp597)

HOPP/ ★ D15 39084B/21 ★DL-134-636
Purifying laundry waste waters - by precipitating ortho-phosphate(s) and part detergents, foaming out residual detergent and absorbing foam in pptn. sludge
HOPPE H 27.12.77-DL-202955
(14.03.79) C02c-05/02

Laundry- and detergent mfg. waste water processing comprises (1) removing the ortho-phosphates and a part of detergents with standard $Al_2(SO_4)_3$ or $Ca(OH)_2$ or with Solvay NH_3-soda process waste liq. as precipitants and flocculants, (2) foaming out the residual detergents by blowing in air or gas in a column and pref. (3) using the pptn. sludge of 1st step as adsorbent for the broken foam obtd. in 2nd step.

The processed waste water can be charged to the official drainage system. 98% orthophosphates and 60% detergent can be removed in 1st step. Orthophosphate concn. can be finally reduced, e.g. from 100-120 mg/l to 2 mg/l, and detergent concn. from 100-150 mg/l to 10 mg/l. 27.12.77 as 202955 (6pp200)

PROJ- ★ D15 39094B/21 ★DL-134-655
Electrolytic chlorine gas generator - produces constant gas supply by keeping chloride ion activity constant
PROJEK WASSERWIRTS 27.09.76-DL-200771
E36 J03 (14.03.79) C02b-01/36 C25b-01/26

A Cl_2 generator for the sterilisation of drinking, domestic and waste water uses as the electrolyte in the electrolytic cell a mixt. of hydrochloric acid and metal chloride salts. As electrolysis progresses, the sediment of metal chlorides goes into soln. by the onset of the equilibrium of soln. Cl_2 is produced constantly depending on the chosen applied cell voltage as a result of the constant chloride ion activity.

This results in a period of several weeks where the generator produces a steady stream of Cl_2 without requiring any maintenance. 27.9.76 as 200771 (10pp39)

WASS- ★ D15 39108B/21 ★DL-134-727
Removal of particulate carbon adsorbent from water filter - using air activation and pump to remove adsorbent for reactivation
INST WASSERWIRTSCHA 16.01.78-DL-203222
J01 (21.03.79) B01d-23/20

An activated carbon mixture is removed from open or closed filters in water treatment plants by backflushing the carbon to a pump. The adsorbent is then pumped out.

The pump can be of a submersible type and moved from one filter to another. Alternatively the suction side of a stationary pump can be connnected to a pipe immediately over the filter base. The purge line can form part of the mobile pump arrangement.

For use on activated carbon filters for water preparation to remove odours, tastes etc. Removes the need for high manual labour when changing adsorbent in such filte 16.1.78 as 203222 (7pp1053)

PASE D15 32823V/18 =DS 2249-60
Improving sewage sludge drying - using polyelectrolyti flocculating agent and reduced ash quantity
PASSAVANTW MICHELBACHER 10.10.72-DT-249607
*(17.05.79) *DT2249-607 +B01d-37/02*

In a system for the dewatering of organic sludge, such as sewage sludge, a filtering aid (ash) is first added in a mixer. A pump then passes the mixture through two non-return valves to a filter press. Between the pump and the downstream valve, a polyelectrolyte (polyacrylamide, polyacrylate or methacrylonitrile) is added as a flocculan The pref. rate is 0.5 to 2(1) pts. wt. for one pt. wt. of sludge (10-200g (50g) per m^3). 10.10.72 as 249607(4pp39)

GEWK D15 32890V/18 =DS 2251-442
Electrolytic detoxication of cyanide using V4A anode - and adding copper salt in small amt to prevent electrolytic dissolution of anode, for economy
GEW KERAMCHEMIE 20.10.72-DT-251442
*J03 P35 (17.05.79) *DT2251-442 A62d-03*

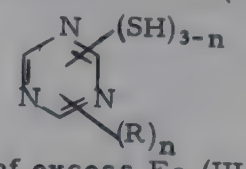
Electrolytic removal of cyanide from continuously flowing or static water systems comprises addn. of a soluble Cu^{2+} salt, (50 - 150, esp. 100 mg Cu^{2+}/dm^3), followed by electrolysis with stainless steel anode, e.g. using 2.3V and 100A for 6-7 hr. 20.10.72 as 251442(2pp47)

PASE D15 36075W/22 =DS 2356-082
Bar screen collected material dewatered - by pressure or friction on rake and during passage to disposal conveyor
PASSAVANTW MICHELBACHER 09.11.73-DT-356082
*(17.05.79) *DT2356-082 C02c-01/22*

Material collected from a bar screen by means of a scoop, is lifted clear of the screen and a press force is applied to it, for example by a hinged plate. This presses the material against a springloaded counter plate so that the material is dewatered thereby and moved off the scoop. When the scoop moves away for the next cycle, the counter plate moves the material over a chute to a conveyor.

This combines the dewatering with the clearing operation and is independent of size or output of the plant. 9.11.73 as 356082(9pp39)

DEGS D15 23493A/13 =DS 2642-238
Copper pptn. from solns. contg. chelating agent - using mercaptotriazine precipitant in presence of ferric ions
DEUTSCHE GOLD & SILBER 20.09.76-DT-642238
*E32 M13 (E13) (17.05.79) *DT2642-238 C01g-03 C02c-05/02*



Removal of Cu(II) ions from waste water or aq. solns. contg. EDTA and/or diethylenetriaminepentaacetic acid and/or their salts as complexing agents, is effected by addn. of triazolethiols of formula (I) (or their soluble salts) in the presence of excess Fe (III) ions, (pref. 10-200 mole % excess), at pH 4-10, followed by sepn. of the ppt. In (I) n is 0-2; and R is H, 1-3 C alkyl, $NR_\gamma R_2$ or OR_3, where R_1 to R_3 are each 1-6 C alkyl of Ph. 20.6.76 as 642238(5pp47)

BEST- ★ D15 39180B/21 ★DT 2750-194
Bar screen garbage bunker - with dewatering trough chain conveyor and distributor drum for disintegrator
MASCH FAB BESTA 10.11.77-DT-750194
(17.05.79) C02c-01/22

Material collected on the bar screens of effluent and sewage plant is stored in an elongated bunker with a trough chain conveyor and water drainage along the bunker bottom. At the discharge end, this conveyor is surmounted by a distributor drum inside the bunker which is driven in the same direction as the conveyor.

Larger amts. of collected material can thus be stored d discharged to a disintegrator in a uniform stream in dewatered state prior to combustion or composting. .11.77 as 750194 (14pp39).

RIH ★ D15 39202B/21 ★DT 2750-429

adioactively contaminated sewage treated by concn. and decay - two tanks operated alternately in optimised cycle

FRIESEKE & HOEPFNER GMBH 11.11.77-DT-750429

K07 (17.05.79) G21f-09/04

. method of treating radioactive liquid effluent, esp. from ospital toilet facilities where isotopes have been used, s as follows. The liquid effluent is stored at raised temp. n a tank and air is bubbled through the tank to become ighly saturated with water; this air is then condensed, the ondensate is monitored with a radiation detector and discharged to the drainage system, and the residual air is assed through a filter or washing unit, then also monitored with a radiation detector and discharged to atmosphere.

When this process has continued sufficiently for a specific radiation level in the tank to be reached the process s switched over to a second tank and repeated there. The volumes of the two tanks are so designed that the enrichment time to a specific activity level in the tank through which the air is being blown is equal to the decay time in the other, enriched tank required for the activity level to come down to an acceptable value. More specifically, the air remaining after condensate has been extracted does not pass through a filter or washing unit but is used as blowing air for the process.

By comparison with a simple decay plant, a reduction of almost 50% in capital cost is achieved. 11.11.77 as 750429 (9pp237).

HRUS/ ★ D15 39220B/21 ★DT 2750-626

Lime admixture to sewage - with radial water jets in downstream mixing pipe length

HRUSCHKA H 11.11.77-DT-750626

(17.05.79) C02c-01/18

Lime is added in the form of powder to sewage in an open channel at a point which is followed by a mixing stretch. The mixing stretch includes an enclosed pipe below the lowest possible water levelin the channel. Nozzles which are arranged in the pipe are connected to a pump for the injection of additional water from a reclarification basin.

This ensures that the lime is suspended in the sewage in extremely fine distribution and is fully dissolved. No moving parts are exposed to the abrasive action of a lime suspension and the power costs for paddle mixers have been saved. 11.11.77 as 750626 (11pp39).

BOSC ★ D15 39221B/21 ★DT 2750-658

Water softening system for dishwashers - has pilot operated spool valve between salt and ion exchanger containers

BOSCH-SIEMENS HAUS 12.11.77-DT-750658

P28 (17.05.79) A47l-15/42 C02b-01/40

A water softening system for domestic appliances such as dish washers has a pilot-operated spool valve between the salt container and the ion exchanger container. The water pressure in one fresh water pipe acting on one face of the spool urges the valve into the OFF position, and that in the second pipe moves it into the ON position where it permits brine to pass to the ion exchanger for regeneration.

This is a simple and functionally reliable method to initiate the ion exchanger regeneration. This valve has a low flow resistance in its ON position. 12.11.77 as 750658 (11pp39).

PASS- ★ D15 39231B/21 ★DT 2750-736

Multistage desalination plant - with each column divided into evaporation and condensation space with impact extractor between

PASS & CO 12.11.77-DT-750736

J01 (17.05.79) B01d-03/06 C02b-01/06

A multistage desalination plant consists of several identical columns, each consisting of a vertical pressure vessel which is divided by a horizontal partition in an upper condensation space and a lower evaporation space. The upper space is horizontally extended by an intersecting cylindrical container for the condenser tube coil. The partition has a cutout, surmounted by an impact extractor e.g. with a metal wool packing.

This plant has a simple design and requires very little floor space. The columns of each stage are not expensive to mfr.. 12.11.77 as 750736 (17pp39).

PASS- ★ D15 39235B/21 ★DT 2750-764

Evaporative desalination plant - with condensers arranged crosswise under series connected evaporators

PASS & CO 12.11.77-DT-750764

J01 (17.05.79) B01d-03/06 C02b-01/06

An evaporative desalination plant has the evaporator spaces of all columns arranged axially in one horizontal tank, with partitions having passages at the lowest point and baffle plates between the partitions. The condensators are arranged crosswise under each evaporator and are joined to them by offtake pipes with a short vertical upward and a long descending pipe section.

This simplifies the design for each column and saves floor space. The distillation throughput can be readily adjusted to varying requirements. 12.11.77 as 750764 (22pp39).

PASS- ★ D15 39236B/21 ★DT 2750-765

Evaporative desalination plant - with condensation space in each column above evaporation space in same tank

PASS & CO 12.11.77-DT-750765

J01 (17.05.79) B01d-03/06 C02b-01/06

An evaporative desalination plant consists of several identical columns, each column consisting of a vertical cylindrical pressure vessel. The condensation space of each lies directly above the evaporation space and communicated with it through a vertical tube which protrudes a certain height into the condensation space.

This has twice the distillation capacity for the same floor space, compared with a conventional plant. Each column is of simple design and easy to mfr.. Each column can be assembled and tested completely in the works. 12.11.77 as 750765 (18pp39).

REIC- ★ D15 39243B/21 ★DT 2750-789

Portable drinking water preparation package - with coarse and fine purification and desalination sections

REICHLING R & CO 14.11.77-DT-750789

(17.05.79) C02b-01

A portable drinking water preparation plant is enclosed in a standard container. It consists of a coarse and a fine purification section and a desalination section. It has a crude water inlet and outlets for the drinking water and for the pulp.

This plant is easily transported by lorries or helicopter to the required site in emergencies. It can purify surface waters or sea water to the standards required by the World Health Authority for drinking water. 14.11.77 as 750789 (20pp39).

FRES- ★ D15 39244B/21 ★DT 2750-807

Ion-selective membranes contg. siloxane in an inert carrier - for use in electrodes for measuring cation concn., for deionising water etc.

FRESENIUS E CHEM PH 14.11.77-DT-750807

A97 J01 (17.05.79) B01d-13/04 C08j-05/22 C25b-11/04

Membranes with ion-selective properties contg. as active phase molecules with hydrophilic cavities and lipophilic peripheries, in which the active phase consists of ≥1 siloxane with several -SiO- gps. in open-chain, branched or ring arrangement. The siloxane is pref. embedded in an inert carrier, e.g. opt. plasticised PVC.

Used as electrodes for measuring concn. of various cations, similar to glass membranes in pH electrodes. It is a relatively simple structure, the dimensions and configuration of which can be varied to match that of specific cations. Readily available and low cost, and very stable. 14.11.77 as 750807 (11pp195).

STEM/ ★ D15 39251B/21 ★DT 2750-897

Membrane mfr. for ultrfiltration, reversed osmosis, etc. - by embedding parallel micro:filaments in membrane material and removing by solvents

STEMME R 14.11.77-DT-750897

A88 F04 J01 (17.05.79) B01d-13/04

Organic or inorganic microfilaments having to a great extent the same diameter, are embedded in material for the formation of membrane bodies for ultrafiltration and reversed osmosis. After the formation, the microfilaments are dissolved out, leaving behind open, pore channels with smooth walls. Before or during the embedding process, the microfilaments are aligned largely parallel to each other. The preferred alignment is imparted to the microfilaments during growth by external forces such as electrical or magnetic fields, or gravitational or inertial forces.

Process provides a membrane with a wide range of applications from ultrafiltration to desalination, having uniform pores at high density in resistant membrane material, at costs of production which, taking into consideration the technical advantages, makes possible an expansion of its applications, together with improved performance in present uses. 14.11.77 as 750897 (9pp1045).

POLY- ★ D15 39310B/21 ★DT 2846-483

Agitator for biological toilet - comprises a metal rod folded to give vanes and journals

POLYPUR FORSALJNING 28.10.77-SW-012193

(17.05.79) B01f-07/06 C02c-01 C05f-03/06

A collecting vessel for a toilet effecting the biological breakdown of the excrement, and contg. a suitable mass for the breakdown, is fitted with an agitator for transfer to the container from which the resulting humus is removed. It consists of a wire structure mfd. in one piece, and extending between the opposing walls of the collector as well as vertically to its axis of rotation.

The agitator is cheap and simple to mfr., is easily installed and not only effects faultless mixing but also moves the mass in a desired direction. 25.10.78 as 846483 (10pp1045).

ASKO- ★ D15 39358B/21 ★DT 2849-013

Rotary biological filter - with horizontal Archimedean spiral designed as scoop wheel

ASKO-UPO OY (AGAA) 16.11.77-SF-003467

J01 (17.05.79) B01d-33/02 C02c-01/04

A biological filter includes a drum which rotates around a horizontal axle. The walls of the drum are designed as an Archimedean spiral which picks up a certain amount of the liquid to pass through its filling of a nutrient medium for bacteria. At the wheel hub, the water runs off purified into a tray for discharge or recycling.

This ensures a filter path long enough to give a satisfactory purification. It takes up less space than biological filter towers. 11.11.78 as 849013 (9pp39).

CARB- ★ D15 39394B/21 ★FR 2400-489

Biological purification of waste water - includes oxygenation, degradation, nitrification and denitrification steps

CARBOXYQUE FRANCAIS 17.08.77-FR-025148

(20.04.79) C02c-05/10

Waste water is treated continuously by first decanting off from sludge, then charging it with oxygen. The liq. with oxygen dissolved in it is then aerobically treated to cause degradation of the substances in it, further aerobically treated to convert nitrogenous material into nitrates, and then, after de-gassing, treated anaerobically to decompose the nitrates, free nitrogen being liberated.

The flow is regulated by analysis of the purified water, partic. w.r.t. its chemical oxygen demand. The process can be conducted under press. The biological degradation and other treatments are conducted using specific bacteria for the various stages. The bacteria used can also be adapted to other components of the treated water, e.g. S and sulphites.

The process overcomes lack of response to variations in flow rate, incapability of treating feebly charged effluents, and lack of elimination of nitrogenous cpds., these difficulties being caused by the low oxygen transfer capacity of previous systems. Installations used to effect this process are very flexible in operation. 17.8.77 as 025148 (9pp1331).

FRAN/ D15 57753X/30 #GB 1546-

Submersible vertical liquid aeration tube - having spaced, fluid fl driven turbines and venturi rings

FRANKLIN G C 03.06.74-US-475829 (23.06.76-GB-026211)

*J02 (23.05.79) *US3969-446 +B01f-03/04 B01f-05/10*

An aerator for dispersing gas in a liq. comprises an ope ended vertically mounted tubular casing within which is co-axially arranged a rotatable mixer. Gas is supplied t a region adjacent the lower end of the casing so that gas bubbles flow upwardly through the liq.

The rotatable mixer is rotated solely by the upward flow of gas bubbles and liq. through the casing. 23.6.76 026211 (7pp1363)

VITC- D15 16559Y/10 =GB 1546-4

Purifying and dispensing unit for drinking water - feeds throu valve block with purifying cartridge in bypass

VITCO PATENS AG 12.08.75-DT-535976

*+Q39 Q42 (23.05.79) *DT2535-976 +B67d-05/58*

A unit for treating and supplying drinking water comprise a valve assembly and water treatment element. The valv assembly has a body provided with a first water inlet con municating with a first water outlet and a second water in let communicating with a second water outlet. A shut-off valve is provided between the first water inlet and the fir water outlet. A constant flow control means is provided upstream or downstream of the shut-off valve. The water treatment element is arranged to receive water to be trea ed from the first outlet and to supply treated water to the second inlet for discharge from the body through the second outlet. 30.7.76 as 031914 (4pp1363)

SEGH- D15 74167W/45 =GB 1546-42

Expanded plastic packing for gas-liquid contactors - particularly i activated sludge effluent treatment plants

SEGHERS ENG NV 06.06.75-BE-829952 (06.06.75-BE-157096)

*J02 (23.05.79) *BE-829-952 C02c-01/04*

A biological tower for the degradation of waste water char ged with organic substances includes a package element consisting of a parallelepiped block made of expanded synthetic material having slots extending from one end face of the block to the opposite end face of the block. 2.6.76 as 022768 (7pp1363)

KUTS- D15 87144X/47 =GB 1546-48

Mechanical sewage sludge composting - in mixer with recycled biogenic mass charging revolving heated drum

KUTSCH-CONSULT GMBH 02.05.75-DT-519618

*(23.05.79) *DT2519-618 +C05f-09/04*

Appts. for the machine composting of sewage sludge includes a rotatable drum for receiving the material to be composted after it has been mixed outside the drum with a predetermined proportion of sludge compost which is already undergoing the composting pfocess in the drum and which is pre-mixed with the material to be composted.

The pre-mixt. is distributed into the drum in such a manner that always a smaller amt. of the pre-mixt. is absorbed by a larger quantity of sludge compost. The appts. for feeding the pre-mixt. into the drum extends away from the pre-mixt. into the interior of the drum. 26.4.76 as 016891 (11pp1363)

BRTO D15 12675Y/07 =GB 1546-516

Waste water treatment - with activated sludge using countercurrent air flow

BOC INT LTD 10.03.75-AU-078928

*(23.05.79) *ZA7506-441 +B01f-03/04 C02c-01/02*

An improvement in the method of treating liq. waste material described in GB 1446402 in which the liq. waste material is withdrawn in a stream by means of a gas lift pump which simultaneously removes dissolved CO_2 from the material. 9.3.76 as 009310 Add. to 1446402 (4pp1363)

TORA D15 06720A/04 =GB 1546-529

Membrane sepn. process - using coiled element wound onto hollow core under tension

TORAY INDS INC 29.03.77-JA-034930 (13.07.76-JA-082486)

*J01 +Q36 (23.05.79) *DT2731-398 B01d-13 B01d-31 +B65h-23/16*

A liq. sepn. module utilising semipermeable membrane sheets, comprises an arrangement of layer elements spir-y wound tightly on a mandrel. When the mandrel is rotat- relative to that part of the layer arrangement which has to be wound, and with the forward end of the layer arrangement fixed to the mandrel, a portion of the layer arngement which has not been tightly wound is forced to ge in a direction perpendicular to the surface of the er arrangement, just prior to contact being made with mandrel or with another tightly wound portion of the lay- arrangement. At the bulged portion the layer elements e partially sepd. from each other. 8.7.77 as 028768 9pp1363)

IL D15 97401X/52 =GB 1546-586

eating liq. effluents contg. calcium chloride - by treating part with lphuric acid, sepg. and drying the calcium sulphate, and mbining mother liquor with remainder giving neut. prod.

IMPERIAL CHEM INDS LTD 04.06.75-GB-024104

*E33 (23.05.79) *NL7606-002 C01f-11/46 C02c-05/02*

aCl_2 contg. liquor which is produced as a waste effluent the ammonia soda process is treated to mfr. $CaSO_4$.

The process comprises (1) reacting a portion of the effuent with H_2SO_4 to produce a slurry comprising hydrated r anhydrous $CaSO_4$ in the solid phase and a liquor comrising HCl; (2) sepg. the slurry into a moist $CaSO_4$ and a quor comprising HCl; (3) drying the moist $CaSO_4$; and (4) eacting the liquir from (2) with the balance effluent so hat it is at least partially neutralised. 11.5.76 (5pp910)

RCK ★ D15 39429B/21 ★GB 2007-520

il and water separator - comprises single vessel including oalescer and filter providing improved washing requirements

SERCK INDUSTRIES LTD 16.11.78-GB-044828 (09.11.77-GB-046554)

H03 J01 (23.05.79) B01d-17/02

eparator for removing oil and solids from water compris- s a single vessel including a coalescer and filter arranged etween the inlet for untreated water and the outlet for reated water. The coalescer may precede or follow the ilter. A further outlet is provided for coalesced oil.

By combining the coalescer and filter into a single vessel, the amt. of wash liquor required is reduced. Sepn. of residual oil from seawater in off-shore prodn. together with the removal of phenolic resins from waste water in creosote plants are the main users. 16.11.78 as 044828 (7pp1050)

HITA ★ D15 39459B/21 ★J5 4031-959

Waste water treatment esp. for suspended solids recovery - by electrodialysis to coagulate and sediment out solids

HITACHI KK 17.08.77-JA-097839

(09.03.79) C02c-05/12

Waste water i.e. the prim. treatment water contg. suspended substances to which is added an adsorbent, e.g. activated carbon, etc. is subjected to an electrodialysis treatment to accelerate the coagulating sedimentation of suspended substances present.

Method is capable of coagulating activated carbon powder on which macromolecular organic molecules are adsorbed much more effectively into suspended substances of such a size that they are easily separable in the subsequent sedimentation sepn. process. In addition, the activated carbon powder used can also be very easily sepd. and removed by a simple separator. Method is effectively applicable to the treatment of waste waters containing ionic surfactants, e.g. sodium dodecylbenzenesulphonate, etc. brighteners for plating, e.g. sodium sodium naphthalenesulphonate, etc. 17.8.77 as 097839 (6pp117)

EBAI ★ D15 39685B/21 ★J5 4047-356

Concentrating sewage sludge - using a mineral oil emulsion of cationic emulsifier

EBARA INFILCO KK 20.09.77-JA-112934

(13.04.79) C02c-03

Sewage sludge mixed with air-dissolved water is treated with a mineral oil emulsion comprising a cationic emulsifier consisting of ⩾1 of >8C long chain alkyl-contg. aliphatic mono-, di- or polyamines and rosin derivs. in an amt. of 0.1-20 wt.% of mineral oil, and a mineral oil of b.pt. >150°C, having no volatile components. Treatment is performed with violent agitation, and then sepn. of floating sludge is performed under reduced pressure while generating fine gas bubbles.

The method is capable of obtaining a highly concn. frothy sludge and of economically performing filtration, dehydration, drying, etc. with high efficiency and more econon cally. The sludge is e.g. fresh mixed sludge, excess activated sludge, etc. 20.9.77 as 112934 (4pp117)

TOAG ★ D15 39686B/21 ★J5 4047-357

Treating waste water contg. oxidisable substances - by subjecting to oxidn. treatment with hydrogen peroxide in presence of iron salt catalyst

TOA GOSEI CHEM IND LTD 22.09.77-JA-113207

(13.04.79) C02c-05/04

In the treatment of waste water contg. oxidisable substances, e.g. inorganic compounds, carbohydrates, alcohols, aldehydes, carboxylic acids, nitriles, esters, ethers, organic salts, amino acids, water-soluble polymers, surfactants, oils, fats, etc. the waste water is subjected to oxidation treatment with H_2O_2 in the presence of an Fe salt catalyst.

The desired amts. of H_2O_2 and/or Fe salt catalyst are added in a sepg. addn. method in which one or both of the H_2O_2 and Fe salt catalyst are consecutively added with the elapse of time, or are added at different positions at pH 7.0, and then after the oxidation reaction has terminated, the pH is regulated by the addition of an alkali to ppte. soluble Fe compounds which is in turn sepd. for recycling as Fe salt catalyst.

Method increases the oxidn. efficiency of the waste wate treatment system to a great extent as compared with the method in which H_2O_2 and Fe salt catalyst are added simultaneously. 22.9.77 as 113207 (7pp117)

TOAG ★ D15 39687B/21 ★J5 4047-358

Human waste treatment - by oxidising secondary water from aerobic treatment with hydrogen peroxide in presence of iron salt catalyst which is recovered

TOA GOSEI CHEM IND LTD 22.09.77-JA-113208

(13.04.79) C02c-01/40

In the treatment of human waste in which the primary treated water is first diluted and then subjected to aerobic biological treatment, or secondary treatment, the secondary treated water is oxidised with H_2O_2 in the presence of an iron salt catalyst in an amt. of 1 to 500 mg/l (as Fe) at a pH of 1.5-7 and at 0-70°C for 0.1-100 hours. The pH of the treated water from the oxidation is adjusted to 5-9 by the addition of an alkali to ppte. soluble iron salts which are sepd. by means of a coagulating sedimentation method etc. for recycling as iron salt catalyst, while the treating water so sepd. is also recucled as a diluting water for the secondary treatment.

The method in which the treated water is recycled as diluting water for the secondary treatment at a recycling rate of 10-100%, greatly contributes to the saving of fresh water used and also reduces the amt. of treated water released to the outside which causes water pollution. 22.9.77 as 113208 (5pp117)

TOXF ★ D15 39688B/21 ★J5 4047-359

Removal of radioactive isotopes from waste water - comprises treating the water with an activated carbon derived from oxidative treatment of an acrylonitrile polymer fibre

TOHO BESLON KK 22.09.77-JA-113299

A35 J01 K07 (A14) (13.04.79) C02b-01/14 C02c-05/02

Waste water contg. radioactive isotopic elements, e.g. ^{32}P, ^{131}I, ^{198}Au, ^{203}Hg, etc. discharged from medical diagnosis and treatment, etc. is treated with a material in a round, plate, or other form, having a core of fibrous activated carbon which is mfd. by subjecting an acrylonitrile polymer fibre, contg. >40 wt.% acrylonitrile, to 200-450°C oxidative treatment to endow it with a flameproofing property, and then to 600-1000°C activation treatment with water vapour and/or a chemical. It has an average fine bore radius of 10-20Å, a total fine bore vol. of 0.2-0.5 cc, and a nitrogen content of 1-15%.

The removal efficiency of radioactive isotopic waste from waste water, is >95% when the material is used. 22.9.77 as 113299 (3pp117)

MITR ★ D15 39689B/21 ★J5 4047-361
Oil-contg. waste water treatment - using a purifying column comprising crosslinked polymer e.g. polyethylene, and inorganic species, e.g. magnesium oxide
MITSUBISHI RAYON KK 22.09.77-JA-114183
A97 (13.04.79) C02c-05/02

Waste water is forcibly passed through a treating column packed with a treating compound, obtained by the procedure in which 100 wt. pts. of a bridgeable polymer, e.g. polyethylene, ethylene-propylene copolymer, ethylene-vinylacetate copolymer etc, 5-250 wt. pts. of > 1 species selected from among magnesium oxide, silica, barium sulphate, and magnesium aluminate, and a crosslinking agent, e.g. 2,5-dimethyl-2,5-(tertiary butylperoxy)hexane, etc. are mixed, reacted, and pulverised into a grain size of 50 mesh to about 1 cm of particles, in a hollow or cylindrical state, and then the coarsened waste oil particles are separated.

The method can bring about the coarsening of waste oil particles easily in a very short time, and thus the waste oil particles can easily be removed. Thus, the treatment operation is very smoothly performed. 22.9.77 as 114183 (2pp117)

NISI ★ D15 39799B/21 ★J5 4047-866
Recovering mineral acids from waste liq. contg. metal ions - from treatment of metal with mixt. of mineral- and hydrofluoric acid by organic solvent extn. after neutralisation with alkali
NISSHIN STEEL KK 22.09.77-JA-113296
(14.04.79) C02c-05/02

Mineral acids are recovered by organic solvent extn., characterised by neutralisation with alkali. The waste acids contg. metal ions exhausted from the treatment of metals using mixed acid consisting of HF and mineral acid.

Recovery of HF is 100% c.f. 30% in conventional processes. 22.9.77 as 113296 (3pp96)

MITS/ ★ D15 39800B/21 ★J5 4047-867
Treating waste chromium plating soln. - by preheating and mixing with ferrous sulphate and sodium hydroxide at elevated temp. using blowing gas contg. oxygen
MITSUHASHI M 24.09.77-JA-114828
M11 (14.04.79) C02c-05/04

Waste soln. from Cr plating is treated by mixing with $FeSO_4$ and NaOH with O_2-contg. blowing gas at elevated temp. The waste solution is preheated before admixing.

Dilution ratio of waste soln. may be reduced to one-tenth, and the conversion of chromium (VI) to ferrite and magnetite can be efficiently effected. 24.9.77 as 114828 (3pp96)

MATS/ ★ D15 39804B/21 ★J5 4047-871
Appts. for desalination of sea-water using solar energy - includes air-heating chamber, air intake conduit, vanes for imparting swell motion, spray nozzle and ducting means
MATSUURA H 24.09.77-JA-114870
(14.04.79) B01d-03 C02b-01/06

An appts. for producing fresh water from sea water, comprises (a) an air heating chamber including a transparent top wall, (b) a centrally-located air intake conduit, (c) a number of vanes fixed in the chamber for imparting a swirl motion to the air introduced into the chamber through the intake duct, (d) a spray nozzle assembly for injecting sea water in atomised spray into the swirling air, and (e) a number of ducting means for introducing the heated, humidified air into a condensation unit (11) located in deep water.

Specifically the swirling air is heated by the solar energy collected through the transparent top wall and is humidified by water vapour from the atomised spray of sea water. The water vapour is recovered when the humidified air is cooled in the condensn. unit. 24.9.77 as 114870 (11pp47)

KOBM ★ D15 39807B/21 ★J5 4047-878
Utilisation of high pressure waste liq. - e.g. from reverse osmosis systems by heating and passage through turbine
KOBE STEEL KK 21.09.77-JA-114267
J01 (14.04.79) B01d-13

The pressure energy of a high pressure waste liq. discharged from a water treating system, e.g. a system for producing fresh water from sea water, or various waste liquid treating systems, is recovered and used for actuati of a turbine. The waste liq. is heated by passing it thro a heater before entering the turbine, so that when the he ed liquid is introduced into the turbine, the pressure of t liquid is immediately lowered so that the liq. is rapidly vaporised to actuate the turbine. The vapour leaving the turbine is passed to a condenser where the vapour is liqu ified and then drained.

The heating of the pressurised liq. enables the pressu energy of the liq. to be used in the turbine effectively reg ardless of the amt. and pressure of the liq. 21.9.77 as 114267 (4pp47)

INAB/ ★ D15 39810B/21 ★J5 4047-88
Flocculant for use in waste water treatment - is prepd. by coatin bentonite with tar, e.g. coal or petroleum tar
INABA H 22.09.77-JA-114106
(14.04.79) B01d-21/ C02c-05/02*

Flocculant is obtd. by mixing tar with bentonite to increa the flocculating capacity of the bentonite for harmful subs ances such as surfactants and water-soluble high molecul substances in waste water, and also the associating force between the flocculated substances.

Typically, coal or petroleum tar is added to bentonite and is kneaded so the bentonite particles are coated with tar. The resulting bentonite is added to waste water cont a surfactant and a hydrophilic high polymer, and is stirre for a given time. Harmful components in waste water associate with bentonite to form micelles which further coagulate to form flocs. 22.9.77 as 114106 (2pp96)

AGEN ★ D15 39814B/21 ★J5 4047-887
Oil adsorbent prepd. from kapok fibre mixt. - contg. polyethylene, polypropylene or polystyrene as heat fusible polymer
AGENCY OF IND SCI TECH (IKED) 22.09.77-JA-114141
A35 J01 (A13 A17) (14.04.79) B01d-15 C02b-09/02 C02c-05/02

Oil adsorbent is prepd. by heating a mixt. of kapok fibre and thermofusible synthetic polymer, in which hydrocarbon series polymer consists of at least one of polyethylene polypropylene and polystyrene. The mould made from kapok fibre has excellent dimension stability, water repellency, and high strength.

In an example 5-100 wt. of fibrous polyethylene was added into 100 pts. by wt. of dried kapok cotton and was uniformly mixed by mixer. The resulting mixt. was extruded in the form of frieze through finishing machines and the frieze was set in a given thickness at 130-250 °C for 5-30 min. in heat-cure oven. 22.9.77 as 114141 (6pp96)

KANE D15 00578Y/01 =J7 9009-835
Silk spinning waste water treatment - by the activated sludge process and then mixing with aluminium salts
KANEBO KK 07.12.73-JA-137174
*F01 (27.04.79) *J50086-849 +C02c-01/06*

Silk-spinning waste waters are treated by the activated-sludge process and the treated waste water is then mixed with Al salts under vigorous aeration. The treated waste water has a lower COD than the water, treated by a conventional activated-sludge process.

In an example a silk-spinning waste water (pH 6.9, COD 490, colour index, 1.420) was mixed with 300 ppm activated sludge. After aeration for 4 hr. at 25° and pH 7.2, 200 ppm $Al_2(SO_4)_3$ was added and the mixt. was allowed to stand to separate the supernatant liq. and sludge. The supernatant liq. has a COD of 28 ppm and colour index 0.08. When the waste water was treated by a conventional active-sludge process, the water has a COD of 97 ppm and colour index 1.39. The colour index is log (Io/I), where Io and I are the intensities of light transmitted through the pure solvent and the test soln., respectively. 7.12.73 as 137174 C02c-1/06 (27.4.79) KANEBO KK (5pp) (J50086849)

UKEI- D15 81722X/44 =J7 9009-998
Metal recovery from waste waters contg. metal adsorbed on carbon - involves extn. with hydrocarbon solvent and treatment of organic phase with dilute acid to strip metal from carbon
UKE IND LTD 07.11.73-JA-124390
*M25 (28.04.79) *J50075-189 +C01b-31/02*

Waste waters contg. suspended heavy metal-adsorbed C are treated with a water-immiscible hydrocarbon solvent ving a lighter sp. gr. than that of water. The organic vent fraction contg. heavy metal-adsorbed C is treated h inorganic acids to separate the metal from the C and metal is recovered by conventional processing.

In an example, waste water 100 pts. contg. 8 pts. of with Ni 0.12 and V 0.19 wt.% was mixed with C_6H_6 200 s. The mixt. was allowed to stand to separate the C_6H_6 action contg. C with metals and an aq. fraction. The H_6 fraction 100, 17% H_2SO_4 830, and Na laurylalcohol lphonate 1.4 pts. were mixed and Ni and V were extd. 60°. The removal of Ni and V from C was 91.7 and 94. % resp. 7.11.73 as 124390 C01b-31/02 (28.4.79) UKE D LTD (3pp)(J50075189)

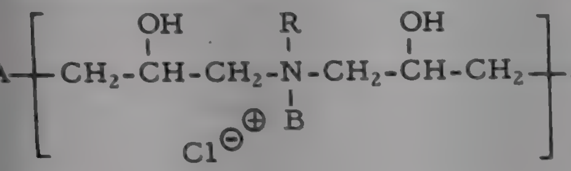
JCL D15 02061X/02 =J7 9010-039

ater soluble cationic amine-epichlorohydrin polymers - sizing gents, flocculants bactericides, adhesion promoters etc.

BUCKMAN LABS INC 14.04.75-US-568066

*A26 F09 (A97 D22) (01.05.79) *BE-832-399 A01n-09/20 C08g-73/02 D21h-03/48*

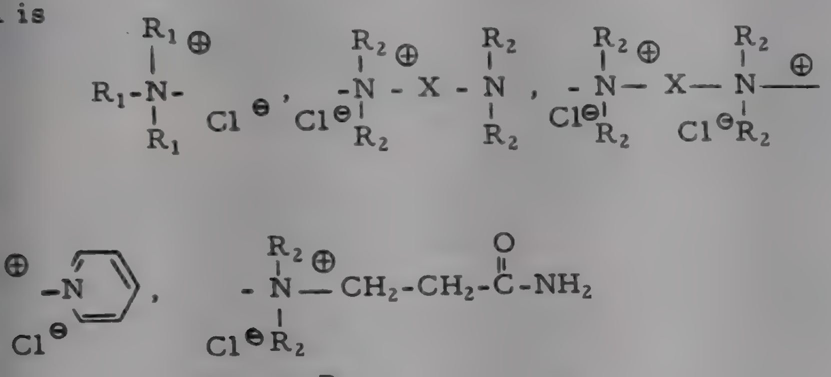
ater soluble, cationic amine-epichlorohydrin polymers formula (I):-



$$\left[CH_2-\underset{OH}{CH}-CH_2-\overset{R}{\underset{B}{N^{\oplus}}}-CH_2-\underset{OH}{CH}-CH_2 \right]-A \quad Cl^{\ominus}$$

where n is an integer,

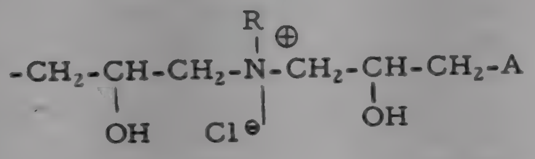
is



$$R_1-\overset{R_1}{\underset{R_1}{N^{\oplus}}}-\ Cl^{\ominus},\quad -\overset{R_2}{\underset{R_2}{N^{\oplus}}}-X-\overset{R_2}{\underset{R_2}{N}},\ Cl^{\ominus}\quad -\overset{R_2}{\underset{R_2}{N^{\oplus}}}-X-\overset{R_2}{\underset{R_2}{N^{\oplus}}}-\ Cl^{\ominus}\ Cl^{\ominus}$$

$$Cl^{\ominus},\quad -\overset{R_2}{\underset{R_2}{N^{\oplus}}}-CH_2-CH_2-\overset{O}{\overset{\|}{C}}-NH_2\ Cl^{\ominus}$$

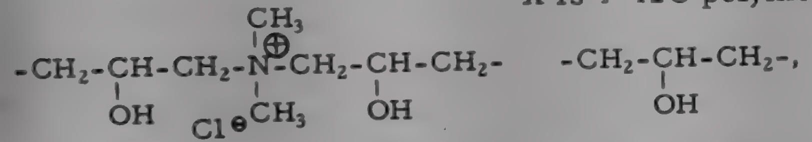
B is



$$-CH_2-\underset{OH}{CH}-CH_2-\overset{R}{N^{\oplus}}-CH_2-\underset{OH}{CH}-CH_2-A\quad Cl^{\ominus}$$

or

X is 1-12C polymethylene



$$-CH_2-\underset{OH}{CH}-CH_2-\overset{CH_3}{\underset{CH_3}{N^{\oplus}}}-CH_2-\underset{OH}{CH}-CH_2-\ Cl^{\ominus}\qquad -CH_2-\underset{OH}{CH}-CH_2-,$$

$-CH_2-CH_2-O-CH_2-CH_2-$ or $-CH_2-CH=CH-CH_2-$ R is 1-20C aliph. agp. contg. 0-2 C=C bonds, 1-6C aliph. gp. contg. ≥ 1 OH gp. alicyclic or alkanyl, and in which each R_1 is indep. 1-20C aliph. gp. contg. 0-2 C=C bonds, 1-6C aliph. gp. contg. ≥ 1 OH or Cl, alicyclic, aralkyl or aryl gp. and R_2 is 1-6C aliph. gp. are specifically for use in the paper and hardboard industry as sizing agents, for improving the draining characteristics and filler holding capacity of fibrous webs and for imparting electroconductive properties to the surface of paper.

Other claimed uses includes treatment of aqs. systems, e.g. as flocculants, bactericides, water-separation accelerators for industrial sludges adhesion promoters for water soluble adhesives and improving the fastness of dyed textiles. 13.4.76 as 041762 (clg. 14.4.75-US-568066) C08g-73/02; A01n-9/20; D21h-3/48 (1.5.79) BUCKMAN LABS INC (13pp)(J51138799)

KATA- D15 81607X/44 =J7 9010-191

Ships sewage treatment system - using coarse filtration disintegration aerated flotation and reverse osmosis

KATAYAMA CHEM WKS 12.04.75-JA-044577

*A88 J01 Q24 (02.05.79) *DT2615-933 B01d-13 B63b-29/14 C02b-01/82 C02c-05/02*

Sewage aboard ships is processed by passing through a coarse mesh filter and/or a disintegrator, suspended solids are reduced to below 1000 ppm. by aerated floatation, and the prod. is clarified by passing through a semipermeable membrane.

A closed system, reliable and lasting, compact and relatively simple construction. 12.4.75 as 044577 B01d-13/00; B63b-29/14; C02b-1/82; C02c-5/02 (2.5.79) KATAYAMA CHEM WORKS (5pp)(J51120045)

PAMF= D15 86321X/46 #J7 9010-192

Coagulating waste sludge streams by addn. of dried sludge - and smaller amts. of mineral coagulants, giving fertiliser prod.

PAMFILOV COMM WATER 22.04.75-NL-004763 (22.04.75-JA-048244)

*C04 (02.05.79) *NL7504-763 C02c-03*

A sludge waste steam is treated by coagulating the sludge by means of mineral coagulants, mechanically dehydrating the sludge, and drying the dehydrated sludge to 10-50% (10-30%) moisture content by means of a gaseous heat-carrier with an initial temp. of 600-900°C under counter-current and air-stream conditions, and adding dried sludge to the coagulation step in an amt. to give a 50-120 g/l sludge mixt.

Smaller amts. of coagulants are used. The capacity of the treatment plant is increased. The slurrgy has a low water content after dehydration. Industrial wastes or sewage can be treated. The prod. can be used as fertiliser, giving 1.5-25 x increase in yield and better soil structure. The fertiliser can be used once in 3 years at a rate of 10-15 tons/ hectare. If the sludge contains toxic components it may be burned or taken to tips. 22.4.75 as 048244 C02c-3/00 (2.5.79) PAMFILOV COMM WATER (4pp)(J51124043)

HIEJ D15 97105X/52 =J7 9010-193

Treating waste water contg. free and complexed cyanide - including decomposing free cyanide, adding ferrous salt to form ppte. and dehydrating

HITACHI PLANT ENG CONST (HITJ) 07.05.75-JA-055054

*(02.05.79) *J51130-068 C02c-05/04*

Process is for purifying, by decompsn., a waste water contg. a large amt. of free cyanide and a very small amt. of a cyanide complex cpd. difficult to be treated in a conventional art, such as waste water from fumigation of a green fruit.

The cyanide-contg. waste water is treated by: removing the free cyanide by decompsn. using e.g. an alkali-chlorine process followed by decomposing excess oxidising agent; adding a mineral acid to adjust the pH to 4-6 followed by adding a ferrous salt in an amt. of 1-10 times that necessary for the cyanide complex cpd. to form a ppte. by cohesion; and dehydrating the suspension contg. the ppte. opt. in the presence of diatomaceous earth. 7.5.75 as 055054 C02c-5/04 (2.5.79) HITACHI PLANT ENGG (3pp)(J51130068)

HIEJ D15 97106X/52 =J7 9010-194

Treating waste water contg. free and complexed cyanide - including decomposing free cyanide, adding ferrous salt to form ppte. and dehydrating

HITACHI PLANT ENG CONST (HITJ) 07.05.75-JA-055055

*(02.05.79) *J51130-069 C02c-05/04*

Process is for purifying by decompsn., a waste water contg. a large amt. of free cyanide and very small amt. of a cyanide complex cpd. difficult to be treated in a conventional art, such as waste water from fumigation of a green fruit. The cyanide-contg. waste water is treated by: decomposing it using an alkali-chlorine process followed by adding Cl_2 and raising the temp. upwards of 50°C in an alkali state or at a pH of 4-6 (with a mineral acid) to decompose the free cyanide; adding a mineral acid to make its pH 4-6 and to decompose excess oxidising agent followed by adding a ferrous salt in an amt. of 1-10 times that necessary for the amt. of the cyanide complex cpd. to ppte. by cohesion; and dehydrating the suspension contg. the ppte. opt. in the presence of diatomaceous earth. 7.5.75 as 055055 C02c-5/04 (2.5.79) HITACHI PLANT ENGG (3pp)(J51130069)

MITK D15 15001Y/09 =J7 9010-195
Liq. phase oxidn. of effluents - contg. organic substances, by copper ammonia catalyst under prescribed process conditions
MITSUI TOATSU CHEM INC 14.08.75-JA-098078
*(02.05.79) *DT2636-609 C02c-05/04*

Effluents containing organic substances are passed through a liq. phase oxidation treatment in presence of a copper catalyst and of a component, chosen from the gp. consisting of ammonia and an ammonium slat. The copper ion concentration is within 50-5000 ppm and the ammonium ion concentration is at least 5 times the copper ion concentration, at a pH-value of 6-10, a temp. of 150-300°C and a pressure of 10-1000 bar. The copper catalyst is recovered from the treat ed effluent.

The catalytic liquid phase oxidn. treatment under neutral or alkaline conditions allows inexpensive material to be used for the plant. The precipitation of the copper catalyst reduces its residual content in the effluents enough not to affect any subsequent microorganisms treatment. 14.8.75 as 098078 C02c-5/04 (2.5.79) MITSUI TOATSU CHEM INC (5pp)(J52022361)

MITK D15 15001Y/09 =J7 9010-196
Liq. phase oxidn. of effluents - contg. organic substances, by copper ammonia catalyst under prescribed process conditions
MITSUI TOATSU CHEM INC 14.08.75-JA-098080
*(02.05.79) *DT2636-609 C02c-05/04*

Effluents containing organic substances are passed through a liq. phase oxidation treatment in presence of a copper catalyst and of a component, chosen from the gp. consisting of ammonia and an ammonium salt. The copper ion concentration is within 50-5000 ppm and the ammonium ion concentration is at least 5 times the copper ion concentration, at a pH-value of 6-10, a temp. of 150-300°C and a pressure of 10-1000 bar. The copper catalyst is recovered from the treated effluent.

The catalyst liquid phase oxidn. treatment under neutral or alkaline conditions allows inexpensive materials to be used for the plant. The precipitation of the copper catalyst reduces its residual content in the effluents enough not to affect any subsequent microorganisms treatment. 14.8.75 as 098080 C02c-5/04 (2.5.79) MITSUI TOATSU CHEM INC (5pp)(J52022353)

MITK D15 35378Y/20 =J7 9010-197
Treatment of waste water contg. amino-type synthetic resin - by adjusting pH to less than 5, thus settling out the resin, then removing by neutralisation, cohesion etc.
MITSUI TOATSU CHEM INC 03.10.75-JA-118948
*A35 (A21) (02.05.79) *J52044-053 C02c-05/02 + C09j-03/16*

In an example, a urea- or melamine- formaldehyde type synthetic resin is suspended, colloidal or dissolved state is subjected to clarifying treatment by adjusting its pH to ≤5 to settle-out the amino-type synthetic resin by further condensn. and then removing the amino-type synthetic resin thus settled by neutralisation and cohesion.

In the modification, waste water contg. amino-type synthetic resin, resulting from adhesive-blending and/or adhesive-coating in prodn. of a plywood is subjected to treatment by adjusting its pH to settle-out the synthetic resin by further condensn. removing the synthetic resin thus treated by neutralisation and cohesion procedure to give clarified water which is then recycled to the adhesive-blending step and/or the adhesive-coating step. No discharge of the waste water to the outside, occurs and no accumulation of soluble COD components. 3.10.75 as 118948 C02c-5/02; C09j-3/16 (2.5.79) MITSUI TOATSU CHEM INC (3pp)(J52044053)

MARI/ ★ D15 B/21 ★IT 1029-003
Continuous flocculation appts. - for removing non-sedimenting suspensions from liquids
MARIANI I 11.03.75-IT-040015
J01 (10.03.79) B01d

FERR- ★ D15 B/21 ★IT 1029-224
Washing water purificn. in ceramics works
FERRARI E CIGARINI 08.04.75-IT-040030
L02 (10.03.79) B01d

MASS/ ★ D15 B/21 ★IT 1029
Appts. for removing oily and solid floating waste
MASSEI R 27.06.75-IT-017405
(10.03.79) C02c

MAZZ/ ★ D15 B/21 ★IT 1029-
Washing water purificn. in electroplating and ceramic industries
eliminate sulphur cpds.
MAZZON F 21.02.75-IT-085522
J01 L02 M11 (10.03.79) C02c

BRPE ★ D15 39993B/21 ★NL 7811-
Determining soluble biological cpds. in water with adsorption fil
- means of removing insolubles and analysing result
BRITISH PETROLEUM LTD 05.11.77-GB-046105
A88 H01 J04 R16 (08.05.79) G01n-31/06 G01n-33/18

A process is described for the determination of biologic
compounds in water. The water is passed through a filte
unit comprising a housing with two elements, the first
being a non polar material with a mesh preferably in the
range 1 to 10 microns and the second being a polar material with a mesh preferably in the range 0.2 to 5 micro
Insoluble solids carried inthe water and separated out at
the first filter and the biological compounds are adsorbe
at the seond. The material collected by the second filter
is then analysed quantitatively and qualitatively by a conventional process such as the amino-black colour proces

The procedure can be used for all situations where bi
-logical compounds such as proteins in water have to be
determined. 6.11.78 as 011021 (10pp1370)

LERO= ★ D15 40025B/21 ★SU -615-4
Water titration coulometric cell - with anode and cathode, the latt
in glass tube mounted vertically in anode
LENGD ROSTORGMONTAZ 14.10.76-SU-412106
J04 R16 (07.06.78) G01n-27/42

Cell for coulometric titration of water, in analytical techniques using Fischer's reagent, comprises cathode and anode chambers with platinum electrodes. Measurement precision is increased and construction is simplifie
by making the cathode chamber as a glass tube disposed inside the anode space along the cell axis. The ratio of the dias. of the two chambers is within the limits 1:8 to 1:12. Of the two indicating electrodes, the first (the anode) and the second (the cathode) are positioned togethe
with a tube for admitting the sample being titrated and a mixer. Both electrodes are positioned vertically. This means that none of the electrolyte is mixed in the cathode space because its diameter is so small compared with that of the anode chamber.

The apparatus is used for micro- and average concentrations (i.e., from parts per thousand up to several %), as in the determination of moisture in methanol, dimethylformamide, isopropyl alcohol, etc. Tabular results are reproduced in the original showing the effectiveness of the analysis carried out by the cell.
Malkin, L.Sh., Samoilenko, V.I., Nichugovskii, G.F.
Bul. 26/15.7.78. 14.10.76. as 412106 (3pp29)

MASK- ★ D15 40353B/21 ★US 4152-80
Sludge suction unit for settling basins - has spoil line means fo
connecting pump to float for withdrawing sludge from basin bottom
(SW 12.6.78)
MASKIN NA EIE AB 18.11.76-SW-012926
(08.05.79) B01d-21/24 C02c-01/36

Continually operating automatic sludge suction unit for withdrawing sludge from the bottom of a settling basin com
prises a float which is positively guided across the surface
of the liq. in the basin. An independent sludge pump is sus
pended by a cable from the float and a spoil line connected
between the sludge pump and the float withdraws sludge from the bottom of the basin. A hose connected to the float
floats on the surface of liq. in the basin and conveys the withdrawn sludge to a sludge box which may be located ashore.

The unit can be moved across the liq. surface in any direction without risk of the hose becoming entangled.
11.11.77 as 850682 (10pp67)

AL D15 81485Y/46 =US 4153-375
reasing sludge settlement rate by agitation - using alternately
ated and deflated bags suspended in sludge
COAL INDUSTRY PATENT LTD 30.04.76-GB-017684
*(08.05.79) *DT2718-418 B01f-13*

e settling rate of slurry is increased by repeatedly inflat-
g and deflating at least one portion of a device in the
irry to effect gentle agitation, and controlling fluid feed
the device during inflation and interrupting the feed to
least one portion during deflation.

The device pref. comprises inflatable containers divid-
into portions. The fluid is pref. fed to the portions in a
edetermined cycle. The total vol. of the containers pref.
mains constant during operation.

Optimum agitation is obtd. throughout the slurry.
.4.77 as 787364 (5pp1376)

NVI ★ D15 40427B/21 ★US 4153-411
ystem for drying wet sewage sludge - by mixing with heated sand
fter which dried sludge is used as fuel and sand recycled
ENVIROTECH CORP 12.04.78-US-895684
J09 Q77 (08.05.79) F27b-15

et sludge is dried using heated sand after which the dried
ludge is burned. The sand is heated using an appts. which
ncludes a burner, then delivered to a sludge drier where
is mixed with the wet sludge to dry it. The sand/sludge
ixt. is delivered to a classifier where the sand and
ludge are sepd., the sand being directed back to the sand
eater while the dried sludge is passed to the burner where
t is used as fuel.

The appts is used to dry and burn waste materials
uch as sewage sludge. The quantity of fuel required to
reat the sludge is minimised. 12.4.78 as 895684 (6pp295)

HEN/ ★ D15 40436B/21 ★US 4153-430
iq.-gas contact appts. - has processing system of moving
ompartments for gas submerged in liq. phase
CHENG C Y 09.06.76-US-694464
J02 (08.05.79) B01d-47

he appts. comprises a processing system consisting of a
o. of small compartments each contg. a mass of feed gas
nd having an opening through which a liq. is brought into
ontact with the gas to provide a gas-liq. interface. The
processing system is submerged in the liq. phase and divided into two zones, one of which is moved upwards and the
other downwards, by a moving mechanism. The upwards
and downwards motion of the two zones are coupled together through the moving mechanism so that the net forces,
i.e. buoyancy and gravity, applied to the two zones are
balanced against each other.

Used for gas absorption and desorption operations, gas sepns., removal of suspensions from gas streams and simultaneous pressurisation and depressurisation of gas streams. The upwards and downwards motions assist each other to reduce the work input needed in the process. 9.6.76 as 694464 (9pp67)

JANS/ DT5 40790A/23 =US 4153-543
Fibre separation from cellulose or paper mfr. waste water - by spraying the fibre contg. soln. against mesh allowing passage of fine fibres
JANSON B G 30.11.76-SW-013410
*F09 J01 +P43 (08.05.79) *DT2753-366 +B07b-01/04*

Fine and coarse particles suspended in liquid are sepd. in appts. which includes a vessel having liquid and air spaces, the vessel being closed except for a liquid outlet and an opening to the air space; and a spray nozzle directed upwardly to the top opening. The suspension is supplied to the nozzle and discharged through the air space towards h horizontal sieves through which the fine particles in suspension pass but the coarse particles deflected back. The upper surface of the sieve is at atmospheric pressure and is arranged to allow the fine particles and liquid to flow away. The pressure in the air space is regulated by adjusting the liquid level using an adjustable overflow.

The appts. is useful in cellulose and paper industry in extracting fibres from water. 29.11.77 as 855619 (5pp1376)

MORI/ D15 29538A/16 =US 4153-544
Activated sludge treatment of organic effluent - with sludge concn. in aeration vessel maintained at specific value related to COD lowering rate
MORINAGA ENGG KK (MORI-) 18.08.76-JA-098463
*(08.05.79) *J53025-060 C02c-01/06*

Organic waste water contg. large amts. of nitrogeneous substits. is treated by prolonged aeration in an aeration tank in which oxidn. (de)-nitrification all occur.

No excess sludge is produced and the COD (Cr) and nitrogen content is largely decreased by adjusting the dissolved O_2 content in the tank to 1.5-4.5 ppm., controlling the water temp. to 15-40°C, and maintaining the residence time of water in the tank to ≥10 days, keeping constant the activated sludge content in the tank by controlling the amt. of COD (Cr) to be removed w.r.t. equation 6 T = 33.5 x 1.058 (T-20), where T is temp. of waste water, and 6T is COD (Cr) to be removed (Kg)/ATP content in the tank (Kg)/day at T°C. Process uses only one tank. 18.8.77 as 825847 (5pp931)

REGC ★ D15 40484B/21 ★US 4153-546
Sepn of volatile solvent from soln. - in porous gas-filled matrix subjected to temp. gradient
UNIV OF CALIFORNIA 16.11.77-US-851918
J01 (D14) (08.05.79) B01d-17

A volatile solvent is sepd. from its soln. with a relatively non-volatile solute by infiltration of the soln. into a porous matrix material having ≥1% of its volume occupied by entrained gas, and maintaining a temp. difference across the matrix. The soln. becomes more concentrated at the hot side, and depeleted of slute at the cold side, and the 2 solns. are separately removed.

The process is esp. suitable for desalination of sea water, concn. of maple sugar and sepn. of alcohol from water. It uses simple appts., low temp. differences and ambient pressures. 16.11.77 as 851918 (8pp955)

MCLE/ ★ D15 40485B/21 ★US 4153-547
Removing hydrogen sulphide from well water - by treating with acidified copper sulphate and passing through neutralising filter
MCLEAN J O 06.02.78-US-875635
E36 (08.05.79) C02b-01/10

H_2S is removed by (a) conducting S-contg. water from a well, (b) acidifying a treating soln. of Cu sulphate to max. pH 4, preventing premature pptn. of Cu hydroxide, (c) introducing slight excess acidified Cu sulphate into the water (d) delivering water in a non-aerated system to a treating tank over a filter of neutralising material, (e) forming Cu sulphide and pptg. from water, (f) forming Cu hydroxide in tank or in filter from excess acidified Cu sulphate, and (g) mechanically filtering Cu sulphide and hydroxide with the neutralising mineral, obtaining S-free water from the bottom of the tank.

The treated water is palatable and odour free and contains very little (0.1-0.2 ppm.) or no Cu. 6.2.78 as 875635 (4pp91)

NALC ★ D15 40486B/21 ★US 4153-548
Treatment of waste water from electrodeposition paint process - by adding silica sol and water dispersible coagulating polymer
NALCO CHEMICAL CO 27.06.75-US-590959 (25.01.74-US-436625)
A91 M11 (08.05.79) C02b-01/20

A process for controlling pollution and contamination in the electrodeposition of paint from an aq. paint bath involves adding, per million parts waste water, including drippings and wash water, (a) 500-2,000 pts. wt. of an acidic, anionic silica sol. contg. 30-50 wt.% SiO_2; and (b) 0.5-15 pts. wt of a water-dispersible coagulating anionic or non-ionic polymer which has an average molecular wt. of ≥5,000 pref. ≥100,000 and has a linear C chain with numerous attached anionic or non-ionic gps.

The amt. of additive used is sufficient to reduce the tackiness of the paint solids in the waste water and to condition such solids so that they can be sepd. from the water. 27.6.75 as 590959 (4pp1319)

UNVO ★ D15 40491B/21 ★US 4153-556

Appts. for conditioning demineralised brackish or sea water - to remove carbon di:oxide and raise the pH to about 8

UOP INC 28.12.77-US-865144

(08.05.79) B01d-19/04

Appts. for conditioning demineralised brackish or sea water to remove CO_2 and increase its pH comprises a bed of limestone chips having an inlet tube extending downwardly through the bed with an upwardly opening entrance cone at its top. The water is sprayed downwardly through a wide-angle low pressure spray nozzle into the entrance cone, passes down the inlet tube to the bottom of the bed and then flows upwardly through the bed.

On striking the entrance cone the water films out slowly over the surface of the cone, releasing the bulk of the free CO_2. The dia. and depth of the bed is sufficient to ensure a water residence time of ≥2 mins. which results in the balance of CO_2 being converted to $CaHCO_3$ which is soluble and produces a pH of 8.

Used in conditioning demineralised brackish or sea water for storage and distribution. Economic system avoids the use of blowers, feeders and controllers. It is esp. suitable for use in remote areas for treating water in small quantities. 28.12.77 as 865144 (4pp67)

SAND/ ★ D15 40493B/21 ★US 4153-559

Appts. for magnetic treatment of water - to prevent build/up of scale in boilers etc., with magnet insulated from surrounding structure

SANDERSON C H 20.05.77-US-798854

(08.05.79) B01d-35/06

Water is treated using a device which includes a tubular casing of magnetic material surrounding an elongated magnet which is itself encased in a fluid-tight jacket of non-magnetic material. The jacket has tubular ends extending beyond the ends of the magnet.

The jacket is supported within the casing to form an annular chamber between them, by a pair of tapered elastic sleeves of non-magnetic material positioned over the opposite ends of the jacket. The ends of the jacket are flared outwardly to tightly compress the sleeves between the jacket and the casing. The tubular ends of the jacket ha apertures in them. Opposite ends of the casing are fixe to fluid fittings which telescopically support an outer tub ar casing of non-magnetic material.

The device is used to treat water to prevent the buil up of scale in an appts. which uses large amts. of water such as boilers, dish-washers, ice-machines, etc. The magnet is insulated from the surrounding structure. The annular treatment chamber is also free of obstructions that the flowing water has max. subjection to the magnet field. 20.5.77 as 798854 (6pp295)

RIED/ ★ D15 40603B/21 ★WP 7900-2

Flow control appts. for waste water oxidation ditch - comprising dam through which the water is propelled by an axial flow pump

REID J H 04.11.77-US-848705

(17.05.79) C02c-01/08 C02c-05/04

D/S: N(BR, JA) + E(CH, DT, FR, GB, LU, SW).

A closed circuit waste water operation treatment system comprises a ditch around which the waste water is propelled, dirty water being supplied to the ditch whilst a fraction of the water is fed out of the ditch to a tank wher sludge settles out. A barrier is formed across the ditch and the water is forced through ducts in the ditch by an axial flow pump incorporating an aerator. Further aerators may be incorporated in the ducts downstream of the pump.

Backing mixing of the water is prevented and the oxyge transfer is increased. The degree of oxygen transfer is easily controlled.

31.10.78 as US0131 (54pp525).

(E) ISR: US1643273; US2263534; US3865908; US3671022; US3865721; US3210053; US3206176; US3643403; US3827676; US3652061; US3555828; US3744255; US3642257; US2521396; US1900809; US996560; GB-796438; US1247542; US1286017; US3510110; US3846292; US3547814; US3994802; US3819512; US3764523; 1 Journal Reference.

D16: FERMENTATION INDUSTRY

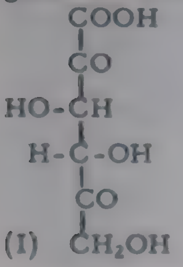
PFIZ ★ D16 38984B/21 ★BE -872-095

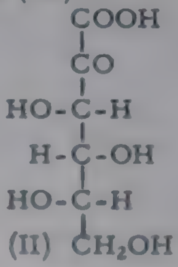
2,5-Di:keto-gluconic acid preparation - by aerobic culture of acetobacter cerinus in glucose medium and opt. reduction to 2-keto-gulonic and 2-keto-gluconic acids

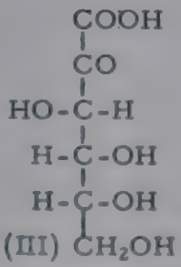
PFIZER INC 18.11.77-US-852950

B05 E17 (17.05.79) C12d

Production of 2,5-diketogluconic acid (I) by aerobic culture of Acetobacter cerinus in a glucose-contg. medium followed by recovery of (I) or selective reduction of the fermentation broth to yield 2-ketogluconic acid (II) and 2-keto-gluconic acid (III).


(I)


(II)


(III)

(I) is reduced selectively to give a mixture of (II) and (III) which may be converted to ascorbic and erythorbic acids. Present bacteria used to produce (I) produce large quantities of bronw or brown-yellow pigments as by-products which lower the purity of products. US 3790444 uses Acetobacter fragum to avoid pigment production. The present process uses Acetobacter cerinus which gives (I) in high yield without pigments. 17.11.78 as 872095 (7pp)

JAEG/ ★ D16 39018B/21 ★BE -873-544

Antiblastic immunological preparations - prepd. by in vitro cultivation of human tumour cells, sensitive to cytostatic agents and able to kill strain 929 L cells

JAEGER K 19.01.78-DT-802277

B04 (16.05.79) A61k C12k

Prodn. of antiblastic immunological preparations, comprises in vitro cultivation of human tumour cells, whose sensitivity to different cytostatic agents has been established and whose ability to kill L cells of strain 929 has been shown.

The prepn. is for the destruction of cancer cells, and may be used alone or in combination with other active agents. The tolerance is optimal when the human cells are administered in small quantities equivalent to about intra-muscular injection of 1ml of blood.

In a specifically claimed process leukemia cells are sepd. from the rest of the blood and incubated for 24 hrs. with a mitogen, which is preferably a calf blood extract, then tested against cytostatic agents and hyophilised to give a final concn. of 101 cells/ml. 17. 1. 79 as 873544 (12pp395)

S ★ D16 B/21 ★BR 7804-662
mentation process - with removal of products through suitable mbranes
YISSUM RES DEV CO 22.07.77-IL-052579
(10.04.79) C12c-11/08 C12d-03/02 19.7.78 as 004662

AK ★ D16 39087B/21 ★DL -134-639
droxylation of methylene gps. e.g. in a steroid - by incubation h cytochrome P-450 from Candida guilliermondii
AKAD WISSENSCHAFT DDR 14.12.77-DL-202596
B01 E19 (14.03.79) C07b-03 C07b-29/02 C07c-29 C07c-31/02 C07j-01 C07j-05

droxylation of CH_2 gps. pref. in alkanes, carboxylic ids and steroids, comprises reacting the substrate in . buffered emulsion with the enzyme system cytochrome -450 (A) in presence of O_2 and with addition of NADPH an NADPH-regenerating system.(A) is isolated from ndida guilliermondii.

Simple process useful in chemical and pharmaceuticals dustries esp. for prodn. of higher alcohols and specific droxylation of acids or steroids. 14. 12. 77 as 202596 pp1251)

JDA/ ★ D16 39132B/21 ★DL -134-779
ccelerating the maturing of spirits - by ultrasonic vibration of rculating fluid in presence of oak wood
DUDAR K 01.02.78-DL-203503
(21.03.79) C12h-01/16

he time required for spirits to mature is shortened by xposing them in oak wood barrels or in metal barrels in resence of oak wood staves to an ultrasonic sound field t a frequency of 20-50 kHz (35 kHz) and a sound intensity f 0.5 W/cm². The specific wood surface should vary rom 20-40 cm²/litre depending on the type of spirit. The uid should be circulated by a pump 3 to 4-times per hour nd the total duration of the ultrasonic action of the ultrasnic action should be 30 to 60 min.

This results in great time savings in the maturing process of spirits which normally takes several months to everal years. The quality of the resulting spirits is at east equal to the naturally matured spirits. 1. 2. 78 as 03503 (10pp39)

CSP- D16 75625S/48 =DS 2121-994
acterial sensitivity testing to antibiotics and chemotherapeutics by - ight intensity measurements
SCIENCE SPECTRUM (SCI -) 04.05.70-US-034243
*B04 +R16 (17.05.79) *DT2121-994 C12k-01/06*

Process for determining the sensitivity of bacterial strins to antibiotic and/or chemotherapeutic agents compises addn. of a standard sample of the culture medium o a test soln. contg. antibiotic or chemotherapeutic gent in known amounts, in a transparent container; mono-chromatic light is passed through the mixt. and the relaive intensities of scattered light at various scattering ngles is measured as a function of time. A plot of relaive intensity against scattering angle shows marked change with time when sensitive bacteria are present. 4. 5. 71 as 121994(5pp47)

HITA D16 89168X/48 =DS 2621-524
Anaerobic processing of biochemical waste - forming low molecular wt. material and volatile acids, then digesting residue forming methane
HITACHI KK 04.07.75-JA-081808 (14.05.75-JA-056151)
*E17 +P41 (E36) (17.05.79) *DT2621-524 C02c-01/14*

Anaerobic process for treatment of waste contg. organic materials with relatively large molecules, comprises (1) aeration with formation of acids and degradation of large molecules; (2) sepn. of unchanged solids; (3) aeration to form CH_4 and CO_2; (4) removal of residual solids. The solid residues can be recycled.

Pref. the waste is pretreated with acid to give pH below 3.5; the mixt. is then heated at 60-200°, and finally neutralised with alkali. Plant for the process is described. 14. 5. 76 as 621524(+19. 5. 75 - JA - 058522)(11pp47)

OLYU D16 35273A/20 =DS 2750-172
Automatic incubator - with transfer device for loading and unloading cultures on parking, inspection and work decks
OLYMPUS OPTICAL KK 09.11.76-JA-133695
*(17.05.79) *DT2750-172 C12k-01/10*

A drive for an automatic incubator has parallel deck plates at different levels for parking, investigating and working culture dishes, each with a central opening. A carrier disc for the culture dishes can be passed on a vertical arm through these openings. A swivelling transfer arm charges and discharges the culture dishes. The drive is effected by an electric motor with a rack-and-pinion drive, bevel and spur gears.

This can be programmed to carry out all operations automatically and to eliminate all contamination. 9. 11. 77 as 750172(13pp39)

TATL ★ D16 39365B/21 ★DT 2849-183
Polysaccharide prepn. from Xanthomonas - using the carbohydrate carbon source as the limiting factor to give effluent of low BOD
TATE & LYLE LTD 16.11.77-GB-047776
Q49 (D13 D17 D21) (17.05.79) A23l-01/04 A61k-05 C12d-13/04 E21b-43/22

The prepn. of a polysaccharide comprises cultivating a polysaccharide-producing strain of the genus Xanthomona as by continuous fermentation in a medium in which the growth-limiting substrate is the carbohydrate - carbon source.

The reological properties of aq. solns. of the xanthan resins obtd. make the resins suitable for use in foodstuffs, dental techniques and oil drilling. Conversion of the carbohydrate source to a polysaccharide is considerably increased and the effluent from the fermentation contains practically no carbohydrate and has a very low BOD. 13.11.78 as 849183 (15pp1401).

MINN ★ D16 39382B/21 ★DT 2849-563
Substrates for immobilising biologically active proteins - comprising solid carrier coated with polymer contg. hydroxy-alkylene-amine units
MINNESOTA MINING CO 14.11.77-US-851492
A96 B04 (17.05.79) C07g-07

Substrate for immobilising biologically active proteins without significantly affecting their biological activity comprise a polar solid carrier having a monomolecular surface film of a water soluble polymer (I) which contains a β-hydroxyalkylinamine unit and has an equiv. wt. of 87-10, 000 based on this unit.

The substrates can be used as carriers for enzymes or immunologically active proteins. In a specific embodiment, an antigen (e.g. gamma-gloublin) is immobilised on a piezoelectric oscillator for direct immunoassay of antibodies. 13.11.78 as 849563 (28pp367).

SNAM D16 79729X/43 =GB 1546-237
Modifying proteins by reaction with quinones - which are opt bonded to polymers, esp for prodn of carrier bound enzymes (BE071076)
SNAMPROGETTI SPA 09.04.75-IT-022140
*B04 J04 (23.05.79) *DT2615-349 C07g-07*

Proteins selected from enzymes, antibodies and enzyme inhibitors are modified by reacting the protein with a quinone, the quinone starting material being in the free state or bonded to a support of polymeric nature (other than a protein), the biological activity of the resulting modified protein being the same as that of the starting protein. Pref. the quinone is 1, 4-benzoquinone, and esp. the reaction is carried out at 0-25°C. and at a pH of 3-11.

In an example, if the protein is an enzyme, it can be used as a heterogeneous catalyst once attached to a water-insoluble matrix. 5.4.76 as 013754 (6pp990)

DEGS D16 17903A/10 =GB 1546-328
Stabilised lipase prepn(s). - contg. as stabiliser sweet whey powder consisting of lactose whey protein, milk fat, whey minerals and water
DEUTSCHE GOLD & SILBER 24.08.76-DT-638089 (24.08.76-DT-638088)
*(D17 D18) (23.05.79) *DT2638-089 A61k-37/48 C07g-07*

Enzyme preparations contg. 1 pt. wt. of a lipase of non-animal origin and 10-50 pts. wt. stabiliser are new. The stabiliser is a mixt. of 40-90 wt.% lactose, 8-50 wt.% whey protein, 0.1-7 wt.% milk fat, 0.1-10 wt.% whey minerals and 0.1-5 wt.% water. Pref. the compsn. also contains a protease and/or an amylase.

Compsns. have improved activity and have good pharmaceutical props. 23.8.77 as 035255 (10pp974)

STRI D16 36414A/20 #GB 1546-544

Highly thermostable cellulase enzyme - prepd. by aerobic culture of Thielavia terrestris (nrrl 8126) in a cellulose-contg medium

SRI INT 08.09.76-US-721535 (18.02.77-GB-006943)

*F09 (23.05.79) *US4081-328 C07g-07/02*

New cellulase enzyme prepn. produced by the fungus Thielavia terrestris (NRRL 8126) is a water soluble solid, precipitatable by ammonium sulphate, has both C_1 and C_x types of enzyme activity and a high degree of stability to temps. around 100°C., and shows optimum enzyme activity at 60-70°C. at pH 5.0-5.6.

It may be obtd. by culturing the fungus in a medium pref. including a cellulosic substrate, esp. at 50-50°C., and at pH 4.5-6.0.

The prepn. is used for conversion of cellulose to glucose as a digestive aid, as an aid in fruit juice clarification and extn., and in the handling of paper pulp fibres to decrease beating time and improve the paper quality. Also used to break down cell walls of yeasts, cereals, etc. to enhance digestability and to remove fibre from edible oil seed cake and increase agar-agar yields from sea weed. 18.2.77 as 006943 (8pp945)

CHEM- D16 06659A/04 =GB 1546-554

Animal and human tissue cells cultivator - keeping cells in circulating suspension by nutrient gas bubbles

CHEMAP AG 15.07.76-OE-005213

*(23.05.79) *DT2722-921 C12b-01/16 C12k-09 +B01f-05/10*

In the cultivation of animal and human tissue cells in a liq. (e.g. aq.) nutrient medium the cells are maintained in the medium which circulates along upwardly and downwardly circulatory paths as a result of an infeed of an O_2 contg. gas into the upwardly circulatory path at a speed sufficient to prevent the cells from settling out of suspension. 13.7.77 as 029521 (—pp1363)

CORP D16 10283A/06 =GB 1546-556

Inactivating the protease in alpha-amylase - by heating in presence of protective material e.g. corn syrup

CPC INTERNATIONAL INC 05.08.76-US-712103 (05.08.76-US-712102)

*(D17) (23.05.79) *BE-857-502 C07g-07/02 +C13k-01/06 C13k-13*

The selective inactivation of proteolytic enzyme activity in a bacterial α-amylase enzyme prepn. comprises first introducing into the prepn. a protective material which interacts with the enzyme material to stabilise it in a heat resistant form, e.g. a corn syrup of D.E. ≤50. The resulting mixt. is then heated to 70-90°C. and maintained at this temp. for sufficient time to completely inactivate the proteolytic enzyme without reducing the α-amylase activity.

The protease-free α-amylase obtd. is useful in prodn. of starch hydrolysates from starchy materials derived from e.g. corn, wheat or rice. 5.8.77 as 032997 (28pp927)

VOLO- ★ D16 39419B/21 ★GB 1546-579

Apparatus for preparing fermented liquid e.g. beer - with fermenting and storage chambers in gas communication with each other

VOLONA LTD 26.07.76-GB-031060 (10.10.72-GB-046679)

(23.05.79) C12b-01

A filtered carbonated, fermented liquid is prepd. using an appts. which includes two chambers, the first being a fermentation chamber which is charged with a fermentable liquid, a filter aid material and yeast. The second chamber acts as a store. Both chambers are sealed from the atmosphere.

The first chamber includes a filter aid support above which the first chamber is defined. A valve opens from the first chamber which when open allows liquid to flow through the filter aid to the second chamber. A gas bypass allows free flow of gas between the two chambers to maintain equal pressure in the two chambers. A valve vent controls the pressure. There is a closable outlet f the second chamber.

The appts. is used to produce a fermented liquid su as beer. 18.1.77 Add. to 1405263 (4pp295)

CLBC D16 94064X/50 =GB 154

Creatine phosphokinase isoenzyme differential assay - before after MB-activation, for myocardial damage diagnosis

CALBIOCHEM 26.09.75-US-616933

*B04 J04 +P31 R16 (23.05.79) *US3994-783 G01n-31/14*

The CPK-MB isoenzyme level in a test fluid is determi by first treating a sample of the fluid with a first thiol that activates the CPK-MM isoenzyme without activatin the CPK-MB isoenzyme, and determining the CPK acti ity of the sample by use of the AP/ADP conversion. T same sample or a 2nd. sample of the test fluid is treat with a 2nd. thiol that activates both the CPK-MM isoenzyme and the CPK-MB isoenzyme, and the CPK activit of the sample determined by use of the ATP/ADP conve sion. The CPK-MB isoenzyme level is then determined from the arithmetical difference between the two activit values obtd.

The assay is esp. critical in the diagnosis of myocar dial infarction. 8.9.76 as 037245 (4pp910)

CORP ★ D16 39458B/21 ★J5 4017-

Glucose isomerase enzyme prepn. - by culturing a strain of Bacil Stearothermophilus in a medium contg. xylose, starch, peptone e

CPC INTERNATIONAL INC 00.00.78-JA-020777 (26.10.71- 192313)

(D17) (08.02.79) C12d-13/10

A strain of Bacillus Stearothermophilus (ATCC 21365, F 1652) is cultured in a culture medium which consists of a soil sample contg. 0.5 wt.% of xylose, 0.5 wt.% of sol ble starch, 0.5 wt.% of peptone, 1.0 wt.% of corn steep liquor, 0.5 wt.% of meat extract, 0.25 wt.% of yeast ext act, 0.5 wt.% of NaCl, 0.05 wt.% of hepta-hydrated magnesium sulphate, 0.024 wt.% of hexa-hydrated cobalt chl ride and 2 wt.% of agar-agar, together with 20 ml of xyl starch agar-agar having 7.0 of adjusted pH. The culturi is performed at ≥50°C and then, the produced glucose-isomerase enzyme is collected.

The glucose-isomerase enzyme is used for isomerizi glucose into fructose. 25.10.72 as 20777/78 Div. ex. 107043/72 (11pp15)

KYOW ★ D16 39593B/21 ★J5 4046-7

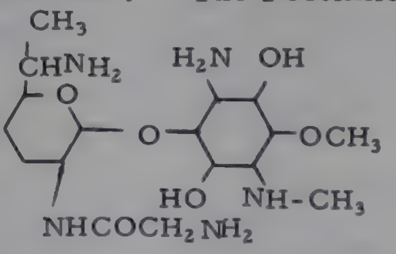
Antibiotic Fortimicin-KO - prepd. by culturing microorganism genus Micromonospora

KYOWA FERMENTATION KK 21.09.77-JA-113193

B03 (12.04.79) A61k-31/71 C07h-15/22 C12d-09/14 C12d-13

Fortimicin KO of formula (I) and its non-toxic acid addn. salts are new. The Fortimicin KO is prepd. by cultivation of microorganis belonging to the Gen Micromonospora, which can produce Fortimicin KO in a culture medium and recovering the Forti micin KO from the culture broth. Typical example of the microorganism is Micromonospora olivoasterospora MK-70 (FERM No. 1560).

(I)



The culture medium contains carbon source such as glucose, starch, mannose, fructose, sucrose, etc., nitro gen source such as peptone, meat extract, yeast extract, etc., and other additives such as table salt, potassium chloride, calcium carbonate, phosphate, etc. The cultivation is conducted in liquid phase under submerged agitated cultivation at 25-40°C at neutral pH range for 2-15 day The resulting Fortimicin KO is recovered by conventional manner. 21.9.77 as 113193 (11pp22)

ITN ★ D16 39653B/21 ★J5 4046-881

odn. of selenium-contg. microorganism - by culturing icroorganism in culture medium contg. lower alcohol lower rboxylic acid or n paraffin as carbon source and selenium cpd.

MITSUBISHI GAS CHEM IND 19.09.77-JA-112453

C03 (D13) (13.04.79) A23k-01 C12b-01/08 C12b-03/02 C12c-11/08 C12k-03

rocess comprises culturing microorganisms in a culture q. contg. (a) lower alcohol, lower carboxylic acid or n-araffin as the major carbon source and (b) Se cpd.

Pref. the Se cpd. is Na selenate, Na selenite, selenic cid, selenious acid, etc. combined in the culture liq. so hat the concn. of Se in the culture liq. is < 50 ppm esp. < 0.2 ppm. Any yeast, bacteria, mould or Streptomyces which can utilise lower alcohol, lower fatty acid or n-paraffin can be used. 19.9.77 as 112453 (11pp5)

IKE- ★ D16 39654B/21 ★J5 4046-883

etermn. of the sensitivity of bacteria to pharmaceuticals - using moulded mixt. contg. antibacterial and culture medium

EIKEN KAGAKU KK 20.09.77-JA-112180

B04 R16 (13.04.79) C12k-01/10 G01n-31/22

Reagent for determn. of the pharmaceutical sensitivity of bacteria which comprises a moulded mixt. of a small amt. of antibacterial drugs and part or all of the culture medium component to be used for determn. The antibacterial may be any antibiotic, narijicsic acid, hydromidic acid, sulfa drugs, etc. 20.9.77 as 112180 (3pp69)

KANE ★ D16 39655B/21 ★J5 4046-885

Stabilisation of urokinase - by adding guanine or guanine derivs. to urokinase - contg. material

KANEBO KK 20.09.77-JA-113636

B04 (13.04.79) C07g-07/02

The urokinase-contg. material is soln. or powder of high specific activity of urokinase of specific activity > 30,000 IU/mg, or is a soln. or powder of crude urokinase. The guanine deriv. is pref. 1-methylguanine. The pH of urokinase soln. is 5-10. The ion strength of urokinase soln. is 0.02-0.8. The added amt. of guanine (derivs. is 5-8,000 mol/mole protein.

Urokinase is enzyme that has catalytic action as plasminogen activator and it is recently noticed as remedy for thrombus and aid to carcinostabilising drugs. 20.9.77 as 113636 (5pp69)

TOYF ★ D16 39656B/21 ★J5 4046-886

Fixing enzymes for catalytic or analytical use - by mixing with hydrophilic polyether-isocyanate cpd. reaction prod., foaming, adding solvent and film-forming

TOYO RUBBER IND KK 20.09.77-JA-113708

A97 B04 J04 (A25) (13.04.79) C07g-07/02

The method comprises (a) reacting hydrophilic polyether, composed of the polyetherpolyol of the ethyleneoxide propylene oxide copolymer (ethylene oxide content > 50%: ave. mol. wt. 500-10,000) prepd. using polyol and/or amine as initiator with isocyanate cpd., (b) mixing thus obtd. prepolymer, having an isocyanate end gp., with aq. enzyme soln, (c) foam-reacting the mixt., (d) adding hydrophilic organic solvent before completion of the reaction in order to break the foam and decrease the viscosity of the mixt. and (e) forming a film from the obtd. polyurethane soln.

The filmy fixed enzyme has high enzymic activity, and sufficient mechanical strength, and excellent stability. It can be used not only as an industrial biological catalyst, but also as the enzyme electrode for analysis.

Pref. the isocyanate cpd. is diphenylmethanediisocyanate, or tolylenediisocyanate; the prepolymer has an NCO index of 2-10%, pref. 4-6%; aq. enzyme soln. is used in an amt. of 0.1-10 times the wt. of the prepolymer; the hydrophilic organic solvent is added in an amt. of 0.1-3 times the vol. of aq. enzyme soln; the hydrophilic organic solvent is added when the 50-70% foaming has occurred, and the aq. enzyme soln. contains dissolved protecting substance for enzyme (e.g. albumin, casein, gelatin, etc.) 20.9.77 as 113708 (4pp5)

NITT ★ D16 39657B/21 ★J5 4046-88

(meth)acrylic acid mfr. from (meth)acrylamide - using Actinomyce microorganism enzyme as catalyst

NITTO CHEM IND KK 19.09.77-JA-111641

A41 E17 (13.04.79) C12d-01/02

Prepn. of (meth)acrylic acid from (meth)acrylamide comprises contact-reacting (meth)acrylamide with a strain of Actinomyces showing amidase activity or its enzyme in ac medium at pH 5-9 and at 25-40°C. The concn. of (meth) acrylamide is adjusted to 5-20 w/w% and the strain is use at 0.5-5 w/w% as the dry microbial body on (meth)acrylamide.

Thus an inexpensive microbial body is used as the biological catalyst in place of an expensive beryllium catalyst in relatively high (meth)acrylamide concn.

(Meth)acrylic acid can be prepd. stoichiometrically. T strain Actinomyces No. 10021 (FERM-P 3451) has strong hydrolysing and utilising ability for (meth)acrylamide. Th reaction can be practiced not only with the microbial body but also with the enzyme sepd. from the microbial body o the fixed enzyme. 19.9.77 as 111641 (4pp5)

KANF ★ D16 39658B/21 ★J5 4046-88

Coenzyme/Q prepn. - by extn. from microorganism, etc. usin azeotropic mixt. of hydrophobic and hydrophilic solvent

KANEGAFUCHI CHEM KK 21.09.77-JA-114098

B05 (13.04.79) C07g-07/02 C12d-13

Process comprises extracting coenzyme Q from microorganism fungi body etc. contg. coenzyme Q with mixt. of hydrophilic solvent and hydrophobic solvent, sepg. out the extract into two layers of hydrophilic solvent layer and hydrophobic solvent layer, taking out coenzyme Q from hydrophobic solvent layer and purifying crude coenzyme Q by saponification. Pref. the mixing ratio of hydrophilic solvent and hydrophobic solvent is azeotropic compsn.

Coenzyme Q exists mainly in mitochondoria in microorganism, animal and vegetable cell, and is a known impo-tant factor in terminal electron conduction system. It is used as a pharmaceutical, e.g. for treatment of congestec heart insufficiency. 21.9.77 as 114098 (4pp69)

KYOW ★ D16 39659B/21 ★J5 4046-891

Specific phosphate prepn. - using microorganism which regenerate starting material

KYOWA FERMENTATION KK 21.09.77-JA-113194

B04 (13.04.79) C12d-05/04 C12d-13

A specific phosphate is prepd. by reacting the precursor for the specific phosphate with a high energy-phosphate in the presence of a microorganism or its treated product which shows the producing ability for the specific phosphate. The microorganism or its treated product is one which can reconvert the low energy-phosphate formed by the reaction to the high energy-phosphate, together with the microorganism or its treated product.

The specific phosphate (a) such as NADP (nocotinic amide adenine dinucleotide phosphate), CoA (Coenzyme A) FAD (flavin adenine dinucleotide), CDP-choline (cytidine diphosphate choline), etc. can be prepd. from their respective precursor such as NAD, panthotenic acid, FAM (flavin mononucleotide), cytidine-5'-phosphate, etc. inexpensively. 21.9.77 as 113194 (5pp5)

NAKA- ★ D16 39660B/21 ★J5 4046-899

Acetic acid prepn. by fermentation - of Acetobacter bacteria in culture medium contg. ethanol

NAKANO SU-MISE KK 17.09.77-JA-111242

E17 (D13) (13.04.79) C12d-01/02 C12j-01/04

Process comprises inoculating acetic acid bacteria of Acetobacter which can multiply vigorously and shows strong productivity for acetic acid on submerged culture at 35-40 C in the liquid culture medium contg. > 4% of acetic acid and ethanol in such a culture medium.

Acetic acid fermentation can be practiced at 35-40°C which is higher than conventional acetic acid-fermenting temp. of 30°C and the cooling water can reduced. The novel bacterial strain used is Acetobacter acetii 2-550 (FER P 4195). 17.9.77 as 111242 (6pp5)

MELC/ ★ D16 B/21 ★IT 1029-059
Mushroom roots cutting machine
MELCHIORI E 07.04.75-IT-041574
(10.03.79) A23n

LEEN= ★ D16 B/21 ★IT 1029-318
Electrical disinfection and purification of liquids
LENGD ENG-CONS INST 01.10.74-IT-041685
(D22) (10.03.79) C12h

TURE/ ★ D16 B/21 ★IT 1029-333
Grapefruit liqueur prodn.
TURETTA L 06.09.74-IT-085585
(10.03.79) C12g

PLAC D16 19710T/12 =SU -615-871
Bacteria m 102' strains - for oxidizing methane to protein
MAX PLANCK GES WISSENSCH 15.09.70-DT-045589
*H04 (06.09.78) *BE-772-624 +C12k-03*

Methane-oxidising bacterial culture, useful in microbiological prodn. of feed biomass from methane gas, is sepd. from biotic boundry layer of aquatic soil.

The high activity bacterial culture is obtd. if the soil sample is added to liquid mineral nutrient contg. K_2HPO_4 and $MgSO_4$ (0.2g/l), ferric chloride traces and 1 ml/l of mixed salt based soln. The mixt. is then incubated in the presence of methane/air (1:1) gas mixt., and the resulting biomass is cultured again on mineral-agar nutrient.

The mixed salt soln. is obtd. by dissolving in 18 l. water salt mixt. contg. (in g): lithium chloride 0.5; copper sulphate pentahydrate 1.0; zinc sulphate heptahydrate 1.0; boric acid 11.0; ammonium sulphate 1.0; tinchloride hydrate 0.5; nickel sulphate hexahydrate 1.0; manganese chloride tetrahydrate 7.0; cobalt nitrate hexahydrate 1.0; titanium oxide 1.0; potassium iodide 0.5 and potassium bromide 0.5.

Oberbeck, J., Naguib, M. Bul. 26/15.7.78. 15.9.71. as 699988 (5pp938)

YALT= ★ D16 40063B/21 ★SU -615-936
Electrophoretic transfer measurement of trypsin molecules - by separating main soln. and determining trypsin conc.
YALTA PHYS MED TREA 09.02.77-SU-453490
A89 B04 J04 P34 R16 (19.06.78) A61n-01/30 G01n-27/22

Electrophoretic transfer of high mol. wt. cpds. e.g., proteins, ferments etc. is established by placing the soln. of substance under investigation in a solvent medium in the middle section of an electrophoretic chamber. Then electrophoresis is carried out and the concentration of the substance is measured.

Precision is increased by dividing the soln. using a nylon membrane, into two parts. After carrying out the electrophoresis these parts are isolated from one another, so as to prevent them from mixing.

Pertsovskii, A.I., Emelkin, V.I. Bul. 27/25.7.78. 9.2.77. as 453490 (2pp29)

FOUN= ★ D16 40112B/21 ★SU -616-035
Scale-preventing coating for metal casting moulds and cores - comprises neutralised prod. from conc. aq. molasses fermentation waste, from citric acid mfr., as impregnating soln.
FOUNDRY PROD INST 05.04.76-SU-342653
E17 M22 P53 (22.06.78) B22c-03

Use of a 36-49% soln. of the prod. of neutralisation of the fermented molasse solns. (waste of the citric acid mfr.) for impregnating casting moulds and cores prevents the mixture from sticking to the support and strengthens the mould surface.

It facilitates subsequent application of the foundry facing mixtures and yields casts with improved surface finish.

Savochkin, O.G., Evstafev, N.I., Bogovoi, M.V. et al Bul. 27/25.7.78. 5.4.76. as 342653 (3pp124)

MOWI= ★ D16 40223B/21 ★SU -616-277
Stable medium dry table wine prodn. - includes addn. of wort to dry wine and mixing with acrylic copolymer before clearing
MOSC BR WINE MAKING 10.02.77-SU-452188
A97 (12.06.78) C12g-01/02

Medium dry table wine prepn. includes blending dry wine with grape wort pretreated in vacuo, clarification of the blend, cooling, sedimentation, sepn. and bottling.

To improve storage stability and organoleptic characteristics, the wort, before blending, is diluted wi dry wine to give mixt. with sugar content of 19.5-20.0g/ 100ml. The resulting wort is cooled to (-) 1-0°C and then treated with water-insoluble copolymer of N-vinylpyrrolidone with triethyleneglycol dimethacrylate and pentaerythritol tetramethacrylate esters. The amt. of copolymer is 5-10 g/dal. It is added with stirring, followed by cleaning.

Belykm, S.I., Bublevskii, I.M., Davidov, A.B. et al. Bul. 27/25.7.78. 10.2.77. as 452188 (3pp938)

YALD= ★ D16 40224B/21 ★SU -616-27
Calcium tartrate and animal feedstuff prodn. - from wine mf fermentation waste, using corn cob powder and bentonite befor sepn. and soda and calcium chloride addn.
YALOVENY AGRO IND 11.02.77-SU-452218
C03 E12 (D13) (12.06.78) A23k-01/06 C12g-01/02

Calcium tartrate and animal feedstuff are obtd. from wine prodn. fermination waste by adding water, distilling off alcohol, treating the residue with 15-20% ground corn cobs (0.8-1.0 mm. particles) stirring for 5-10 min. then adding 5-10% bentonite followed by stirring and filtration.

The solid phase is washed with filtrate, then with hot water followed by two-stage drying. The prod. contg. 5-10% moisture is used as animal feed.

The filtrate is treated with calcined soda (20% soln.) to pH 6.0 then with calcium chloride (20% soln.) to neutral reaction. The soln. is cooled to ppte. calcium tartrate, which is sepd. and dried to 5-6% moisture content.

The addn. of corn cobs and bentonite accelerate filtration rate of the fermentation waste and gives higher yield of calcium tartrate.

Kozub, G.I., Murza, T.P., Paraska, P.I. et al. Bul. 27/25.7.78. 11.2.77. as 452218 (2pp938)

LINC/ ★ D16 40360B/21 ★US 4152-86
Mushroom spawn prodn. - with sterilisation of nutrient and growt chambers using gaseous fumigant
LINCOLN R G 24.02.78-US-880770
P13 (08.05.79) A01g-01/04

Mushroom spawn is growth in chambers which each have a removable cover vented to atmosphere through a filter. Mushroom mycelium growth nutrient is subjected to a gaseous fumigant to sterilise it, and this is advanced to a sterile enclosure where it is mixed with sterile water.

The mixture of water and nutrient is heated within the sterile enclosure to cook the nutrient. The growth chambe and covers are sterilised and placed in the sterile enclosure where they are partially filled with the nutrient which has been cooled to ambient temp. Still in the sterile enclos ure the nutrient in each chamber is inoculated with mushroom mycelium and the covers are sealed. The chambers may then be removed from the enclosure and the myceliun allowed to grow.

Method obviates the use of an autoclave. 24.2.78 as 880770 (4pp295)

CORG D16 24332B/13 =US 4153-510
Composites of microbes bound to porous support - with defined pore size characteristics
CORNING GLASS WORKS 14.09.77-US-833278
*(08.05.79) *GB2004-300 +C12b-01*

An immobilised microbe composite is prepd. comprising a porous, high surface area inorganic support having a controlled population of microbes bonded to the internal surfaces of the pores.

The support is water-insoluble, non-toxic to the microbes and has a controlled porosity such that $\geqslant$70% of the pores, on a pore size distribution basis, has pore dia. > as large as the smallest dimension of the microbes, but <5 times their largest dimension. Pref. the support is a cordierite like material.

Microbes used include Escherichia coli, Serratia marcescens, Bacillus subtilis and Rhodospirillum rubrum. Support materials are in particulate form with particle size 18-25 mesh. 14.9.77 as 833278 (7pp931)

ODR/ ★ D16 40467B/21 ★US 4153-511
abilised liq. coenzyme compsn. - in which the coenzyme is ssolved in an organic solvent contg. a hygroscopic solid
MODROVICH I E 02.02.77-US-764826 (17.03.76-US-667857)
B04 R16 (08.05.79) G01n-31/14

labile coenzyme which is used in biological diagnostic eterminations and which is normally unstable in aq. edia is tabilised by dissolving it in a non-reactive, water iscible organic solvent, adding ≥1% (v/v) of an inert ygroscopic solid and stirring the resulting suspension to ntrap water with the solid so that the residual water con-ent is <0.5%, and sealing the suspension.

The stabilised compsn. shows excellent shelf life and he container in which it is kept may be repeatedly opened or use without degradation of the coenzyme. 2.2.77 as 64826 (6pp476)

ISH- D16 72453Y/41 =US 4153-512
est method for measuring sensitivity of microorganisms to ntibiotics - comprises a series of test cells containing progressive antibiotic concentrations and a standard amount of polyvinyl pyrrolidone
FISHER SCIENTIFIC (AMCY) 07.04.76-US-674473
*A96 B04 R16 (A14) (08.05.79) *BE-853-253 C12k-01/04*

Test kit for measuring the antibiotic susceptibility of a microorganism, comprises integral test chambers, at least some of which have a graduated series of concns. of an antibiotic and a uniform quantity of polyvinyl pyrrolidone (PVP) as water-soluble bulking agent and antibiotic retaining carrier. The antibiotic is in dispersed and reconstitutable frozen-dried form in the PVP.

Pref. the measurement is made by reconstituting the antibiotic in the PVP by adding a culture medium inoculated with a test microorganism, incubating and reading the test microorganism growth. 7.4.76 as 674473 (9pp997)

NAGE/ D16 67020Y/38 =US 4153-686
Drug-potentiating e.g. ampicillin-potentiating glycoprotein prodn. - by incubating native protein with yeast enzymes in presence of monosaccharides
NAGEL H H 28.01.76-DT-603122
*B04 (08.05.79) *DT2603-122 A61k-37/02*

Stabilised glucoprotein is used for the prepn. of medicaments with a potentiating action of the active substances. 10^2-10^6 Pts. wt. active medicament is used per pt. wt. glucoprotein.

The stabilised glucoprotein is prepd. by reacting an aq. suspension of yeast with monosaccharides and native albumin as starting substance, and sepg. the glucoprotein from the resalting reaction medium and stabilising with an inorganic electrolyte and/or a saccharide and albumin mixt. 18.1.77 as 760423 (6pp974)

NATR D16 18088B/10 =WP 7900-255
Enzymatic analysis using nitro-styrene derivs. - e.g. determination of N-acetyl-beta-d glucosaminidase to detect renal troubles is simple and gives visual signal
NATIONAL RES DEV CORP (RICH/) 01.11.77-GB-045390
*B04 J04 R16 (17.05.79) *BE-871-717 G01n-33/16 +C07f-09/12 C07h-15/20*
D/S: N(CH, DT, JA, US) + E(FR).

(A) Reagent for analysis of an enzyme contains a substance capable of reacting with the enzyme to form a cpd. of formula (I) which is capable of producing an easily discernable visual signal.

$$X - A - Y - NO_2 \qquad (I)$$

(where A = an aromatic ring;
X = an auxochrome radical and
Y = an unsaturated radical which is capable of transmitting the electronic resonance between the aromatic ring and the nitro radical).

(B) The analytical process and a simple apparatus for effecting it are also claimed.

Detection and determination of enzymes, e.g. catabolic enzymes such as carboxylate esterases, lipases, alkaline and acid phosphatases, sulphatases and phosphodiesterases; glycosidases, e.g. N-acetyl-β-D-glucosaminidase (detection of this enzyme gives an indication of renal troubles or advance warning of rejection of a kidney graft). The process may also be used to determine absence of enzymes, e.g. to reveal genetic problems.

31.10.78 as GB0033 (42pp395).
(E) ISR: FR2358419; US3968011; 1 Journal Reference.

JONS/ ★ D16 40601B/21 ★WP 7900-256
Prodn. of a stable prepn. having immunoglobulin binding properties - comprises heat killing bacteria followed by lyophilisation
JONSSON U 31.10.77-SW-012244
B04 R16 (17.05.79) C12k-01/08 G01n-33/16
D/S: N(JA, SU, US) + E(BR, CH, DT, FR, GB).

Prodn. of a stable prepn. with immunoglobulin-binding properties comprises growing bacteria of species having immunoglobulin-binding capacity beyond that based on a reaction between antigens of the bacteria and specific antibodies directed against such antigens, in a substrate wherein the bacteria form an immunoglobulin-binding substance and then without any preceding treatment other than washing are killed. The killed bacteria are then lyophilised to give a bacteria suspension that can be reconstituted with liquid.

Suitable bacteria are Staphylococcus aureus and Streptococcus pyogenes.

Provides a simplified method of prodn. of prepns. with immunoglobulin-binding properties. Prepn. is stable, easy to transport and distribute and may be stored for a practically unlimited period without significant destruction. Prepn. may be used in radioimmunoassays, e.g. for hepatitis B-antigen or for aminoglycoside antibiotics such as gentamycin.

31.10.78 as SW0066 (20pp954).
(E) ISR: SW7602866; 4 Journal references.

See Also

D13 SU 615862 D14 SU 615347 D25 DS 2167169

D17: SUGAR; STARCH

CORP ★ D17 38989B/21 ★BE-872-116
Modified starch prepn. esp. using two centrifuge separations - recycling liquor from reaction stage to dilution stage
CPC INTERNATIONAL INC 21.11.77-FR-034930
A11 (21.05.79) C13l

The process in which a starch milk is subjected to liquor sepn., diluted, and then chemically reacted, comprises a 1st liquor sepn. stage before reaction and a 2nd liquor sepn. stage after reaction. The filtrate from the 2nd liquor sepn. stage is recycled at least once for use at the dilution stage. The process is carried out using a 1st centrifuge linked in series to dilution and reaction vessels opt. inc. a reheater, followed by a 2nd centrifuge.

The process avoids dishcarge of the filtrate to waste, the treatment of which is very costly. 20.11.78 as 872116 (20pp597)

MATS- ★ D21 39757B/21 ★J5 4047-791

Polymerising and moulding methyl methacrylate dental resin - in inert gas atmos. with low oxygen content to prevent discolouration and air bubble formation

MATSUKAZE TOSHI SEI 21.09.77-JA-114323

A96 P32 (A14) (14.04.79) A61c-13/08 A61k-05/06 C08f-02/02 C08f-20/14

Polymerisation of dental resin comprises polymerising and moulding dental resin consisting of methyl methacrylate and its deriv. in inert gas atmos. in which the content of oxygen is $<$15 wt.% under normal or applied pressure.

In an example 10 parts of PMMA and 5 parts of methyl methacrylate were mixed, charged into gypsum mould of 2x2x2 cm, maintained to 100°C, for 1 hour under pressure of 5 kg/cm^2 in N$_2$ gas and cooled naturally under normal pressure. Thus obtd. mouldings were colourless and transparent and air bubbles were not found in the central part. 21.9.77 as 114323 (4pp78)

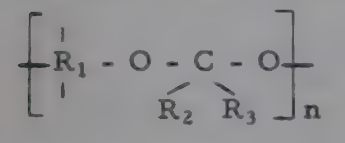
ALZA D21 48032X/26 =J7 9010-037

Biodegradable ortho-ester polymers - for enclosing active agents to be liberated therefrom e.g. steroid implants

ALZA CORP 28.01.75-US-544808

*A96 B07 C03 +P34 (A23) (01.05.79) *BE-837-935 A61k-09/48 C08g-65/34*

Polymers contain the repeating unit of formula (I):-



$$\left[-\overset{|}{\underset{|}{R_1}}-O-\underset{R_2\quad R_3}{C}-O- \right]_n$$ (I)

(where R$_1$ is a polyvalent radical of (a) 2-10C alkylene or alkenylene; (b) 2-6C oxa-alkylene with one or two internal oxa gps.; (c) cycloalkylene contg. 3-7 cyclic C atoms, and opt. substd. by 1-7C alkyl or alkoxy or 2-7C alkinyl; (d) cycloalkenylene contg. 4-7 cyclic C atoms and opt. substd. as in (c); (e) cycloalkene-di(aliphatic hydrocarbylene) congt. 3-7 cyclic C atoms, the hydrocarbylene gps contg. 1-7C atoms and the ring being opt. substd. as in (c); (f) cycloalkane-di(aliphatic hydrocarbylene) contg. 4-7 cyclic C atoms.

Material is used e.g. as a biodegradable polymer enclosing an active agent which is liberated therefrom, e.g. pesticides, herbicides, biocides, algicides, rodenticides, fungicides, insecticides, cosmetic prods. medicaments, fertility inhibitors and activators, air purifiers, nutritive substances, etc. The active substance may be liberated at constant or variable rates depending on the compsn. and m. wt. of the polymer.

The polymers are esp. suitable for the prepn. of steroid implants for the treatment of inflammations. 27.1.76 as 007872 (clg.28.1.75-US-544808) C08g-65/34;A61k-9/48 (1.5.79) ALZA CORP (27pp)(J51100194)

LEME= ★ D21 40059B/21 ★SU -615-930

Non corrosive polishing compsn. for dental fillings - comprises china flour, vaseline oil and wax

LENGD MEDIC INST 15.09.76-SU-401545

(15.06.78) A61k-05

Polishing compsn. for dental fillings are rendered less corrosive by using china flour as polishing agent, vaseline oil as fluidisation agent and wax. The compsn. comprises (wt.%): china flour 60-70, vaseline oil 28-30, wax 2-10.

Shteingart, M.Z., Vasilev, I.A., Mironovich, V.F. et al. Bul. 27/25.7.78. 15.9.76. as 401545 (2pp835)

ODME= ★ D21 40060B/21 ★SU -615-931

Tooth-paste having improved prophylactic properties - is obtd. by adding spinach extract and eucalyptus extract and is effective against periodontitis

ODESS MEDICAL INST (MOSV=) 14.02.77-SU-452553

A96 (19.06.78) A61k-07/26

Tooth-paste having improved prophylactic activity is made by adding spinach extract, an aq. alcohol extract of eucalyptus and perfumery oil. The paste comprises (wt.%): chalk 38-40, glycerol 20-22, Na-carboxymethylcellulose 1.2-1.5, Na lauryl sulphate 1.2-2.0, antiseptic 0.2-0.3, spinach extract 1.0-1.5, perfumery oil 0.7-1.0, aq. alcohol extract of eucalyptus 0.05-0.07, deodorant 0.7-1.0, and the remainder is water.

Fedorov, Yu.A., Makul'kin, R.F., Todorashko, V.P. et al Bul. 27/25.7.78. 14.2.77. as 452553 (2pp835)

ODME= ★ D21 40061B/21 ★SU -615-

Tooth-paste with prophylactic properties - is obtd. by ad carbonate extract of juniper berries and eucalyptus extract an useful in initial stage of periodontitis

ODESS MEDICAL INST (MOSV=) 14.02.77-SU-452577

A96 (19.06.78) A61k-07/26

Tooth-paste having improved prophylactic properties is obtd. by addition of a carbonate extract of juniper berri and an aq. -alcohol extract of eucal ptus. The prod. comprises (wt.%): chalk 38-40, Na-carboxymethylcellu lose 1.2-1.5, glycerol 20-22, antiseptic 0.2-0.3, Na laurylsulphate 1.2-2.0, perfumery oil 0.7-1.0, carbon- ate extract of juniper berries 0.07-1.5, aq. alcohol extract of eucalyptus 0.05-0.07, deodorant 0.7-1.0 and the remainder is water.

Fedorov, Yu.A., Kulazhenko, V.I., Dmitriev, I.M. et al. Bul. 27/25.7.78. 14.2.77. as 452577 (2pp835)

MCGA/ ★ D21 40351B/21 ★US 4152-7

Garment which automatically removes unwanted hair - compris fabric coated with microcapsules contg. liq. depilatory agent

MCGALLIARD J D 01.02.78-US-873814

A83 F07 P21 (08.05.79) A41b-11

A garment wearable by a person to automatically remove unwanted hair, comprises (a) a fabric coated with microcapsules; and (b) a liquid depilatory agent contain within microcapsules.

The microcapsules comprise a pressure-sensitive th shell which releases the depilatory agent in response to pressure exerted by a hair stubble, the depilatory reduc ing the disulphur cross-links of hair stubble upon contac 1.2.78 as 873814 (-pp)

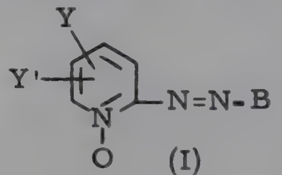
OREA D21 03862V/03 =US 4153-0

Hair dyes - for human use giving wide range of colours

L'OREAL SA 19.06.72-LU-065539

*A96 E23 +P24 (08.05.79) *BE-801-052 A45d-07 D06p-03*

A dye compsn. for human hair is prepd. comprising a sc in an aq. or aq. alcohol solvent of 0.001-1 wt.% of 1 dy of formula (I), where Y and Y' are each H, halogen, 1-4 alkyl or alkoxy, nitro or carboxyl. B is 4'-phenylaminobenzene, PhN(H)CH$_2$SO$_3$Na, 8'-hydroxy 7'-sul phonate-quinoline or 4'-amino 8'-hy droxy naphthyl. Compsn. has pH of 3-9.5. Pref. compsn. contains $\geqslant$1 other direct hair dye such as azo dyes, anthraquinone dyes, nitro dyes of the benzene seri indoanilines, indophenols and indamines.



(I)

Dyes exhibit an excellent affinity for human hair and provide luminous and stable colourations ranging from ye low to blue. 15.6.77 as 806817 Div.ex. 3955918 (+18.2.7 18.6.73-US-659145; 370651) (5pp931)

WILK D21 67743U/45 =US 4153-67

Alkylcarboxamides in cooling compsns - acting on skin and mucou membranes

WILKINSON SWORD LTD 18.04.72-GB-017914

*B05 +P34 (08.05.79) *DT2317-538 A61k-07/16 A61l-09/04*

Acyclic carboxamides of formula (I) (R$_3$)(R$_2$)(R$_1$)C-CONR$_1$ are capable of stimulating the cold receptors of the nervous system in the surface tissues of the body when broug into contact therewith by topical application or consumpti of a vehicle contg. (I). In the formula R$_1$ and R$_2$ are (m)ethyl; R$_1$ is (m)ethyl or n-propyl; R$_2$ and R$_3$ are each 1-5C alkyl providing that $\geqslant$1 of R$_2$ and R$_3$ is branched at th C atom in the α or β position; R$_1$, R$_2$ and R$_3$ together provi ing a total of $\geqslant$5C.

A toiletry prod. comprises a topically administrable vehicle contg. (I) and odourant, antiseptic, colourant and/ or surfactant. A foodstuff or beverage prod. comprises ar orally ingestible vehicle contg. (I) and flavourant. (I) may also be used in a tobacco prod. e.g. a cigarette filter tip.

Cpds. (I) have a cooling effect similar to that of menth- ol but do not have the strong minty odour. 14.2.77 as 768219 (+16.4.73-US-351357)(9pp984)

RP ★ D17 39026B/21 ★BE -873-615

nc. sugar syrup derived from starch - contg. dextrose, levulose, altulose and maltose in specified amts.

CPC INTERNATIONAL INC 23.01.78-GB-002653
(16.05.79) C13k

e syrup compsn. derived from starch not crystallising 75% solids concn., having a dextrose equiv. of 60-90, ntains, on a dry basis, 20-40% dextrose, 20-40% levuse, 10-60% maltulose, 0-25% maltose, 0-20% saccharies having a degree of polymerisation above 2, the total etose content being 40-80%.

The syrup is prepd. by (a) first submitting a starch ydrolysate contg. $\geqslant$40% maltose and $\leqslant$5% dextrose, to an kaline isomerisation treatment to isomerise part of the altose to maltulose and obtain a 10-60% maltulose content n a dry basis. The hydrolysate is then (b) treated with lucoamylase under conditions to saccharify the maltose nd saccharide of polymerisation degree over 2 without accharifying the maltulose and obtain a hydrolysate contg. -2 maltose and $\geqslant$40% dextrose. The hydrolysate is then (c) reated to isomerise up to 50% of the dextrose into levuose.

The syrups, used in a wide variety of food products, ave excellent sugary flavours, do not crystallise or cloud t 75% solids or more, enabling easy storage and transort; the high concn. impeding bacteriological action. 2.1.79 as 873615 (20pp597)

ELW- ★ D17 39208B/21 ★DT 2750-489

upport for the cover sieves of continuous centrifuges - formed by a erforated embossed plate and backing strips

SELWIG & LANGE MASC 11.11.77-DT-750489
J01 P41 (17.05.79) B04b-07/16

n a continuous centrifuge, esp. for sugar, deflection of the cover sieve and its consequent excessive wear is prevented without obstruction to the flow of liq.

The support sieve for backing up the cover sieve consists of a perforated plate with raised bosses pressed outwards to give slots, and form support surfaces, whilst the support surfaces against which the cover sieve rests are comprised by parallel rings of strip metal. The supporting sieve perforations are pref. 1mm in dia. The ring strips are pref. 4mm wide. 11.11.77 as 750489 (6pp1045).

MASW ★ D17 39242B/21 ★DT 2750-788

Sugar beet scalding vat - with mash zone covered by degassing screen and gas extraction cowl

MASCH BUCKAU R WOLF 14.11.77-DT-750788
(17.05.79) C13d-01

A scalding vat to transform shredded sugar beet into a state of plasmolysis is a horizontal vessel with a stepped shaft. The mash zone extends over the length of the smaller-diameter shaft and over 1/4 to 1/3 of the vat length. The upper 135° sector of the mash zone periphery is designed as a screen and is surrounded by a gas collector cowl with a gas extraction pipe.

This prevents the froth formed in the vat and the gases released during the plasmolysis from entering the diffusion tower. 14.11.77 as 750788 (17pp39).

BRDM D17 12040A/06 =GB 1546-284

Rotary bowl coaxial screw conveyor centrifuge - with mechanism for suppressing excessive torsional vibration

BIRD MACHINE CO 14.10.76-US-732315
*J01 P41 +Q63 (23.05.79) *US4069-966 B04b-01/20*

A centrifuge includes a rotary bowl member and a rotary conveyor member mounted coaxially therein. A speed change gearing is connected between the members so that driving one member in one direction drives the other in the same direction at a differential speed. A torque-transmitting external connection is provided between the gearing, the bowl member and conveyor.

The external connection comprises a leaf spring and mass which is torsionally resilient to vibrate about an external axis during chatter of the assembly. A separate damper is provided to apply resistance to the torsional vibration. 28.9.77 as 040471 (15pp1363)

BRDM D17 12041A/06 =GB 1546-285

Rotary bowl coaxial screw conveyor centrifuge - with mechanism for reducing excessive torsional vibration

BIRD MACHINE CO 14.10.76-US-732316
*J01 P41 +Q63 (23.05.79) *US4069-967 B04b-01/20*

A centrifuge includes a rotary bowl member and a rotary conveyor member mounted co-axially therein. A speed change gearing is connected between the members so that rotationally driving one member drives the other in the same direction at a differential speed. A torque-transmitting external connection is provided between the gearing and a holder at a torque on the connection which is relatively low c.f. the torque on the connections between the gearing, the bowl and the conveyor member.

Chatter of the assembly is suppressed by an external connection in the form of a torsion bar having a spring rate within the range + 40% to -25% of the spring rate at which the torsion bar vibrates in resonance with the vibration of the assembly during chatter. 28.9.77 as 040372 (11pp1363)

KIFO= ★ D17 40226B/21 ★SU -616-280

Saturator for treating sugar beet juice - e.g. with lime and carbon di:oxide, has liquid sprayed into individual shells through which gas passes

KIEV FOOD IND TECHN 15.02.77-SU-453108
(12.06.78) C13d-03/04

Saturator for beet-sugar prodn. e.g. to purify the sugar-contg. solns. by the lime/carbonate method, has vertical body widening but at the top and a separator to remove drops fromthe gas, which exits through the pipe provided. There are means for supplying the gas and the juice.

The cleaning effect is increased together with the utilisation factor for the carbon dioxide gas, by placing vertical shells in contact with one another in the widened out top part of the body. The juice-feeder consists of sprayheads in the bottom of each of the shells. A rotatable slide-valve is installed in the gas-exit pipe.

The juice to be clarified is fed at 3-6 atm. into a manifold and thence through the sprayheads up into each of the shells. The main part of the sprayed liquid flows downwards into the body, while the peripheral liquid flows down the shell walls.

Fedotkin, I.M., Timonin, A.N., Gladkii, V.N. et al.
Bul. 27/25.7.78. 15.2.77. as 453108 (3pp29)

See Also

D16 DT 2849183 D16 GB 1546328 D16 GB 1546556
D16 J5 4017181

D18: SKINS; HIDES; LEATHER; TOBACCO

DMEL/ ★ D18 B/21 ★BR 7806-593

Tanning of leather - with treatment applied to both sides

DE MELLO C A 04.10.78-BR-006593
(10.04.79) C14b-01

SHKG ★ D18 39218B/21 ★DT 2750-590

Porous filter paper for cigarette filters - consisting of criss/crossed vegetable fibres bonded by a synthetic material

SCHOELLER & HOESCH KG 11.11.77-DT-750590
A88 F09 P15 (17.05.79) A24c-05/50 A24d-01/04 B01d-39/18 D21f-11/14

A porous filter paper based on unbeaten or slightly beaten vegetable fibres has at at least some of the crossing points of the fibres a synthetic reinforcement which bonds the fibres.

The filter paper is intended for cigarette filters. It combines high porosity and homogeneity with good mechanical strength.

The synthetic material pref. has a softening point of 80-150°C and forms 15-50 wt.% of the filter paper. Claimed synthetic materials are polyethylene, polypropylene and vinyl chloride-vinyl acetate copolymers. 11.11.77 as 750590 (18pp510).

USMC D18 95567X/51 =GB 1546-217
Continuous handling of hides and skins - esp. dehairing of the whole skin in a single automatic operation
USM CORP 28.05.75-DT-523555
*(23.05.79) *NL7605-708 C14b-01/02*

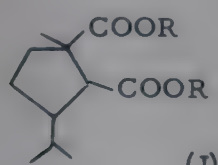
A machine for processing hides (and skins etc.) comprises processing units each comprising a cylinder tool and roller arranged to grip the hide to be processed and to draw it past the cylinder tool. A first portion of the hide is processed by a first processing unit and the remaining portion of the hide is then processed by the second processing unit. At the time of commencement of the processing of the hide by the first processing unit, the hide is gripped also by the roller of the second processing unit. 27.5.76 as 022009 (—pp1363)

RIZZ- D18 13265Y/08 =GB 1546-522
Dry press for wet hides with power cylinders - for felt carrying roll pressure adjustment and hinged braces for easy access
RIZZI & C SPA 03.08.75-IT-026874
*+P71 Q76 (23.05.79) *DT2635-010 +F26b-13/28*

An endless belt press for drying wet hides comprises an endless belt disposed under tension between upper and lower belt support rollers. Thrust devices act against the support roller for the lower belt to displace the latter towards the upper belt support roller. Bracing members are provided to provide a guide for the displacement of the end supports of the support roller for the lower and upper belts 2.8.76 as 032091 (9pp1363)

NISB ★ D18 39595B/21 ★J5 4046-751
1-Methyl-3-isopropyl-cyclopentane-1,2 di:carboxylic acids - and ester(s), useful as taste improvers and aromas for tobacco
JAPAN TOBACCO & SALT PUB 22.09.77-JA-113212
E15 P15 (12.04.79) A24b-03/12 C07c-51/48 C07c-61/06 C07c-69/74

Aroma and taste-improving agent for tobacco comprises the novel cpds. of formula (I) (where R is H, CH_3, C_2H_5 or C_3H_7).



(I)

(I) are yellow oily cpds. 1-methyl-3-isopropyl-cyclopentane-1,2-dicarboxylic acid has a green note similar to vegetables. The alkyl esters of the cpd. have have an aroma similar to fresh oranges. Cpds. are added in amts. of 0.0001-0.01% w.r.t. tobacco leaves. 22.9.77 as 113212 (4pp136)

BARO/ ★ D18 B/21 ★IT 1029
Fish skin tanning
BARON G 25.02.75-IT-085527
(10.03.79) C14c

STUD D18 17339U/13 =US 4153
Nicotine removal from tobacco by extraction - preceded
temporary removal of aroma substances
STUDIENGES KOHLE MBH (HAG -) 23.08.71-DT-142205 (00.00
DT-043537)
*P15 (08.05.79) *DT2142-205 +A24b-03/14*

Selective aroma preserving extn. of nicotine from tobac
with normally gaseous solvents is claimed where tobacc
is extracted with solvent in presence of ≥10 wt.% moist
(w.r.t. tobacco) either in the liq. state or at 65-300 atn
or in the supercritical state at the critical temp. to 100
at 70-150 atmos.Pref. moisture content of tobacco is ≤
wt.%. Extn. solvent is pref. CO_2, Ar, SF_6, lower halogenated hydrocarbon, or N_2O. Other processes in which
initial dry extn. is performed to remove mainly aroma
stituents, followed by wet extn. as above to remove nicotine and then returning the aroma constituents to the tobacco are also claimed. 23.8.73 as 390967 (+2.9.71-
177220) (10pp963)

DAIL D18 42906W/26 #US 4153-0
Cellulose acetate cigarette filters - impregnated with levulinic ac
ester plasticisers
DAICEL KK 17.12.73-DT-362701 (11.07.75-US-595027)
*A97 E17 F04 P15 (A11 A88) (08.05.79) *DT2362-701 A24b-
+A24d-01*

Cigarette filter comprises a rod of cellulose acetate fibr
impregnated with 1-20 wt.% (based on fibres) of ethyl
levulinate. The filter has a hardness of <10 units after cu
ing at room temp. for 1 hr., the hardness being measure
by applying a load of 300 g. on a sample rod by means of
disc having a dia. of 12 mm., for 10 secs. and measurin
the depth of indentation formed in the sample rod. A hard
ness unit is equal to 0.1 mm.

Pref. the rod contains 3000-100000 cellulose acetate filaments each having a size of 1-16 denier. The ethyl levulinate has good plasticising properties and improves the taste and flavour of the cigarette. 20.4.77 as 789083 (+11.7.75-US-595027) (4pp924)

See Also

D13 DS 2357403 D16 GB 1546328 D23 DT 2840823

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

NK D21 71372T/45 =DS 2119-231
idation dye compsn for human hair - contg thiourea dioxide,
ducing agent and org complex-forming cpd
HENKEL KG AUF AKTIEN (THE -) 21.04.71-DT-119231
*E16 (17.05.79) *DT2119-231 A61k-07/13*

ocess for tinting human hair comprises treatment with
soln., emulsion or cream contg. an oxidn. dye; reduc-
g agent, (0.1 - 3 wt.%); organic complexing agent, (0.1
2 wt.%); and the usual additives, esp. thiourea dioxide,
.05 - 2 wt.%).

A pref. reducing agent is thioglycollic acid or its sol-
le salts; and a prefd. complexing agent is EDTA or its
luble salts. 21.4.71 as 119231(4pp47)

AMA ★ D21 39581B/21 ★J5 4046-722
-Aminopropylamino) ethyl-dihydrodiene phosphorothioate
ono:hydrate - is prepd. by suspending the poly:hydrate crystals in
hanol, or crystallisation from a crude soln.
YAMANOUCHI PHARM KK 21.09.77-JA-113601
E11 (12.04.79) C07f-09/16

repn. of S-2-(3-aminopropylamino)ethyldihydrodiene
osphorothioate monohydrate, useful as radiation protec-
ng agent, comprises (A) suspending polyhydrate crystals
S-2-(3-aminopropylamino)-ethyldihydrodiene phosphoro-
ioate in ethanol and stirring the suspension at a temp.
rom ice-cooling to 60°C, or (B) subjecting an aq. soln. of
rude S-2-(3-aminopropylamino)ethyldihydrodiene phosph-
rothioate to crystallisation using, as solvent, ethanol
nd/or polyol.

If ethanol is used instead of methanol, methanol does not
emain in the crystals, giving only polyhydrate (principally
5 hydrate) crystals.

Pref. in (A) ethanol is used in an amt. 1-20, partic. 4-8
mes the polyhydrate crystals; and (B) ratio of water:
thanol:polyol is 1.5-3:4-5.5:3.5-5. 21.9.77 as 113601
5pp140)

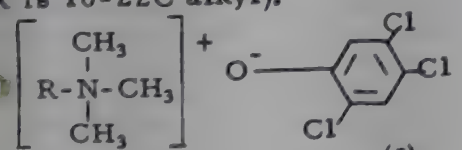
JIN ★ D21 39646B/21 ★J5 4046-843
air tonic - contains acetyl methionine, serine, pyridoxine and
yridoxal-phosphoric acid or pyridoxamine phosphoric acid
AJINOMOTO KK 22.09.77-JA-114261
B05 C03 E19 (13.04.79) A61k-07/06

he hair contains acetyl-methionine and serine as the
najor ingredients and pyridoxine, pyridoxal-phosphoric
cid or pyridoxamine-phosphoric acid as aid.

The tonic shows hair-growing activity on human beings
nd on rabbits, foxes, minks, sheep, etc. It improves
he glossiness of hair of above animals, cattle, pets, etc.
2.9.77 as 114261 (3pp5)

ANE ★ D21 39647B/21 ★J5 4046-844
air rinsing compsn. - comprises quat. ammonium salt contg. 2,4,5
ri:chloro:phenate anion, dry egg white, humidifying agent and
vater
KANEBO KK 22.09.77-JA-114353
E14 (13.04.79) A61k-07/08

rinsing compsn. contains quat. ammonium salt (I), dry
gg white, humidifying agent and water. Opt. nonionic sur-
actant and oily substance are added to the compsn. (where
R is 10-22C alkyl).


(I)

The compsn. is a homogeneous transparent liquid or the homogeneous emulsion and is excellent in preservative property. It gives protecting activity
emollient activity, softness, sliding property, good comb-
ng property, and touch, durable antibiotic activity, etc. to
hair.

As nonionic surfactant polyoxyethylene-higher alkylether and/or glycerin-mono-higher fatty acid ester can be used and they are used 0.2-1 w/w% in the compsn. As oily substance higher alcohol and/or liquid hydrocarbon can be used and they are used 1.0-5 w/w% in objective composition. Quat. ammonium salt (I) and egg white are used 1-5 w/w% in the compsn. respectively. As humidifying agent glycerin, propyleneglycol, dipropyleneglycol, 1,3-butyrene-glycol and hexyleneglycol can be used above or together and they are used at 1.5-5 w/w% in the compsn. 22.9.77 as 114353 (5pp5)

OZAW/ ★ D21 39648B/21 ★J5 4046-846
Non-flammable manicure remover - composed of hydrophilic organic solvent which can dissolve nitrocellulose, and water
OZAWA M 19.09.77-JA-111638
E19 (13.04.79) A61k-07/04

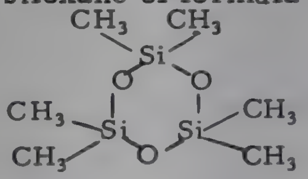
Nonflammable manicure remover is composed of 90-50 pts. wt. of (a) ≥ 1 hydrophilic organic solvent which can dissolve nitrocellulose easily and has b.pt. $>$ 100°C or the mixt. of (a) the hydrophilic organic solvent and (b) the hydrophobic organic solvent which can dissolve nitrocellulose and has b.pt. $>$ 100°C and 10-50 pts. wt. of water.

The manicure remover can be made nonflammable by combining water in hydrophilic organic solvent or the mixt. of hydrophilic organic solvent and hydrophobic organic solvent. The remover is odourless and does not injure nails.

As the organic solvent (a) lactones (e.g. γ-butyrolactone and γ-valerolactone), acid amides (e.g. tetramethylurea), esters (e.g. methyl-lactate) and alcoholethers (e.g. methyl-cellosolve) can be used. As the organic solvent (b) 3-methoxybutylacetate, 2-methoxyethyl-acetate, 2-ethoxyethyl-acetate, butylacetate, amylacetate, diethyloxalate, diethylmalonate, butyllactate and butylcellosolve can be used. 19.9.77 as 111638 (4pp5)

SHIS ★ D21 39649B/21 ★J5 4046-847
Cosmetics contg. hexa:methyl-cyclo:tri:siloxane - as volatile component, enabling cosmetics to be solidified
SHISEIDO KK 22.09.77-JA-114256
E11 (13.04.79) A61k-07/46

The cosmetics contain 20-99 w/w% of hexamethylcyclotrisiloxane of formula (I)


(I)

In the case of deodorants and aromatisers, they can be made solid by replacing 80-100 w/w% of the alcohol with (I). In the case of make-up cosmetics contg. a volatile oil as the major component they can be made as a solid stick by replacing 70-100 w/w% of the volatile oil with (I). Usually, cosmetics can be made solid by using $>$ 20% (I) as the solid oil component. When 5-70 w/w% of (I) is used with fluid oil component, the cosmetics can be made as a solid, cream, emulsion, etc. 22.9.77 as 114256 (6pp5)

SUNZ ★ D21 39705B/21 ★J5 4047-700
Compsn. for testing the activity of dental caries - contains a sugar and a pH indicator
SUNSTAR HAMIGAKI KK 21.09.77-JA-113749
B04 E24 R16 (14.04.79) G01n-31/22 G01n-33/16

The liq. compsn. contains 2.5-40 wt.% of sugar (sucrose, glucose, fructose, etc.) and 0.0001-0.05 wt.% pH indicator which discolours in the range pH 5-7 (e.g. resazurin, lacmoid, methyl red or alizarin), and being pH 6.5-7.

The activity of dental caries (i.e. the state of its progress or the possibility of it being caused) can be simply, clearly and rapidly judged. As the compsn. contains no nitrogen source, such as yeast extract, it hardly putrefies. 21.9.77 as 113749 (6pp50)

GRAC ★ D21 40549B/21 ★US 4153-680
Dentifrice contg. silica hydrogel having specified water content - as cleansing and polishing agent
GRACE W R CO 18.11.77-US-852758 (05.02.76-US-655601)
A96 (08.05.79) A61k-07/16

The dentifrice contains 5-50 wt.% of a hydrous silica gel contg. 17-32 wt.% water, and having particle size 2-30 um. The dentifrice has a radioactive dentine abrasion value of 400-705.

The gels are esp. useful in translucent or transparent dentifrices, where they give good clarity. They have good polishing properties, and high bulking value, and do not absorb large amts. of other dentifrice components. 18.11.77 as 852758 (5pp955)

YAMA D21 16156A/09 =US 4153-681
Cold permanent waving compsn. - contg. lower alkyl ester of cysteine or corresp. inorganic salt
YAMANOUCHI PHARM KK (NIRI- YAMA) 19.08.76-JA-098897
*A96 E16 (08.05.79) *DT2658-424 A61k-07/09*

Compsn. for permanent waving of hair consists of an aq. soln. contg. 3-10 wt.% of a lower alkyl ester of cysteine or a mineral acid salt thereof and having a pH of 6.0-10.0, and a penetrant, ethylenediaminetetraacetate as stabiliser, a wetting agent, a viscosity increasing agent, a perfume, a colouring agent, an emulsifier and/or an antihistamine.

The compsn. has mild activity to hair and skin, can be stable, preserved for a long period, causes no deposi
of undesirable crystals as encountered in the use of
cysteine, and provides a natural wave of hair having n
al lustre and full pliability. 8.8.77 as 822717 (3pp984)

HENK D21 52400W/32 =US 415
**Skin protection compsn contg polybasic ether carboxylic ac
which promote skin hygroscopicity and flexibility**
HENKEL KG AUF AKTIEN 29.01.74-DT-404047
*E17 (E12) (08.05.79) *BE-824-735 +A61k-31/22*

A skin-care and protection agent is prepd. for warm-
ed animals.Compsn. contains 1-20 wt.% ≥1 polyetherc
boxylic acid cpd. of formula R_1OCH_2COOM, where M i
alkali(ne earth) metal, lower alkyl ammonium, lower
anol ammonium and/or their mixts.

R_1 is 1-8C (opt. substd.) alkyl. Subsits. are carbox
hydroxyl, or $-O-CH_2-COOM$. Compsn. must contain ≥
carboxyl gps. per molecule. Remainder of compsn.is
cosmetic excipients for the care and protection of the

Compsn. is applied topically to the skin in a safe bu
effective amt. as moisturising agent of a cosmetic moi
ing compsn. 28.1.75 as 544809 (5pp931)

See Also

D13 US 4153732 D16 DT 2849183 D25 DT 275073
D25 DT 2750732

D22 : BANDAGES; DRESSINGS

WEIS/ ★ D22 39146B/21 ★DL -134-839
Sterilising thermo-labile, esp. medical and pharmaceutical equipment - with formaldehyde used as mixt. with air and steam in evacuated compartment
WEISS H 08.03.78-DL-204033
P34 (28.03.79) A61l-13/02

Finely-divided atmospheric air is passed through a heated HCHO soln. in which it is heated and enriched with a const. water and HCHO quantity. The HCHO -steam-air mixt. is passed into an evacuated sterilising compartment until pressure equilibrium is set up. The HCHO-steam-air is then evacuated from sterilising compartment and passed through a water-bath into the free atmos.

This process is repeated at least once before the HCHO-steam-air mixt. is left, for a given time, as sterilising agent, in sterilising compartment at relative air humidity 60-80%. The sterilising compartment is then evacuated and rinsed, at least twice, with germ-free heated air, esp. at 55° C.

The process is used for sterilising thermolabile articles, esp. pharmaceutical and medical equipment. Time, energy- and HCHO consumption are minimised, sterilisation is guaranteed and neutralising after-treatments with toxic chemicals are obviated. Safe sterilisation can be effected even at low temps., e.g. 20° C. 8.2.78 as 204033 (8pp200)

HENK D22 24469W/15 =DS 2347-932
Epoxide/caprolactam/diamine addition prods - obtained by condensing caprolactam with alkylenediamines, then reacting with epoxides
HENKEL KG AUF AKTIEN 24.09.73-DT-347932
*C02 +P34 (17.05.79) *DT2347-932 A01n-09/20 C08g-69/48*

Antimicrobial prod. (I) is the addition prod. formed at 50-150 °C between ethylene oxide, propylene oxide or glycide and (B) the reaction prod. obtd. after 3-20 hrs. at ≯180 °C from 1 mol. N-alkylanediamine $RR_1N(CH_2)_nNH_2$ (where R is 8-18C aliphatic hydrocarbyl; R_1 is H or 1-4C aliphatic hydrocarbyl; and n is 2-6) and 1-10 mol. ε - caprolactam The molar ratio of (A) to N-alkylalkanediamine in (B) is 0.5-3:1.

(I) has good activity against bacteria, fungi and algae, with low toxicity and good dermatological acceptability. (I) is suitably used in disinfectants for households, dair
breweries, hospitals, as preservatives for cosmetics,
dyes, in water-cooling systems, swimming pools etc.
24.9.73 as 347932(9pp913)

SEAI D22 55585V/31 =DS 2402-
**Control of a physical parameter e.g. temp. - in an aggress
environment e.g. a steriliser for canned foodstuffs**
SOC ETUD APPL IND COMM 19.01.73-FR-001886
*R12 R14 R15 +R16 R26 (17.05.79) *DT2402-394 G01d-05/24*

A device for the determn. of a physical quantity in an ag
resive medium, for use in sterilization systems, includ
a detector which converts the physical quantity to an ele
trical signal. Its output is fed to a totally enclosed heat-
insulated casing which contains an electrotronic circuit,
an analog/digital converter, a digital store, a timer and
power supply.

This enables a sequence of consecutive readings to be
stored digitally which facilitates measurement in places
poor accessibility (in tins), 18.1.74 as 402394(11pp39)

DEGS D22 52665W/32 =DS 2403-2
**Iodophore disinfectant compsn. of high active iodine content
contains a poly-carboxylic acid and-or polycarboxylate as t
iodine-solubiliser**
DEUTSCHE GOLD & SILBER 24.01.74-DT-403225
*A97 P34 (17.05.79) *DT2403-225 A61l-13*

Prepn. of non-foaming iodophores with 7-26% active I_2
comprises mixing I_2, (10-30 wt. %), with an aq. soln. (9
70 wt. %), contg. (a) polycarboxylic acids and/or their sa
(15-25 wt. %), having ≥ 65 COOH or COO^- gps. per 100
monomer units, with an average degree of polymerisati
10-500; (b) an alkali metal iodine and/or NH_4I, or a lowe
alkanol, (0-20, pref. 7-14 wt. %); (c) a substantially
nonvolatile polybasic mineral acid and/or hydroxycarbox
lic acid, (0-20, pref. 7-11 wt. %), which does not reduce
I_2 ; and (d) water, (to make 100 wt. %). These component
are mixed at 50-120 °C (pref. above 70° in a sealed vess
for 0.75 - 15 hr., and excess solid I_2 is removed.

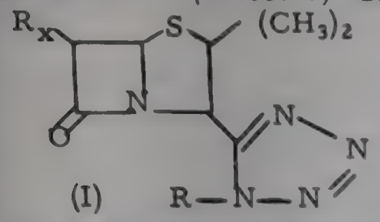
The prods. are used as disinfectants. 24.1.74 as 4032
(8pp47)

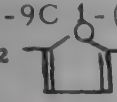
Z D22 29076W/18 =DS 2462-675

Amino-2,2-dimethyl-3-(tetrazol-5-yl)-penam derivs. - ibacterials used as feed supplements, therapeutics, disinfectants d intermediates

PFIZER INC 12.03.74-US-450435 (17.10.73-US-407097)

*B02 C02 E13 (17.05.79) *BE-821-163 C07d-499*



New 3-(5-tetrazalyl) penam derivs. (II) and salts are very effective for treating bacterial infections in mammals. In the formula, R_x is amino (opt. substd.); R s H, 3-8C alkaloyloxymethol, 4-9C 1-(alkanoyloxy) - ethyl r a gp. - $CH_2.C_6H_3.R_1R_2$, $-CH_2$  $-R_3$ - CH_2CH_2Y or C(O)OR_4; R_1 is 1-6C alkoxy, benzyloxy, or OH; R_2 is H r 1-6C alkoxy; R_3 is H or methyl; R_4 is 1-6C alkyl; and is 2-7C alkoxycarbonyl.

Specific (I) are 6-(triphenylmethylamino)- 2,2 - dimethyl -3-(1-(4-methoxy-benzyl)-tetrazol-5-yl)-penam, 6-mino-2,2-dimethyl-3-(5-tetrazolyl)-penam, and 6-amino -2,2-dimethyl-3-(1-(4-methoxybenzyl)-tetrazol-5-yl) enam. 17.10.74 as 462675(13pp913)

HOLK ★ D22 39185B/21 ★DT 2750-233

Cleaning bottle filling tubes - using rinsing fluid container clipped to iller valve

HOLSTEIN & KAPPERT MASC 10.11.77-DT-750233

Q39 (17.05.79) B67c-03/22

The filler tubes of bottle filling machinery are cleaned and sterilised by a cup, containing a rinsing fluid, which is clipped by a U-staple to the filler valve. A second cup can be moved by a spring against parts of the filler valve and forms an enclosed space around the filler tube,

This simplifies the daily cleaning and sterilisation of the filler tubes and does not require the machinery to be stopped. 10.11.77 as 750233 (6pp39).

ETHI ★ D22 39387B/21 ★DT 2849-785

Absorbable surgical suture filament and prosthesis material - contains lactide and glycolide block copolymer coupled by ester unit

ETHICON INC 16.11.77-US-852185

A96 F01 (17.05.79) C08g-63/76

Lactide-glycolide block copolymers, (A), contg. 50-75 wt.% glycolide-derived units comprises (i) a 1st powder, (I), consisting of polylactide or of a lactide/glycolide copolymer contg. ≥60 wt.% lactide-derived units, (ii) a 2nd polymer, (II), consisting of polyglycolide or of a lactide/glycolide copolymer contg. ≥80 wt.% glycolide units, and (iii) an ester coupling unit, (III), linking (I) and (II) and having formula -OC-X-CO- (where X is an alkylene or arylene gp.). (A) have inherent viscosity > 1 (measured in 0.1% soln. in hexafluoroisopropanol at 25°C), m.pt. >160°C and crystallinity >15%.

(A) may be melt-extruded to continuous absorbable suture material filaments or worked to absorbable surgical prostheses. (I) are esp. copolymers contg. 60-80 wt.% L(-)- or D(+)- lactide-derived units and 20-40 wt.% glycolide-derived units. (II) are esp. copolymers contg. 5-20 wt.% L(-)-lactide-derived units and 80-95 wt.% glycolide-derived units. (III) pref. has formula -OC-C_6H_4-m-CO-. 16.11.78 as 849785 (28pp200).

SAIN- ★ D22 39391B/21 ★FR 2400-356

Sanitary pad fastened by an adhesive - remains in position displaceable neither longitudinally nor transversely on its tape

SAINT-DENIS SOFACO 16.08.77-FR-025077

P32 (20.04.79) A61f-13/16

The line or lines of adhesive bonding the edges of a strip of non-woven fabric forming the envelope for the absorbent wadding of a sanitary pad is/are used also to ensure that the pad is displaced neither longitudinally nor transversely during use.

The adhesive applied is aligned and close to the long axis of the pad in the form of a continuous or discontinuous pattern of straight or curved lines. This pattern, repeated, periodically is symmetrical to but not entirely parallel to the axis of the pad.

There may be two lines of adhesive and these may inter-sect each other and/or the axis of the pad. 16.8.77 as 025077 (9pp1014).

ZAMI D22 17637A/10 =GB 1546-295

Benzalkonium chloro-iodide - useful as an antibacterial and antifungal agent

ZAMBELETTI DR L SPA 07.02.77-IT-041006

*B05 C03 P34 (23.05.79) *BE-858-321 A61k-31/14 A61l-13 C07c-87/30*

A new iodinated deriv. of benzalkonium chloride of average molecular formula $C_{22}H_{40}O_2IN$ (I) has antiseptic and disinfectant action.

(I) is prepd. by reacting benzalkonium chloride in an aq. medium with at least a stoichiometric amt. of I_2 and at least a stoichiometric amt. of Cl_2, both of which are used as such or generated in situ. Pref. a large excess of Cl_2 is used. 1.9.77 as 036575 (5pp997)

FELL/ D22 77498Y/44 =GB 1546-480

Solid compsn. contg. dialdehyde adsorbed on vehicle or support - opt. with alkalising agent used to form biocidal liquid solns.

FELLOWS A N 17.01.77-GB-001747 (26.04.76-GB-016887)

*A97 E17 P34 (23.05.79) *BE-853-920 A61l-13*

Solid compsn. for use in making up a microbiocidal soln. or dispersion comprises (a) a 2-6C satd. dialdehyde absorbed and/or adsorbed on inorganic or organic carrier material(s); and (b) an alkalinating agent or an agent capable of yielding an alkalinating agent on admixture with a solvent for the dialdehyde.

The carrier material is capable of adsorbing and/or absorbing the dialdehyde to give a dry free-flowing particulate material that on subsequent admixture with a solvent for the dialdehyde releases the dialdehyde. The aldehyde is pref. glutaraldehyde, malonaldehyde, succinaldehyde, adipaldehyde or glyoxal. The carrier material is e.g. a natural or synthetic polysaccharide, a cellulose deriv., Na sulphate, diatomaceous earth or fumed silica.

Solns. or dispersions prepd. from the solid compsn. are useful for disinfecting or sterilising articles or surfaces. 18.4.77 (15pp927)

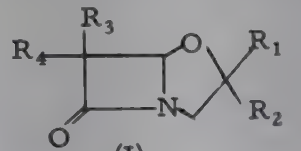
BEEC D22 07566Y/05 =GB 1546-569

Aza bicycloheptanes inhibitors of beta:lactamase - useful in antiseptic and disinfectant solns.

BEECHAM GROUP LTD 13.10.75-GB-041888 (29.07.75-GB-031640)

*B02 (23.05.79) *BE-844-533 A61k-31/42 C07d-498/04 +C07c-59/02 C07c-101/30 C07c-153/05 C07d-205/08*

New 1-oxa-1-dethiapenicillins, their salts, esters and lactone derivs., are of formula (I):



(I)

In (I) R is H, alkyl, phenyl, alkenyl, alkynyl, acyl, carboxylic acid (ester) gp., or substd. alkyl; R_2 is H or alkyl; R_1 and R_2 may together form cycloalkyl; R_3 is H, Cl or Br; R_4 is H, halogen, azido or amino.

The penicillin derivs. are able to inhibit certain β-lactamase enzymes and are useful in antiseptic and disinfectant solns. 22.7.76 (34pp910)

LIOC ★ D22 39633B/21 ★J5 4046-818

External antiphlogistic analgesic drugs - contg. glycol salicylate and higher fatty acid ester

LION DENTIFRICE KK 21.09.77-JA-113611

B05 (13.04.79) A61k-09/06

The drugs use glycol salicylate as antiphlogistic antalgic main drug and also contain higher fatty acid ester pref. esters of 8-25C fatty acid with 1-25C alcohol.

The drugs may be fixed with suitable odour and have great percutaneous absorbability and excellent continuity. 21.9.77 as 113611 (5pp69)

TOKE ★ D22 39806B/21 ★J5 4047-876

Corona discharge appts. for ozonisation of air etc. - comprises spaced dielectric plates in a metal casing

TOKYO SHIBAURA ELEC LTD 22.09.77-JA-114271

E36 J03 (14.04.79) B01k-01 C01b-13/11

The appts. comprises a double walled casing defining a cooling jacket between the two spaced walls, and including a hollow partition wall to which a cooling liquid is introduced, and which divides the interior hollow space of the casing into two compartments, each compartment contg. spaced dielectric plate units, each including a thin-walled electric conductive layer embedded in the plate.

Air is subjected to the corona discharge caused between the opposite surfaces of each dielectric unit and opposed metal walls of the casing as it is passed through one compartment and then through the other compartment. Both faces of each dielectric unit are used for corona discharge. 22.9.77 as 114271 (3pp47)

AMHP D22 35211A/20 =US 4153-052

Orthopaedic bandage impregnated with thermoplastic soln. - is held ready for use in the container in which it is prepd. (NL 5.5.78)

AMERICAN HOME PROD CORP 22.08.77-US-826277 (02.11.76-US-737944)

*A96 P32 Q34 +P34 (08.05.79) *DT2748-810 A61f-13/04 A61l-15/07 B65d-85/67 +B65d-77/04*

An orthopaedic cast package is prepd. comprised of a vapour proof container contg. a smaller cylindrical roll of orthopaedic tape wetted with a soln.of a thermoplastic polymer in a non-toxic volatile solvent with concn. $\geqslant$20 wt.%. The tape roll is disposed in a spaced relationship away from the sides and bottom of the container which is open at the top.

Package consists of an outer container having a bottom wall, a peripheral side wall extending upwardly, providing an open upper end, a closure and associated means for providing a vapour-tight seal on the upper end.

Cast syst. can be instantly applied and without resort to external means for effecting polymerisation of a strength-forming cast material. Syst. requires no ancillary equipment, nor any dipping or mixing prior to use. Gives strong, light weight, porous and water-resistant casts. 22.8.77 as 826277 (5pp931)

ALBA- ★ D22 40382B/21 ★US 4153-054

Tubular surgical drape for limb - of rolled stockinette with outer pull sleeve having side tear lines

ALBA-WALDENSIAN INC 04.11.77-US-848399

P32 (08.05.79) A61f-13

The surgical drape is of stockinette with an open end curled outwardly from the centre and rolled towards a closed end. A pull sleeve is rolled concentrically with the stockinette and has periodically interrupted cut lines along opposite sides to form tear lines so that the sleeve will separate when drawn along a limb to apply the stockinette.

The stockinette is pref. a seamless knit fabric and the sleeve is of thin tubular material with perforations to facilitate sterilisation of the drape. The stockinette and sleeve when rolled pref. form a doughnut-shaped roll with the sleeve free end tucked into the end opening. 4.11.77 as 848399 (4pp1358)

NILL- D22 08450B/05 =US 4153-055

Compsn. based on plastic material for para surgical uses - esp. in tampons for apparatus attached to the skin

NTHERN ILLINOIS RES 25.04.77-US-790797 (31.07.75-US-600847)

*A96 P34 +Q73 Q74 (A14) (08.05.79) *FR2388-565 +C08k-05/16 F23h-09 F23h-11/24 F24b-01/08*

Plastic compsn., for use in contact with the skin, is made by reacting a mixt. of 1 pt. acrylamide β-methacryloxyethyltrimethyl ammonium methyl sulphate copolymer (I) and $\leqslant$10 pts. acrylamide-sodium acrylate copolymer (II) per pt.(I), and 2-5 pts. wt. ethylene glycol per pt. of copolymers to form a gel. (II) contain 1-4 wt.% sodium acrylate. (I) contains 14-40 wt.% of the sulphate, the balance being acrylamide.

Material is used in annular sealing packs for an ostomy appliance having a central hole for inserting a surgical stroma through it, the pad being disposed between the appliance and the skin. 25.4.77 as 790797 (6pp963)

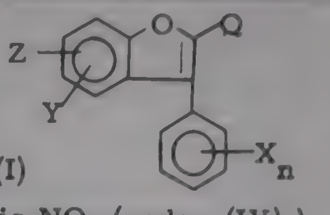
RIKL D22 83983A/46 =US 4153-619

2-Nitro-3-phenyl-benzofuran-aliphatic acids - useful as antimicrobials esp. antibacterials, antifungals and antiprotozoals

RIKER LABS INC 14.06.77-US-806526 (24.09.75-US-616277)

*B02 C02 E13 (08.05.79) *US4124-704 C07d-307/82*

Benzofuran cpds. of formula (I) are claimed. In the formula, X is halogen, lower alkyl, lower alkoxy, NO_2, phenyl, CN o CF_3. n is 0, 1 or 2. Y is CH_3, CH_3O, halogen or H. Z is -CH and Q is H, Br, I or NO_2 (cpds or Z is $-CH_2CN$ and Q is NO_2 (cpds. (III)); or Z is $-CH_2Br$ a Q is NO_2 (cpds. (IV)).



(I)

Cpds. are intermediates for 2-nitro-3-phenylbenzo analkanoic and -alkenoic acids, esters, amides, acyl ides and salts which are antimicrobials.All cpds. are fective against bacteria and some are effective against other microorganisms, including fungi, protozoa and t chomonads. 28.8.78 as 937073 Div.ex. 4124704 (+20.9.76-US-724717) (15pp992)

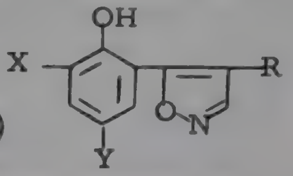
UPJO ★ D22 40556B/21 ★US 4153-

2-Isoxazol-5-yl-phenol and derivs. - useful as antifungals

UPJOHN CO 10.11.77-US-850213 (01.04.74-US-457056)

C02 E13 F09 (08.05.79) A61k-31/42 C07d-261/08

2-Isoxazol-5-ylphenol and its derivs. of formula (I) are new:



(I)

In (I), X is H, 1-3C alkyl, or Br; Y is H, Cl or Br; and R H or 1-3C alkyl. (I) are antifu gals. In related patent US4153 (c.f. Der. 04051A/02) the 4-chromone oximes were erroneously described, and they have been found to be cpds. (I). They are esp. useful fo protecting organic matter, animals, plants,seeds. etc. 10.11.77 as 850213 C.i.p. 4065574 (+29.8.75; 12.8.76-US-608850; 713922) (8pp1248)

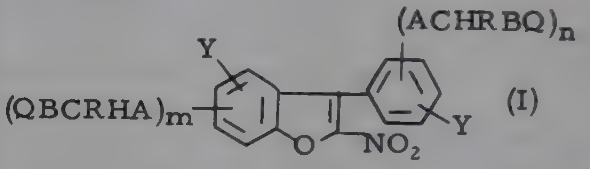
RIKL ★ D22 40559B/21 ★US 4153-7

2-Nitro-3-phenyl-benzofuran derivs. - useful as broad spectru antimicrobials

RIKER LABS INC 19.12.77-US-862015

B02 C02 (08.05.79) A61k-31/34 C07d-307/82

2-Nitro-3-phenylbenzofurans of formula (I) are new:



(I)

In (I) A is C-C bond, CH_2, CO, $CH_2CH(CH_2OH)$ o CH_2CO; R is H, 1-10C alkyl or C B is O, S, SO or SO_2; Q is H, NH_2, MeNH, n-pyrrolidino, 1-4C alkyl, MeCO, $C(NH_2)=NH$ or NO; m and n are each 0 or 1 and m n is 1 or 2; X is H, Me, F, Cl or Br; and Y is H, Me or Et. Provided that when Q is NH_2, NHMe or N-pyrrolidino B and R in the same moiety are respectively, SO_2 and H.

(I) are antimicrobials, with broad-spectrum activity against bacteria and fungi, including activity against Stre tococcus sp. isolated from dental caries, and they are no inactivated by horse serum and have good therapeutic ratios. Some cpds. (I) are active against the protozoan Trichomonas sp. (I) are esp. useful as therapeutic agents in man, as animal and bird growth promoters, and as disinfecting agents. Dose is <100 mg./kg. 19.12.77 as 862015 (10pp1248)

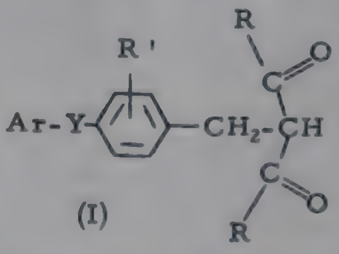
STER D22 18014B/10 =US 4153-71

4-Benzyl or cyclohexyl or 2-furfuryl heptane-3,5 di:one derivs. - ar antivirals used by topical application and as disinfectants

STERLING DRUG INC 06.09.77-US-830470

*B05 C03 (B03 C02) (08.05.79) *BE-870-103 A61k-31/36*

Aromatic diketones of formula (I) are new. In (I) Ar is Ph opt. substd. with 3, 4-methylenedioxy or with 1 to 2 of OH, 1-3C alkoxy or halogen. Y is CH_2, CH_2CH_2, -CH=CH-, -O- or $-OCH_2-$. R is 1-4C alkyl and R' i H or Cl.



(I)

(I) are useful as antiviral agents, they are prepd. by interacting appropriate aryl-aliphatic halide with an alkali metal salt of a β-diketone. A specific cpd. is 4-[4-(4-methoxybenzyl)benzyl]heptane-3, 5-dione. 6.9.77 as 830470 (9pp964)

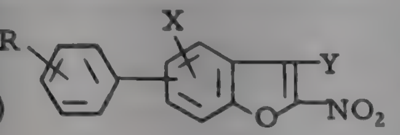
★ D22 40561B/21 ★US 4153-721

itro-3-substd.-phenyl-benzofuran derivs. - useful as broad ctrum antimicrobials

RIKER LABS INC 19.12.77-US-862014

B02 C02 (08.05.79) A61k-31/34 C07d-307/82

Nitro-3-substd.-phenylbenzofuran derivs. of formula and their salts are new:



I)

In (I), R is H, COOH, CH_2COOH, CH_2OH, hydroxyethyl or ureidomethyl; X is H or COOH; and Y is Me, Et, Ph or carboxyphenyl. Provid- that (a) only one of the following gps. is present: COOH, H_2COOH, carboxyphenyl, CH_2OH, hydroxyethyl or ureidoethyl; and (b) when R is CH_2COOH, Y is Me or Et. Also y COOH gp. present may be replaced by COCl or COO- -4C)alkyl.

(I) are antimicrobials with broad-spectrum activity ainst bacteria and fungi, including activity against reptococcus sp. isolated from an animal with dental ries. They are not inactivated by horse serum and have od therapeutic ratios. Some dpds. (I) are active against e protozoan Trichomonas sp. Cpds. (I) are therapeutic ents, animal and bird growth promoters and disinfecting ents. Dose is < 100 mg./kg. 19.12.77 as 862014 pp1248)

AHSC ★ D22 40350B/21 ★US 4152-783

Internally lubricated surgeons glove - with fine water-soluble innocuous powder embedded in glove surface

AMER HOSPITAL SUPPL CORP 19.10.77-US-843401

A96 P21 P31 (08.05.79) A41d-19 A61b-19

A surgeon's glove has the surface fitting against the hand coated with water soluble tissue innocuous powder having a particle size of 2-30 µ.

The powder is pref. $NaHCO_3$, NaCl or KCl, partic. $NaHCO_3$ with a particle size of 5-15 µ. Sufficient powder is bonded to the glove by partial embedding in the glove surface to provide lubrication for easy donning and prevent the powder shifting. The powder is applied to the glove, e.g. during a heat-cure cycle. 19.10.77 as 843401 (2pp1358)

see Also

D15 J7 9010039 D16 IT 1029318 D25 DT 2750731

D23: OILS; FATS; WAXES

ANK/ ★ D23 39044B/21 ★CA 1053-261

xtracting terpene(s) from Comptonia peregrina leaves - to obtain n extract used for flavouring food and esp. drink

JANKOWSKI C 17.11.77-CA-291128

E19 (D13) (24.04.79) C07c-49/27 C11b-09/02

The fraction contg. thujone and umbellulone is extracted rom the dried ground flowers in a sachlet type appts with nethanol. The methanol is evaporated and the residue is xtracted with ether. The solid fraction is then sepd,

The product is uses as a flavouring in food and drink, esp. alcoholic, and also in perfurreny. It provides a harmless natural flavouring, thuyane derivatures have recently been allowed for alcoholic drinks by the AOAC 17.1.77 as 291128 (5pp597)

HAAR D23 68205T/43 =DS 2115-551

Aromatic hydroxy aldehydes prepn - by simultaneous oxidn and decarboxylation of hydroxyarylgycolic acids

HAARMANN & REIMER GMBH 31.03.71-DT-115551

*E14 (17.05.79) *DT2115-551 C07c-47/56*

Prepn. of aromatic hydroxyaldehydes comprises simultaneous oxidn. and decarboxylation of 2-, 3- or 4-hydroxyarylglycollic acids using easily reduced metal salts in aq. acid soln. at pH below 5. The aromatic ring may have 1-6 C alkyl or alkoxy, halogen or other OH substitutes.

The prods. are isolated in excellent yields and are used in flavour and perfume compsns. 31.3.71 as 115551 (5pp047)

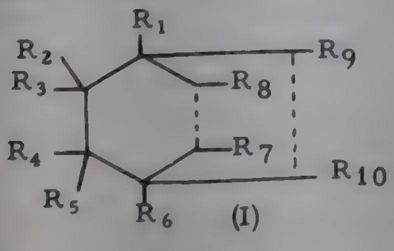
INTF D23 24567W/15 =DS 2443-191

Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - prepd. by reacting 5-oxo-1,3-cyclohexadienes with olefinic acetylenic dienophiles

INST TEXTILE DE FRANCE (INFL) 01.10.73-US-402157

*E15 (17.05.79) *DT2443-191 C07c-49/54 C11b-09*

Bicyclo 2,2,2 octane derivs. of formula (I) are used as perfume and aroma additives, (pref. in amounts 0.1 250 ppm).



(I)

In (I) the dotted lines denote a single or double bond; one of the gps. R_2 and R_3 is H or lower alkyl, and the other is H or OH, or R_2 and R_3 together represent =O ; R_4 and R_5 are each lower alkyl; R_1, R_6, R_7 and R_8 are each H or lower alkyl; one of the gps., R_9 and R_{10} is H and the other is H, Me, CN or COOMe; such that at least five of the gps R_1 to R_{10} denote substits. Pref. cpds. (I) have R_1 = R_2 = R_4 = R_5 = R_6 = Me ; and R_3 10.9.74 as 443191 (8pp47)

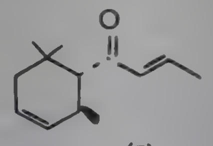
INFL ★ D23 39304B/21 ★DT 2840-823

Trans, trans-delta-damascone - useful as flavour and aroma

INT FLAVORS & FRAGR INC 15.11.77-US-851727

B07 E15 P15 (B05 D13 D18 D25) (17.05.79) A23l-01/22 A24b-15/04 A61k-07/46 C07c-49/61

Pure trans, trans-Δ-damascone of formula (I) and mixts. contg. > 50% (I) are claimed:



(I)

(I) is useful for imparting floral and fruity flavours and aromas to foodstuffs, perfumes, pharmaceuticals, tobacco products, detergents, etc.. Pref. the mixt. contains 80-98% of (I) and 2-20% cis, trans-Δ-damascone (Ia). 20.9.78 as 840823 (43pp367).

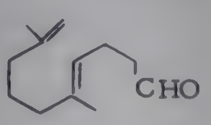
FIRM ★ D23 39369B/21 ★DT 2849-332

5,9-Di:methyl-deca-4,9-di:en-1-al - is perfume component with flowery, non-fatty note

FIRMENICH SA 16.11.77-CH-013987

E17 (17.05.79) A61k-07/46 C07c-47/20 C11d-03/50

5, 9-Diethyldeca-4, 9-dien-1-al of formula (I) is new:



(I)

It is made by standard Claisen reaction of 3, 7-dimethylocta-1, 7-dien-3-ol (II) with ethyl vinyl ether in the presence of Hg and Na acetates.

(I) is useful in perfumery to provide a flowery note resembling plants of the lily family, esp. the lily of the valley. It can be used alone or to enhance or modify odours without introducing a fatty note. 14.11.78 as 849332 (9pp1251).

FRIT- ★ D23 39409B/21 ★GB 1546-283

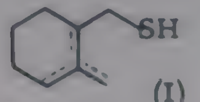
Isomeric cyclo:gernayl mercaptan cpds. - useful as perfume and flavouring components

FRITZSCHE DODGE & O 28.09.77-GB-040351

E15 (D13) (23.05.79) A23l-01/23 C07c-149/26

Cyclogeranyl mercaptans of formula are new:

(One dotted line is a double bond, the



(I)

other two are single bonds). (I) are made by reducing of hydrolysing corresp.cpds. having SH replaced by e.g. -SiCS.OEt; -S-C(NH)NH_2 or -S.CO.Ph.

(I) are flavour and fragrance components, esp. they are used to improve synthetic grape or pineapple flavours or peach fragrance compsns. They are effective at ≥0.003 ppm. 28.9.77 as 040351 (3pp1251)

AGEN D23 69027X/37 #GB 1546-397

Formyl-substd. phenoxy cpds. from methyl-substd. cpds. - by reaction with oxygen in a fatty acid or anhydride contg. a metal salt

AGENCY OF IND SCI TECH 18.02.75-JA-019458 (28.05.76-GB-022407)

*B05 E14 (23.05.79) *DT2605-678 C07c-45/10 C07c-47/56*

Prepn. of a formylated phenoxy cpd. (I) comprises oxidising a methylated phenoxy cpd. (II) in the liq. phase at elevated temp. with an O_2-contg.gas at superatmospheric pressure in the presence of a reaction solvent comprising a lower fatty acid or anhydrite or a halogenated deriv.thereof. Further, a catalytic soluble Co, Mn, Cr or Ni salt is present. The methyl gp. of (II) is thereby selectively converted to a formyl gp.

Pref. the reaction solvent is used at 0.3-18 moles per mole (II) and is acetic acid or anhydride. The catalyst is e.g. an acetate. (I) may be a perfume, medicament, or intermediate to other fine chemicals. 28.5.76 as 022407 (18pp945)

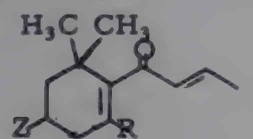
HASE ★ D23 39924B/21 ★J5 4048-737

Crotonyl-cyclohexenone cpds. - useful as long lasting floral perfumes

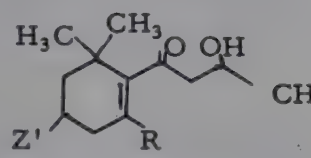
HASEGAWA KK 22.09.77-JA-114307

E15 (17.04.79) A61k-07/46 C07c-49/61 C07d-317/72

Crotonyl-cyclohexenone cpds. of formula (I) are new (where R is H or CH_3, and Z is O or 4,4-ethylenedioxy). Cyclohexenyl-β-ketols are of formula (II) (where Z' is 4,4-ethylenedioxy).



(I)



(II)

Crotonyl-cyclohexenones of formula (I) (where Z is O) are prepd. by subjecting crotonyl-cyclohexenone ketal of formula (I) (where Z is 4,4-ethylenedioxy) to hydrolysis in the presence of an acid.

The novel cpds. have unique perfume of floral type which lasts a long time. They can be easily synthesized from a material which is low in cost and readily available. 22.9.77 as 114307 (14pp75)

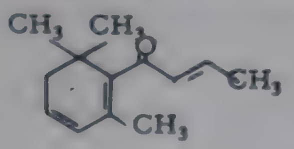
HASE ★ D23 39925B/21 ★J5 4048-738

Beta-damascenone and di:hydro beta-damascenone prodn. - by treating 4-hydroxy (di:hydro) beta-damascenone with sulphonic acid halide and treating prod. with alkali

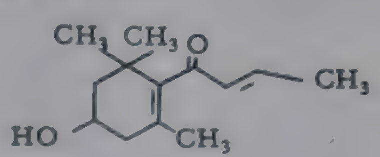
HASEGAWA KK 22.09.77-JA-114308

E15 (17.04.79) C07c-45 C07c-49/61

Prepn. of β-damascenone of formula (I) comprises treating 4-hydroxy-β-damascenone of formula (II) with a sulphonic acid halide in the presence of alkali and reacting the prod. with an alkali in the presence or absence of an alkali metal halide. The dihydro cpd., of formula (I; -CO-CH=CHCH$_3$ is -CO-CH_2-CH_2CH_3), is prepd. by treating the corresp. 4-hydroxy cpd. as above.



(I)



(II)

Prods. are prepd. in good yields and with high selectivity. 22.9.77 as 114308 (13pp75)

DAII D23 75854V/44 =J7 9009

Sepn. of wool fatty acids and alcohols - by saponification of fat and extn with two phase solvent

DAIICHI KOGYO KK 07.08.73-JA-088974

*B01 E17 (26.04.79) *BE-816-235 +C11b-11*

The wool fat is saponified with a multivalent metal (I) alkali metal (II) as a binary soap, the mixt. treated wi system contg. an aq. phase and a water immiscible ph and the phases sepd. by standing, salting out and centr -ing. The soap is derived from the hydroxide, carbon or lower alcoholate of (II) and oxide, hydroxide or wate sol. salt of (I). The amt. of (I) > 50% of the acid equi of the fat and <90% of the equiv. of the amt. of (II). T fat contains ≥ 5% free fatty acids. The process provid convenient sepn. of the soaps which tend to emulsify no mal solvents. 7.8.73 as 088974 C11b-11/00 (26.4.79) DAI ICHI KOGYO (5pp)(J50037802)

DAII D23 75854V/44 =J7 9009-

Sepn. of wool fatty acids and alcohols - by saponification of w fat and extn with two phase solvent

DAIICHI KOGYO KK 04.05.74-JA-050103

*B01 E17 (26.04.79) *BE-816-235 C11b-03 C11b-11 C11c-01*

The wool fat is saponified with a multivalent metal (I) or alkali metal (II) as a binary soap, the mixt. treated with system contg. an aq. phase and a water immiscible pha and the phases sepd. by standing, salting out and centrif -ing. The soap is derived from the hydroxide, carbonat or lower alcoholate of (II) and oxide, hydroxides or wate sol. salt of (I). The amt. of (I) > 50% of the acid equiv. of the fat and <90 % of the equiv. of the amt. of (II). T fat contains ≥ 5% free fatty acids. The process provide convenient sepn. of the soaps which tend to emulsify normal solvents. 4.5.74 as 050103 C11b-11/00, 3/00; C11c-00 (26.4.79) DAI ICHI KOGYO (6pp)(J50142602)

DAII D23 81929X/44 =J7 9010-0

Wool alcohol and wool fatty acid prodn. from wool wax - saponifying with alkali metal cpd, heating in solvent, and additi of base or salt

DAIICHI KOGYO KK 12.03.75-JA-030302

*B01 (01.05.79) *J51103-909 C11b-07 C11c-01 +C07c-27/02*

Wool wax is saponified by alkali metal cpd. The crude saponified prod. is warmed in the ketonic or ester type solvent in the presence of water to form the solubilised single phase. A kind of monoacidic base or the salt ther of is added to deposit and precipitate the soap component which is sepd. from solubilized single phase.

The amt. of the alkali metal cpd. is 8 wt.% or slig tly excess to wool wax, and water is 3-6 pts. wt. based the amt. of alkali metal cpd. The saponification is carried out at 80°C and under normal or elevated pressure. Pref. solvents are methyl ethyl ketone or ethyl acetate. 12.3.75 as 030302 C11c-1/00, C07c-27/02, C11b-7/00 (1.5.79) DAIICHI KOGYO KK (5pp)(J51103909)

METG D23 40283X/22 =SU -615-86

Oil recovery from plant material - by wetting and pref. admixin with de-oiled waste before solvent extn. (NL180576

METALLGESELLSCHAFT AG 14.11.74-DT-453911

*C03 (D13) (06.09.78) *DT2453-911 C11b-01/04*

Extn. of oil from plant raw material contg. > 25% oil takes place by (1) wetting the pre-purified, ground raw material with 1-10 wt.% liq. esp. water or aq. solns. mixing, and drying to optimum moisture content 4-15%, depending on type of solvent used, before (2) solvent extn. purified oil isused for human nitrition; waste yields a high-grade, protein-rich animal food. Material is treated carefully, to give high-grade oils and waste having a low oil content. Wetting selectively bonds fine powders an subsequent extn. is carried out without clogging and with improved flow.

Feste, T., Schmidt, H.J., Penk, G. Bul. 26/15.7.78. 3.11.75. as 188492 (4pp)

PE= ★ D23 40222B/21 ★SU -616-275

riginal scent - contg. coumarin, oil of lemon, isoamyl salicylate, smine, musk, hydroxy-citronellal di:methyl acetal benzyl licylate and specified oils

LVOV PERFUME COSMET 21.09.76-SU-404530
E19 (12.06.78) C11b-09

scent or cologne water contains (in wt.%): coumarin
.8-1.0, lemon oil 1.0-1.2, anisaldehyde 2.0-2.4, iso-
mylsalicylate 2.0-2.2, ylang-ylang oil 1.8-2.0, sandal
il 4.8-5.0, jasmine compsn. (pref."yasmina 31") 5.0-
.5, musk ketone 5.5-6.0, amber musk 8.0-9.0, 'Siren
' compsn. 8.0-8.5, hydroxycitronellal dimethyl-acetal
5.0-16.5, 'Deshima' compsn. 30.0-31.0 and benzyl
alicylate the remainder.

The compsn. has an original imaginative scent.
okolenko, I.T., Kartoshkina, A.I., Flis, E.P. Bul.
7/25.7.78. 21.9.76. as 404530 (2pp1047)

MENI/ D23 60441A/33 =US 4153-007

Wax taper candle with wood grain finish - made by passing suspended wick repeatedly through two opposed molten wax flows

MENIG J B 14.06.76-US-695430 (26.01.78-US-872611)
*P42 (08.05.79) *US4096-298 +B05c-05*

Candle mfg. appts. includes a table for supporting spaced depending wicks, the table being cyclically movable to move the wicks past a wax pouring station, a heated container for the molten wax, and a device to pour the wax down the wicks from the top so that a layer solidifies on the wicks each time it passes through the station. Excess wax is fed back to the container.

The device pref. includes a conduit and a pump for forcing wax through the conduit. Tapered candles of a controlled length are mfd. using less labour and materials. The parent patent claims the method of mfr. 26.1.78 as 872611 Div.ex. 4096298 (6pp1376)

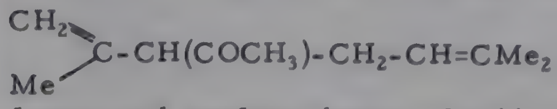
RHOD- ★ D23 40523B/21 ★US 4153-63

Prepn. of methyl-heptenone - from prenyl-substd. methy pentenone(s) with polyfunctional amine

RHODIA INC 29.11.77-US-855575
E17 (08.05.79) C07c-49/20

Methyl heptenone (I) is prepd. from a mixt. of prenyl substd. methyl pentenones (II) by treatment with an amine (III) at 10-250°. (II) are the isomers (IIa) and (IIb). (III) contains an amine gp., and also one of more other amine, OH, or alkoxy gps.

$Me_2C=C(COCH_3)-CH_2-CH=CMe_2$ (IIa)



$CH_2{=}C(Me)-CH(COCH_3)-CH_2-CH=CMe_2$ (IIb)

Process gives increased yields of (I) which is used in the formulation of perfumes and perfume bases. 29.11.77 as 855575 (10pp478)

RHOD- ★ D23 40524B/21 ★US 4153-634

methyl-heptenone prepn. - from prenyl substd. methyl-pentenone(s) with aq. polyfunctional amine

RHODIA INC 06.07.77-US-813381
E17 (08.05.79) C07c-49/04

Methyl heptenone (I) is prepd. from a mixt. of prenyl substd. methyl pentenones (II) by hydrolysis with H_2O in the presence of an aq. soln. of an amine catalyst $/R-(A-Z)_{m}/_{n}NH_{3-n}$ (III) at 10-350°C. In (III), m = 1-10; n= 1-3; Z = $\ngtr$20 aliphatic hydrocarbon, or phenylene or cyclo aliphatic hydrocarbon (both opt. substd. by aliphatic); A = NH or O; R = H, 1-6C alkyl, $R'NH_2$, or R'OH; R' = 1-6C alkylene.

Use of the catalysts (III) considerably increases the reaction rate and the yield of (I). (I) is used in the formulation of perfumes and perfume bases. 6.7.77 as 813381 (9pp478)

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

UNIL ★ D25 38987B/21 ★BE -872-104

Aq. bleaching compsn., esp. hypochlorite, coloured by pigment - supported by flocculated prod. dispersed in medium

UNILEVER NV 16.06.78-GB-027176 (18.11.77-GB-048108)
E19 (E37) (17.05.79) C09k C11d

The compsn., not having appreciable constraint at the elastic limit (i.e. <1 dyne/cm^2 at 20°C) comprises a particulate pigment which is stable to bleaching and which is maintained in suspension by a flocculated prod. dispersed in aq. medium.It is prepd. by pptg. the flocculated prod. in the aq. medium in situ in the normal manner.

The process enables a stable coloured prod. by using the flocculated prod. to keep the pigment in stable suspension. 17.11.78 as 872104 (25pp597)

BADI ★ D25 B/21 ★BR 7804-821

Liquid cleaning and bleaching compsn. - and process for cleaning hard surfaces

BASF WYANDOTTE CORP 27.07.77-US-819261
(10.04.79) C11d-03/39 26.7.78 as 004821

KONN D25 27049T/17 =DS 2167-169

Enzymatic compositions - in granular form, used in washing compositions

GIST-BROCADES NV 14.10.70-GB-048925
*(D16) (17.05.79) *BE-773-903 C07g-07/02*

''No further information has been published for this application.'' 13.10.71 as 167169 Add to 2151086, Div. ex 2151086

BADI D25 79605Y/45 =DS 2616-261

Acrylic copolymer sequestrants for washing agents - comprise copolymers of (meth)acrylic acid and hydroxyalkyl acrylates

BASF AG 13.04.76-DT-616261
*A97 (A14) (17.05.79) *DT2616-261 C11d-03/37*

Washing and cleansing comps. contains a copolymer of (a) acrylic acid and/or methacrylic acid, (35-80 mole%); (b) 2-4C hydroxyalkyl acrylates and/or their alkali salts, (20-65 mole %); and opt. (c) other compatible monomers,: (0-5 mole%), as sequestering agent and substitute for phosphates. 13.4.76 as 616261(5pp47)

COLH ★ D25 39187B/21 ★DT 2750-257

Compsn. for cleaning heat resistant articles - esp. glass ceramic oven-ware, contains acidic fluoride cpd. in non-aqueous medium esp. paraffin

COLLO GMBH 10.11.77-DT-750257
L02 (17.05.79) C11d-07/04

Cleaning compsn. esp. for articles made of thermally resistant material, contains, in a non-aq. medium, a fluorine cpd. (I) which releases HF or a fluoride in the presence of water. (I) is esp. NH_4, K or Na hydrogenfluorides and the medium is pref. a paraffin, esp. paraffin oil, slack wax, a mixt. of paraffin oil and hard wax etc.. The compsn. pref. also includes an emulsifier and a polishing agent.

The compsn. quickly removes thin metal oxide films but does not damage the underlying material. 10.11.77 as 750257 (11pp1251).

REWO ★ D25 39229B/21 ★DT 2750-731

Betaine derivs. contg. ricinoleic acid amide gp. - useful in skin care compsns., well tolerated by the eyes and mucosa

REWO CHEM FAB 12.11.77-DT-750731

E17 (D21 D22) (17.05.79) C07c-101/04 C11d-01/90

Betaines of formula $R_1NH-R_2-\overset{+}{N}(R_3R_4)-R_5-COO^-$ (I) are new. (R_1 is the residue of ricinoleic acid, R_2 and R_5 are 1-4C alkylene; R_3 and R_4 = C_nH_{2n+1}, $C_mH_{2m}OH$ or $(C_2H_4O)_xH$, n = 1-4, m = 1-3, x = 1-20).

Pref. cpds. have R_2 = 3C and R_5 = 1C alkylene; R_3 and R_4 = 1-2C alkyl or 2-3C hydroxyalkyl.

(I) are useful in skin-care compsns. e.g. cleaning compsns. or bath additives, and in disinfectants. They are better tolerated by the skin and mucous membranes than known betaines. 12.11.77 as 750731 (11pp1251).

REWO ★ D25 39230B/21 ★DT 2750-732

Mixed sulpho-succinate half ester prodn. - from jojoba oil by saponification, conversion to acyl-alkanol:amide then reaction with maleic anhydride and sulphite

REWO CHEM FAB 12.11.77-DT-750732 (00.00.70-DT-039745)

E19 (D21) (17.05.79) C07c-143 C11d-01/28

The parent patent describes a process for washing a mixt. of sulpho-succinates of formulae RO.CO.CHY.CHY'.-COOM (I) and R'CO.NR''.X.O.CO.CHY.CHY'.COOM (II) (R is residue of fatty alcohols from sperm oil or spermacetic oil. R' is residue of fatty acids from the same oils. X = ≥2C opt. branched hydrocarbyl; R^4 = H, (hydroxy)alkyl with the total no. of C in X and R'' = 2-6. M is an equivalent of a water-solubilising cation suitable for washing compsns.; Y=H and Y' = SO_3M or vice versa).

The method involves saponification or transesterification (with 1-3C alcohols) of the oil; converting the liberated fatty acid (or ester) to acylalkanolamides in presence of the liberated fatty alcohol, then reaction of the mixt. with maleic anhydride and a sulphite.

In this addn., jojoba oil (A) is used in place of sperm oil or spermacetic oil.

Prods. from (A) are generally equivalent to those from sperm oil which is now in short supply. In some respects they are superior e.g. reduced foaming power and lower swelling value in synthetic detergent soaps. 12.11.77 as 750732 Add to 2039745 (7pp1251).

UNIL ★ D25 39348B/21 ★DT 2848-892

Fabric softening compsn. for cotton and synthetic textiles - contains quat. ammonium salt and choline ester salt, giving improved antistatic effect

UNILEVER NV 16.11.77-GB-047691

A97 E16 F06 (17.05.79) C11d-01/62

Laundry-softening rinse compsn. based on quat. ammonium cpds. (I) additionally contains a choline ester salt of formula $(CH_3)_3\overset{+}{N}CH_2CH_2OCOR\ X^-$ (II) (where R = 6-24C alkyl; X=monovalent anion). (II) is pref. 0.5-25 wt.% of the compsn. which may also contain a soil-release agent (III), esp. a copolymer of polyethyleneterephthalate and polyoxyethylene glycol.

Compsns. are useful not only on cotton but also on synthetic textiles where they provide an improved antistatic effect. 10.11.78 as 848892 (12pp1251).

CHEM= ★ D25 40030B/21 ★SU -615-414

Synthetic detergent powder water content determination - includes treatment with DMF, sepn. of solvent and water mixt. and titration with Fischer's reagent

CHEM IND RES INST 06.01.76-SU-316369

R16 (05.06.78) G01n-31/16

Water content of synthetic washing powder is estimated quantitatively by treating test sample with organic solvent which is then distilled off together with water. The latter is then titrated with Fischer's reagent and the amt. of water is calculated from a formula.

The accuracy of the determination is improved if the organic solvent used in the test is dimethylformamide. Water of crystallisation can be estimated also by using above solvent.

Tretyak, M.G., Makovetskaya, L.I., Bukach, L.F. Bu 26/15.7.78. 6.1.76. as 316369 (3pp938)

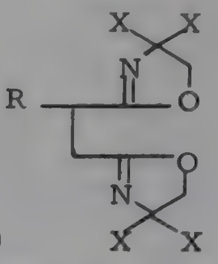
ESSO ★ D25 40498B/21 ★US 4153-5

lubricants and concentrates contg. bis-oxazoline cpds. - prepd. fro hydrocarbyl-substd. unsatd. di:carboxylic acid cpd. ar aminoalcohol

EXXON RES & ENG CO 30.07.76-US-710279 (27.03.74-U 455250)

E13 H07 M14 (08.05.79) C10m-01/32

Lubricating oils contg. 0.1-10 wt.% of a bis-oxazoline cpd. of formula (I):



(I)

(where R is an 8-49C hydrocarbon ra ical; each X is 1-3C alkyl or hydroxy alkyl, ≥1 being $(CH_2)_nOH$, where n = 1-3). Specifically, (I) is prepd. by reacting 1 mole of an R-substd. 4-10 C mono-unsatd. dicarboxylic acid, ester or anhydride (II) with 2 moles o an amino-alcohol of formula: $H_2N-C(X)_2-CH_2OH$ (III) at 140-240°C. for 0.5-24 hrs. with removal of 3 moles of H_2O. Also claimed are concentrates comprising 98-45 pts. wt. mine al lubricating oil and 2-45 pts. wt. (I).

(I) can be used as antirust agents, detergents, or dispersants for mineral or synthetic lubricants, petroleum fuels and oils for drilling purposes, and also as antifouling additives for refinery oil streams or turbine oils. 30.7.76 as 710279 (+6.12.74-US-530235) (-pp367)

UNIL D25 25248A/14 =US 4153-569

Liquid detergent compsn. - contg. tetra:potassium pyrophosphate as part replacement for sodium tri-poly:phosphate

LEVER BROTHERS CO 11.10.76-GB-042175

*A97 E12 (A18 A25 E34) (08.05.79) *BE-859-321 +C11d-09/14*

An aq. built liq. detergent compsn. comprises 3-12 wt.% anionic detergent, 2-8 wt.% soap, 0.5-5 wt.% nonionic detergent, 0.1-2 wt.% copolymer and 1-25 wt.% of a mixt. of sodium tripolyphosphate and tetrapotassium pyrophosphate. The copolymer is partially esterified with nonionic detergent and neutralised. Ratio of copolymer to nonionic detergent at partial esterification is 50:1-1:2.5.

Anionic detergent is potassium (10-18C straight- or branched-chain) alkylbenzenesulphonate. Soap is potassium salt of 8-22C fatty acid or its polymer. Nonionic detergent is ethylene- or propylene oxide condensation prod. of an organic hydrophobic gp. copolymer is of maleic anhydride with either vinyl methyl ether, ethylene or styrene having specific viscosity of 0.1-4.5 in 1 wt.% w.r.t. vol. soln. in methyl ethyl ketone.

Replacement of sodium tripolyphosphate by tetrapotassium pyrophosphate does not impair the phase stability of compsn. 5.10.77 as 839535 (1p931)

HENK D25 57018A/32 =US 4153-570

Low foaming aq. detergent concentrate - comprises a mixt. of soaps, nonionic and anionic surfactants and solubilisers (BE 31.7.78)

HENKEL KG AUF AKTIEN 01.02.77-DT-703998

*(08.05.79) *DT2703-998 +C11d-09/32*

Low foaming liq. aq. washing agent concentrate comprises (a) 5-12 wt.% of a linear sodium alkyl benzene sulphonate, with 10-13C in the alkyl chain and/or of a linear sec. sodium alkane sulphonate with 14-18C; (b) 2-6 wt.% of a linear sodium alkyl polyglycol ether sulphate with 10-16C in the alkyl chain and 1-3 ethylene glycol ether gps.; (c) 2-6 wt. % of a sodium or potassium soap of mainly satd. fatty acids with 12-18C, 50-90 wt.% of which have 6-18C; (d) 15-28 wt.% of a mixt. of ethoxylated alcohols, consisting of (i) 30-50 wt.% of linear prim. ethoxylated alcohols with 16-18C and 8-12 glycol ether gps. and (ii) 30-50 wt.% of linear prim. ethoxylated alcohols with 16-18C and 3-7 glycol ether gps., both of the ethoxylated alcohols having a ratio of satd. to mono unsatd. hydrocarbon residues of 1:4 to 4:1 and (iii) 10-30 wt.% of linear and/or 2-methyl substd.prim. satd. ethoxylated alcohols with 10-15C and 4-9 glycol ether gps.; (e) 2-7 wt.% of a fatty acid diethanolamide with 10-16C in the fatty acid residue; (f) 4-10 wt.% of a toluene, xylene or isopropylbenzene sulphonate the form of the sodium, potassium or triethanolamine t; and (g) 2-7 wt.% of 1-3C alkanol, and the remainder ter and opt. other conventional ingredients. The total ight of all the anhydrous components of the concentrate nounts to 40-65 wt.%.

The agent has a strong cleaning power and prevents de- sits on the heating elements of washing machines and on e wash. 30.1.78 as 873510 (7pp)

RT/ D25 02054A/02 =US 4153-625

at exchanger cooling of neutralised sulphonation mixtures - ding slurry of anhydrous sodium sulphate before cooling

BARTON B H (PROC) 01.07.76-US-701724

*E17 +Q78 (08.05.79) *BE-856-307 +C07c-141*

An organic sulphuric and/or sulphonic acid (I) is neutralised in the presence of excess sulph(on)ating agent (II) by (a) reacting (I) and excess (II) with a Na alkaline component to form a super-satd. soln. w.r.t. Na_2SO_4 formed during the reaction and (b) cooling the obtd. mass in a heat exchanger while introducing an aq. slurry of anhydrous $NaSO_4$, in an amt. sufficient to reduce the deposition of Na_2SO_4 on the surfaces of the heat exchanger.

Prods. are used as surfactants in detergent compsns. Downtime required for removal of Na_2SO_4 is reduced. 1.7.76 as 701724 (9pp992)

See Also

D23 DT 2840823

CPI INDEXES

ALERTING PATENTEE INDEX (II)

Weekly by section and overall, lists all current patents in patentee code order and, within a given patentee, in earliest priority date order. The first line gives patentee code, earliest priority date, patentee name, CPI classes and finally the current patent number. The second line gives the first part of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
   Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
   Bonding fluid for road marking strips - 60223X/32
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Not in Basic Abstracts Journal

CPI CLASS INDEX (IV)

Weekly only. Headings are all the CPI classes within the section to which an Alerting Bulletin relates, arranged in numerical order. Posted under each class heading is a list, in country then patent number order, of all basic or equivalent documents referenced or cross-referenced under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

BASIC NUMBER INDEX (V)

Weekly by section and overall, lists all entries by accession number. Each heading consists of the accession number in bold, followed by the CPI section letters. There then follows a list of all the family members, commencing with the basic and finishing with the current week's patent. For each family member the CPI week of issue is quoted, and a plus sign indicates that a multiple priority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                           49862X/26  *US 3963-65
  CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H0
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                      49433X/26  *DT 2554-327
  CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                           48076X/26  *CA -990-668
  CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
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In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX 1

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguishes accepted West German specifications (DAS) from the unexamined applications (OLS) which are given the norma DT code. in the case of Japan J5 represents the unexamined applications, and J7 the examined of the present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

AGAA 16.11.77 AGA HEATING AB D15 J01 *DT 2849-013
Rotary biological filter - 39358B/21

AGEN 28.05.76 AGENCY OF IND SCI TECH B05 D23 E14 #GB 1546-397
Formyl-substd. phenoxy cpds. from methyl-substd. cpds. - 69027X/37

AGEN 22.09.77 AGENCY OF IND SCI TECH A35 D15 J01 (A13 A17) *J5 4047-887
Oil adsorbent prepd. from kapok fibre mixt. - 39814B/21

AHSC 19.10.77 AMER HOSPITAL SUPPL CORP A96 D22 *US 4152-783
Internally lubricated surgeons glove - 40350B/21

AJIN 21.09.77 AJINOMOTO KK B02 D13 E13 *J5 4046-769
Intermediate for prodn. of rebaudioside-A - 39606B/21

AJIN 22.09.77 AJINOMOTO KK B05 C03 D21 E19 *J5 4046-843
Hair tonic - 39646B/21

ALBA- 04.11.77 ALBA-WALDENSIAN INC D22 *US 4153-054
Tubular surgical drape for limb - 40382B/21

ALBR 26.07.77 ALBRIGHT & WILSON LTD D25 =J5 4048-691
Conc. dilutable aq. surfactant compsn. - 14454B/08

ALHA/ 17.08.77 ALHAUSER E B07 D15 =FR 2400-488
Pyrogen-free sterile water prodn. by reverse osmosis - 16396B/09

ALLC 19.09.77 ALLIED CHEMICAL CORP A85 D15 J03 (A18 A91) #J5 4047-884
Bipolar membrane of polyolefin matrix and vinyl polymer surface - 82742Y/46

ALZA 28.01.75 ALZA CORP A96 B07 C03 D21 (A23) =J7 9010-037
Biodegradable ortho-ester polymers - 48032X/26

AMCY 25.01.74 AMERICAN CYANAMID CO B02 C02 D13 *US 4153-611
5,6,7,8-Tetra:hydro-4H-cyclo-hepta-(b)-thien-4-yl-ureas - 40515B/21

AMCY 14.02.77 AMERICAN CYANAMID CO A96 D22 F04 =DL -134-877
Tissue resorbable haemostatic surgical dressings - 60760A/34

AMHP 02.11.76 AMERICAN HOME PROD CORP A96 D22 =US 4153-052
Orthopaedic bandage impregnated with thermoplastic soln. - 35211A/20

AMOR- 05.10.77 AMER ORIG CORP D12 =NO 7803-359
Edible shellfish treatment with sodium sulphite and/or metabisulphite - 30031B/16

ANVR 20.07.73 AGENCE NAT VALORISATION D16 (D17) =IT 1029-309
Lacto serum conversion to galactose - 87281V/51

ASAG 11.11.77 ASAHI GLASS KK A85 D15 J03 (A14 A91) #DT 2750-599
Cation exchange resin of fluorinated polymer - 70573A/39

*ASKO- 16.11.77 ASKO-UPO OY D15 J01 *DT 2849-013
Rotary biological filter - 39358B/21

ASTR 19.02.75 ASTRA AB C03 D13 E13 =GB 1546-366
Ruminant feeds contg. lactosyl ureide deriv. as non-protein nitrogen - 06285A/03

ATLA- 13.09.72 ATLANTIC RES INST D16 E14 =CA 1053-260
Catalytic oxidation of lupulone to hulupone - 23185V/13

BADI 13.04.76 BASF AG A97 D25 (A14) =DS 2616-261
Acrylic copolymer sequestrants for washing agents - 79605Y/45

*BADI 27.07.77 BASF WYANDOTTE CORP D25 *BR 7804-821
Liquid cleaning and bleaching compsn. - B/21

*BARO/ 25.02.75 BARON G D18 *IT 1029-355
Fish skin tanning - B/21

BART/ 01.07.76 BARTON B H D25 E17 =US 4153-625
Heat exchanger cooling of neutralised sulphonation mixtures - 02054A/02

BATT 10.06.77 BATTELLE INSTITUT-E B04 D16 =J5 4046-892
In vitro biosynthesis of hormones, esp insulin - 02028B/02

BEEC 29.07.75 BEECHAM GROUP LTD B02 D22 =GB 1546-569
Aza bicycloheptanes inhibitors of beta:lactamase - 07566Y/05

BELN 17.08.77 LAB BELLON R B05 D16 =FR 2400-555
Ubiquinone 8,9 or 10 prodn. - 20252B/11

BELN 17.08.77 LAB ROGER BELLON B05 D16 =J5 4046-889
Ubiquinone 8,9 or 10 prodn. - 20252B/11

BERG 06.08.74 BERGWERKSVERBAND GMBH D15 =CA 1053-157
Removing organic pollutant from effluent - 72560W/44

*BEST- 10.11.77 MASCH FAB BESTA D15 *DT 2750-194
Bar screen garbage bunker - 39180B/21

*BLAS/ 15.11.77 BLASY L A92 D11 *DT 2751-078
Dual container for pasty foodstuff e.g. mustard mayonnaise - 39272B/21

*BOCC/ 12.03.75 BOCCALATTE M D14 *IT 1029-021
Vegetables peeling machine - B/21

BOEF 24.02.77 BOEHRINGER MANNHEIM GMBH A96 B04 D16 (A23) =DL -134-536
Protein, esp. enzyme, fixed to polyamide - 63398A/36

*BOHN/ 28.01.78 BOHNKE B D15 *BE -873-616
Installation for treating water by activated sludge process - 39027B/21

*BOJS/ 30.09.77 BOJSOE-JENSEN P D14 *DK 7804-313
Vegetable cleaning appts. - B/21

BONA/ 05.06.75 BONACINA R D13 =IT 1029-209
Fruit and peel preservation in syrup - 20436Y/12

BONA/ 05.06.75 BONACINA E D13 =IT 1029-210
Preservation of chestnuts - 20433Y/12

*BOSC 12.11.77 BOSCH-SIEMENS HAUS D15 *DT 2750-658
Water softening system for dishwashers - 39221B/21

BRDM 14.10.76 BIRD MACHINE CO D17 J01 =GB 1546-284
Rotary bowl coaxial screw conveyor centrifuge - 12040A/06

BRDM 14.10.76 BIRD MACHINE CO D17 J01 =GB 1546-285
Rotary bowl coaxial screw conveyor centrifuge - 12041A/06

*BRPE 05.11.77 BRITISH PETROLEUM LTD A88 D15 H01 J04 *NL 7811-021
Determining soluble biological cpds. in water with adsorption filter 39993B/21

BRTO 10.03.75 BOC INT LTD D15 =GB 1546-516
Waste water treatment - 12675Y/07

BUCL 14.04.75 BUCKMAN LABS INC A26 D15 F09 (A97 D22) =J7 9010-039
Water soluble cationic amine-epichlorohydrin polymers - 02061X/02

CANP 23.01.78 CANADA PACKERS LTD D13 E13 =US 4153-613
Ascorbic acid acetal and ketal derivs. - 84037A/46

*CARB- 17.08.77 CARBOXYQUE FRANCAIS D15 *FR 2400-489
Biological purification of waste water - 39394B/21

CARG- 11.10.78 CARGO FLEET CHEM CO D25 E19 F06 =GB 2007-734
Concentrate of quaternary ammonium cpd. and oily material 31587B/17

CARL- 04.02.74 CARLTON & UTD BREW D16 E12 =IT 1029-414
Isohumolone-metal complex and alkali metal cpd. beer-bittering compsn. - 40991W/25

CATA- 17.09.77 CATALYTIC GENERATOR A97 D13 #J5 4046-850
Chill prevention for banana underpeel - 70627Y/39

CELF- 11.08.77 CELFIL CO ESTAB D18 F09 =BR 7805-119
Mfr. of paper band for cigarette filter tips - 89704A/50

*CGMC- 03.02.75 CGM COST MECC SNC D12 *IT 1029-077
Vibro-massaging of boiled ham - B/21

CHEM 28.09.77 CHEM WERKE HULS AG D25 E17 =DK 7804-281
Aq. cleaning solns. contg. alkyl glycol ether sulphate(s) - 25905B/14

CHEM- 15.07.76 CHEMAP AG D16 =GB 1546-554
Animal and human tissue cells cultivator - 06659A/04

CHEM- 16.08.77 CHEMAP AG A96 D16 =FR 2400-556
Cultivating animal cells as monocellular layer - 16413B/09

*CHEM= 06.01.76 CHEM IND RES INST D25 *SU -615-414
Synthetic detergent powder water content determination - 40030B/21

*CHEN/ 09.06.76 CHENG C Y D15 J02 *US 4153-430
Liq.-gas contact appts. - 40436B/21

CHUS 22.09.77 CHUGAI PHARMACEUTICAL KK B04 D16 =J5 4046-758
Fatty acid ester(s) of hydroxy:naphthyl:azo benzene-sulphonate cpds. - 28138B/15

CHUS 22.09.77 CHUGAI PHARMACEUTICAL KK B02 C02 D16 =J5 4046-774
Antibiotic No.2-200 obtd. from Nocardia sp. ATCC 31319 - 26443B/14

CLBC 26.09.75 CALBIOCHEM B04 D16 J04 =GB 1546-616
Creatine phosphokinase isoenzyme differential assay - 94064X/50

COAG- 19.08.77 LA COMML AGRICOLA D14 =FR 2400-333
Mixing and distributing machine for farm animal fodder - 89679A/50

COAL 30.04.76 COAL INDUSTRY PATENT LTD D15 =US 4153-375
Increasing sludge settlement rate by agitation - 81485Y/46

COLG 10.08.77 COLGATE PALMOLIVE CO D22 =BR 7804-799
Baby's disposable napkin with adhesive securing straps - 87884A/49

COLG 17.08.77 COLGATE PALMOLIVE CO A97 D24 (A14 D25) =FR 2400-554
Soap tablet contg. fatty acid salt and interpolymer - 89696A/50

COLG 24.08.77 COLGATE PALMOLIVE CO A96 B06 D21 E37 =J5 4046-845
Heat releasing, two-tone flavoured dentifrice - 05992B/03

*COLH 10.11.77 COLLO GMBH D25 L02 *DT 2750-257
Compsn. for cleaning heat resistant articles - 39187B/21

CORG 14.09.77 CORNING GLASS WORKS D16 =US 4153-510
Composites of microbes bound to porous support - 24332B/13

*CORP 26.10.71 CPC INTERNATIONAL INC D16 (D17) *J5 4017-181
Glucose isomerase enzyme prepn. - 39458B/21

CORP 05.08.76 CPC INTERNATIONAL INC D16 (D17) =GB 1546-556
Inactivating the protease in alpha-amylase - 10283A/06

*CORP 21.11.77 CPC INTERNATIONAL INC A11 D17 *BE -872-116
Modified starch prepn. esp. using two centrifuge separations - 38989B/21

*CORP 23.01.78 CPC INTERNATIONAL INC D17 *BE -873-615
Conc. sugar syrup derived from starch - 39026B/21

DAII 07.08.73 DAIICHI KOGYO KK B01 D23 E17 =J7 9009-602
Sepn. of wool fatty acids and alcohols - 75854V/44

DAII 04.05.74 DAIICHI KOGYO SEIYAKU B01 D23 E17 =J5 0142-602
Sepn. of wool fatty acids and alcohols - 75854V/44

DAII 04.05.74 DAIICHI KOGYO KK B01 D23 E17 =J7 9009-603
Sepn. of wool fatty acids and alcohols - 75854V/44

DAII 12.03.75 DAIICHI KOGYO KK B01 D23 =J7 9010-008
Wool alcohol and wool fatty acid prodn. from wool wax - 81929X/44

DAIL 11.07.75 DAICEL KK A97 D18 E17 F04 (A11 A88) #US 4153-064
Cellulose acetate cigarette filters - 42906W/26

*DALL- 09.01.75 DALL'ARGINE E GHIRE D14 *IT 1029-095
Pasteurising appts. for containers holding semi liq. food prods. - B/21

*DALL- 09.01.75 DALL'ARGINE E GHIRE D14 *IT 1029-096
Continuous jar filling appts. - B/21

DASC- 02.01.75 DASCO SPA D22 J01 =IT 1029-316
Assembly for sterilising dialyser after blood treatment - 40024X/22

DCAF 05.10.77 DCA FOODS INDS INC D14 =NO 7803-363
Continuous treatment oven for food - 31850B/17

•DEAK 14.12.77 AKAD WISSENSCHAFT DDR B01 D16 E19 *DL -134-639
Hydroxylation of methylene gps. e.g. in a steroid - 39087B/21
•DEAK 08.03.78 AKAD WISSENSCHAFT DDR C03 D13 *DL -134-874
Biomass sepn. from hydrocarbon-contg. nutrient soln. - 39156B/21
DEGS 24.01.74 DEUTSCHE GOLD & SILBER A97 D22 =DS 2403-225
Iodophore disinfectant compsn. of high active iodine content - 52665W/32
DEGS 24.08.76 DEUTSCHE GOLD & SILBER D16 (D17 D18) =GB 1546-328
Stabilised lipase prepn(s). - 17903A/10
DEGS 20.09.76 DEUTSCHE GOLD & SILBER D15 E32 M13 (E13) =DS 2642-238
Copper pptn. from solns. contg. chelating agent - 23493A/13
•DEIS/ 07.03.78 DEISENROTH R D12 *DL -134-837
Food paste filling machine - 39145B/21
DEJI- 14.11.77 D E J INT RES CO A97 D13 =DT 2848-582
Caffeine removal from carbon di:oxide extracts - 37162B/20
•DMEL/ 04.10.78 DE MELLO C A D18 *BR 7806-593
Tanning of leather - B/21
•DUDA/ 01.02.78 DUDAR K D16 *DL -134-779
Accelerating the maturing of spirits - 39132B/21
DYNN 08.09.77 DYNAMIT NOBEL AG B04 D16 =J5 4048-711
Racemisation of optically active N-acyl-aminoacid(s) - 04131B/03
DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =NL 7810-986
Immobilising enzymes on amorphous silica carrier - 35242B/19

EAST 02.09.77 EASTMAN KODAK CO A96 C03 D13 =J5 4046-824
Pill for ruminants resistant to conditions in the rumen - 24176B/13
•EBAI 20.09.77 EBARA INFILCO KK D15 *J5 4047-356
Concentrating sewage sludge - 39685B/21
EFFE- 15.08.77 EFFEM FOODS PTY C03 D13 =FR 2400-328
Animal food, esp. for cats and dogs, based on animal blood - 14161B/08
•EIKE- 20.09.77 EIKEN KAGAKU KK B04 D16 *J5 4046-883
Determn. of the sensitivity of bacteria to pharmaceuticals - 39654B/21
ELBI- 18.08.77 ELBICON ELECTRONICS D14 =FR 2400-396
Foreign body detection by reflected polarised infrared light - 06418A/04
ENFO/ 04.10.77 ENFORS S D16 F09 =NO 7803-354
Microbiological modification of hardwood - 31979B/17
•ENVI 12.04.78 ENVIROTECH CORP D15 J09 *US 4153-411
System for drying wet sewage sludge - 40427B/21
•ESSO 27.03.74 EXXON RES & ENG CO D25 E13 H07 M14 *US 4153-566
lubricants and concentrates contg. bis-oxazoline cpds. - 40498B/21
•ETHI 16.11.77 ETHICON INC A96 D22 F01 *DT 2849-785
Absorbable surgical suture filament and prosthesis material - 39387B/21
EXQU- 02.07.75 EXQUISIT-KOSMETIK A97 D25 =CA 1053-111
Washing and rinsing composition for softening textiles - 05580Y/04

FARB 18.05.74 BAYER AG D18 E19 =CA 1052-954
Chrome tanning of leather - 80936W/49
FARB 27.08.77 BAYER AG B03 C02 D13 =J5 4046-786
Tri:hydroxy-piperidine derivs. - 18396B/10
FARB 01.09.77 BAYER AG A60 D25 E16 F06 =J5 4046-715
Basic ester(s) of amino-carboxylic acids and aliphatic poly:ol(s) - 22199B/12
FARB 01.09.77 BAYER AG A25 D18 (A97) =J5 4047-800
Water-soluble oligo-urethane resins contg. quat. gps. - 22205B/12
FARB 03.09.77 BAYER AG D18 =J5 4046-801
Chrome tanning of hides and pelts - 20218B/11
FARH 11.08.77 HOECHST AG A82 D22 F08 (A83 A84 A96) =BR 7805-124
Water vapour absorbent and permeable rubber web - 12364B/07
FARH 11.08.77 HOECHST AG A81 D18 F06 G03 =BR 7805-125
Water vapour absorbent and permeable adhesive compsn. - 12365B/07
FARH 19.08.77 HOECHST AG A97 D25 E11 (E34) =FR 2400-553
Detergent additive contg. sodium sulphate and/or tri:poly:phosphate - 11931B/07
FARH 04.11.77 HOECHST AG A60 D23 E16 K01 (A14) =NL 7810-987
Surfactant mixt. of per:fluoroalkyl quat. ammonium alkyl sulphate(s) - 35259B/19
FATE- 03.10.77 FATER SPA D22 F04 =DK 7804-351
Absorbent sanitary tampon of hydrophilic cellulose fibres - 10024B/06
•FEED= 11.05.76 FEED MIX PROD IND C03 D13 *SU -615-912
Ruminant feed compsn. contg. grain and urea - 40054B/21
FELL/ 26.04.76 FELLOWS A N A97 D22 E17 =GB 1546-480
Solid compsn. contg. dialdehyde adsorbed on vehicle or support - 77498Y/44
•FERR- 08.04.75 FERRARI E CIGARINI D15 L02 *IT 1029-224
Washing water purificn. in ceramics works - B/21
FIRM 10.01.77 FIRMENICH SA B07 C02 D13 E13 (B03 D18) =FR 2400-513
4-Acyl-pyrimidine and 2-methyl-4-acyl-pyrimidine derivs. - 51922A/29
•FIRM 16.11.77 FIRMENICH SA D23 E17 *DT 2849-332
5,9-Di:methyl-deca-4,9-di:en-1-al - 39369B/21
FISH- 07.04.76 FISHER SCIENTIFIC A96 B04 D16 (A14) =US 4153-512
Test method for measuring sensitivity of microorganisms to antibiotics - 72453Y/41
•FOUN= 05.04.76 FOUNDRY PROD INST D16 E17 M22 *SU -616-035
Scale-preventing coating for metal casting moulds and cores - 40112B/21
FRAN/ 23.06.76 FRANKLIN G C D15 J02 #GB 1546-401
Submersible vertical liquid aeration tube - 57753X/30
•FRES- 14.11.77 FRESENIUS E CHEM PH A97 D15 J01 *DT 2750-807
Ion-selective membranes contg. siloxane in an inert carrier - 39244B/2
•FRIH 11.11.77 FRIESEKE & HOEPFNER GMBH D15 K07 *DT 2750-429
Radioactively contaminated sewage treated by concn. and deco
39202B/21
•FRIT- 28.09.77 FRITZSCHE DODGE & O D23 E15 (D13) *GB 1546-283
Isomeric cyclo:gernayl mercaptan cpds. - 39409B/21
•FUKO 19.09.77 FUJI OIL KK D13 *J5 4046-849
Protein paste prepn. from soybean milk - 39650B/21
•FULL/ 26.05.77 FULLERTON E D13 *GB 1546-350
Application of coating to cakes - 39410B/21

•GEBH/ 20.01.78 GEBHARDT E D11 *DL -134-722
Processing enzyme-rich baking flour - 39106B/21
GENE- 08.11.77 GENENTECH INC B04 D16 =GB 2007-675
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =GB 2007-676
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NL 7811-040
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NL 7811-041
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NL 7811-042
Recombining plasmid for transformation of bacteria - 35257B/19
•GENO 30.03.72 GENERAL FOODS CORP B05 D13 E14 *US 4153-737
Sweetening composition of di:peptide salt in propylene glycol
40566B/21
GENO 29.08.77 GENERAL FOODS CORP D13 E24 =J5 4047-724
Solubilising erythrosine food dye under acid conditions - 01971B/02
GENO 28.09.77 GENERAL FOODS CORP D13 =DK 7803-409
Decaffeination of tea and coffee extracts - 68805A/38
GEVA 06.02.74 AGFA-GEVAERT AG C03 D13 (D16) =IT 1029-460
Water soluble protein materials prodn - 54032W/33
GEWK 20.10.72 GEW KERAMCHEMIE D15 J03 =DS 2251-442
Electrolytic detoxication of cyanide using V4A anode - 32890V/18
•GRAC 05.02.76 GRACE W R CO A96 D21 *US 4153-680
Dentifrice contg. silica hydrogel having specified water content
40549B/21
GRAM- 06.10.77 BRODRENE GRAM A/S D13 =NO 7803-372
Deeply inlaid decoration of iced lollies with contrast material - 11966B/
GRAM- 06.10.77 BRODRENE GRAM A/S D13 =NO 7803-373
Decoration of iced lollies with patterned imprint - 11967B/07

HAAR 31.03.71 HAARMANN & REIMER GMBH D23 E14 =DS 2115-551
Aromatic hydroxy aldehydes prepn - 68205T/43
HAMB- 13.11.73 HAMBURGEN G CO D15 J02 =IT 1029-311
Nozzle for injection of gases into liquids - 34662W/21
•HASE 20.09.77 HASEGAWA KK D13 E13 *J5 4046-857
Spice with garlic-like taste and flavour - 39652B/21
•HASE 22.09.77 HASEGAWA KK D23 E15 *J5 4048-737
Crotonyl-cyclohexenone cpds. - 39924B/21
•HASE 22.09.77 HASEGAWA KK D23 E15 *J5 4048-738
Beta-damascenone and di:hydro beta-damascenone prodn. - 39925B/2
•HAYA/ 19.09.77 HAYASHI A D13 E12 (E11) *J5 4046-832
Food preservative contg. anhydrous sodium acetate and phytic acid
39640B/21
HENK 21.04.71 HENKEL KG AUF AKTIEN D21 E16 =DS 2119-231
Oxidation dye compsn for human hair - 71372T/45
HENK 24.09.73 HENKEL KG AUF AKTIEN C02 D22 =DS 2347-932
Epoxide/caprolactam/diamine addition prods - 24469W/15
HENK 29.01.74 HENKEL KG AUF AKTIEN D21 E17 (E12) =US 4153-726
Skin protection compsn contg polybasic ether carboxylic acids
52400W/32
HENK 01.02.77 HENKEL KG AUF AKTIEN D25 =US 4153-570
Low foaming aq. detergent concentrate - 57018A/32
HENK 03.10.77 HENKEL KG AUF AKTIEN A96 D22 F07 =DK 7804-002
Sanitary tampon - 29896B/16
HENK 03.10.77 HENKEL KG AUF AKTIEN A96 D22 F07 =NO 7803-085
Sanitary tampon - 29896B/16
•HERT/ 20.01.78 HERTTUA K D13 *BE -873-516
Drink prepd. by water extn. of wood bark and sap - 39012B/21
•HERZ/ 20.03.78 HERZOG M D14 *US 4153-153
Tea bag on string - 40398B/21
•HETO 23.09.76 HETEROORG CPDS AS USSR D11 *SU -615-913
Well-shaped macaroni products from wheat - 40055B/21
HIEJ 07.05.75 HITACHI PLANT ENG CONST D15 =J7 9010-193
Treating waste water contg. free and complexed cyanide - 97105X/52
HIEJ 07.05.75 HITACHI PLANT ENG CONST D15 =J7 9010-194
Treating waste water contg. free and complexed cyanide - 97106X/52

HITA 14.05.75 HITACHI KK D16 E17 (E36) =DS 2621-524
Anaerobic processing of biochemical waste - 89168X/48
*HITA 17.08.77 HITACHI KK D15 *J5 4031-959
Waste water treatment esp. for suspended solids recovery - 39459B/21
HOFF 15.09.76 HOFFMANN-LA ROCHE INC B05 D13 E24 =US 4153-805
Carotenoid inters. prepn. from 3-alkoxy cycloalk 2-enones - 97408X/52
*HOFF 27.03.78 HOFFMANN-LA ROCHE INC D13 E13 (E24) *US 4153-615
1,4-dioxa-spiro (4,5)decane derivs. - 40517B/21
*HOHN/ 14.11.77 HOHN K D11 *DT 2751-263
Baking plate set for crisp pastry - 39292B/21
*HOLK 10.11.77 HOLSTEIN & KAPPERT MASC D22 *DT 2750-233
Cleaning bottle filling tubes - 39185B/21
*HOPP/ 27.12.77 HOPPE H D15 *DL -134-636
Purifying laundry waste waters - 39084B/21
*HRUS/ 11.11.77 HRUSCHKA H D15 *DT 2750-626
Lime admixture to sewage - 39220B/21
*HULS/ 16.12.77 HULSEN U D13 *DL -134-597
Increasing dry solids content of milk products - 39071B/21

ICIL 04.06.75 IMPERIAL CHEM INDS LTD D15 E33 =GB 1546-586
Treating liq. effluents contg. calcium chloride - 97401X/52
ICIL 03.11.77 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =NL 7810-913
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18
ICIL 03.11.77 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =NL 7810-953
Biocidal polyurethane(s) and polyester(s) - 33362B/18
ICIL 23.10.78 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =GB 2007-688
Biocidal polyurethane(s) and polyester(s) - 33362B/18
IDEK 19.01.76 IDEMITSU INDUSTRIES KK A11 B07 C03 D13 (A96 A97 D16) =US 4153-508
Gel-forming polysaccharide prepd. by Arthrobacter cultivation - 52614Y/30
*IKED 22.09.77 IKEDA BUSSAN KK A35 D15 J01 (A13 A17) *J5 4047-887
Oil adsorbent prepd. from kapok fibre mixt. - 39814B/21
*INAB/ 22.09.77 INABA H D15 *J5 4047-881
Flocculant for use in waste water treatment - 39810B/21
INDV 30.01.76 INDIANA UNIVERSITY B05 D13 E17 (D21 E13 E33) =US 4153-732
Anticaries additives for foodstuffs - 58776A/33
INFL 04.02.77 INT FLAVORS & FRAGR INC B05 D13 E15 (B07) =US 4153-568
Alpha-substd.-3,3-di:methyl-2-norbornane-methanol cpds. - 21476A/11
INFL 04.02.77 INT FLAVORS & FRAGR INC B05 D13 E15 (B07) =US 4153-811
Alpha-substd.-3,3-di:methyl-2-norbornane-methanol cpds. - 21476A/11
INFL 15.08.77 INT FLAVORS & FRAGR INC D13 E24 =FR 2400-331
Stabilised red beet dye compsns. - 06001B/03
*INFL 15.11.77 INT FLAVORS & FRAGR INC B07 D23 E15 (B05 D13 D18 D25) *DT 2840-823
Trans, trans-delta-damascone - 39304B/21
INTF 01.10.73 INST TEXTILE DE FRANCE D23 E15 =DS 2443-191
Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - 24567W/15

*JAEG/ 19.01.78 JAEGER K B04 D16 *BE -873-544
Antiblastic immunological preparations - 39018B/21
*JANK/ 17.11.77 JANKOWSKI C D23 E19 (D13) *CA 1053-261
Extracting terpene(s) from Comptonia peregrina leaves - 39044B/21
JANS/ 30.11.76 JANSON B G D15 F09 J01 =US 4153-543
Fibre separation from cellulose or paper mfr. waste water - 40790A/23
JASK/ 17.08.77 JASKOWSKI M C A96 D21 E17 =BR 7805-276
Hair shaping compsn. for all types of hair - 16424B/09
JASK/ 17.08.77 JASKOWSKI M A96 D21 E17 =FR 2400-357
Hair shaping compsn. for all types of hair - 16424B/09
JOHJ 31.08.77 JOHNSON & JOHNSON A81 D22 G03 (A11 A17) =BR 7805-619
Pressure sensitive adhesive compsn. - 29695B/15
JONK/ 16.08.77 JONKERS M K P B07 D21 =FR 2400-352
Fluorine compsn. teeth treatment device - 16378B/09
*JONS/ 31.10.77 JONSSON U B04 D16 *WP 7900-256
Prodn. of a stable prepn. having immunoglobulin binding properties - 40601B/21

KANE 07.12.73 KANEBO KK D15 F01 =J7 9009-835
Silk spinning waste water treatment - 00578Y/01
*KANE 20.09.77 KANEBO KK B04 D16 *J5 4046-885
Stabilisation of urokinase - 39655B/21
*KANE 22.09.77 KANEBO KK D21 E14 *J5 4046-844
Hair rinsing compsn. - 39647B/21
*KANF 21.09.77 KANEGAFUCHI CHEM KK B05 D16 *J5 4046-888
Coenzyme/Q prepn. - 39658B/21
KATA- 12.04.75 KATAYAMA CHEM WKS A88 D15 J01 =J5 1120-045
Ships sewage treatment system - 81607X/44
KATA- 12.04.75 KATAYAMA CHEM WKS A88 D15 J01 =J7 9010-191
Ships sewage treatment system - 81607X/44
KATS/ 16.08.77 KATSUNUMA N B04 D16 =FR 2400-522
Oligosaccharide prepd. from Enterobacteriaceae - 18337B/10
*KIFO= 15.02.77 KIEV FOOD IND TECHN D17 *SU -616-280
KIKK 18.06.75 KIKKOMAN SHOYU KK D16 =CA 1053-166
Solid koji prepn. with prevention of bacterial contamination - 11772Y/07
*KOBM 21.09.77 KOBE STEEL KK D15 J01 *J5 4047-878
Utilisation of high pressure waste liq. - 39807B/21
KOLE/ 19.07.77 KOLEMAINEN S C03 D13 J04 =J5 4048-595
Determn. of somatic cell count in milk to detect mastitis - 08518B/05
KONN 14.10.70 GIST-BROCADES NV D25 (D16) =DS 2167-169
Enzymatic compositions - 27049T/17
KOPS 15.12.77 KRUPP-KOPPERS GMBH D15 H09 =BE -872-165
Coke oven gas waste water desulphurisation - 22151B/12
KOWA 08.11.77 KOWA KK B03 D16 =NL 7808-927
Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - 73117A/41
KUKI- 23.12.76 KUKIDENT KURT KRISP A96 D21 E36 (E16) =DL -134-484
Water soluble tablet for cleaning dentures - 42218A/24
*KUPO= 23.06.76 KAUN POLY A35 D12 (A92) *SU -616-190
Bags for filling with sausage meat product - 40188B/21
KURE 24.08.76 KUREHA KAGAKU KOGYO B04 D16 (B07 D13) =DL -134-647
Culture of basidiomycetes of coriolus species - 15867A/09
KURE 16.09.77 KUREHA CHEM IND KK C03 D16 =J5 4046-830
Nitrogen-contg. polysaccharide active against plant viruses - 26389B/14
KURE 22.09.77 KUREHA CHEM IND KK D13 E17 J01 =J5 4047-885
Ethylene adsorbent of active carbon - 29978B/16
*KURS 22.09.77 KURARAY KK D13 *J5 4046-853
Surface treatment of milk protein fibre - 39651B/21
KUTS- 02.05.75 KUTSCH-CONSULT GMBH D15 =GB 1546-481
Mechanical sewage sludge composting - 87144X/47
*KYOW 21.09.77 KYOWA FERMENTATION KK B03 D16 *J5 4046-747
Antibiotic Fortimicin-KO - 39593B/21
*KYOW 21.09.77 KYOWA FERMENTATION KK B04 D16 *J5 4046-891
Specific phosphate prepn. - 39659B/21

*LAND- 19.01.78 AKAD LANDWIRTSCHAFT C03 D13 *DL -134-477
Fodder prodn. from animal excrement - 39046B/21
*LANZ/ 10.03.75 LANZONI R D14 *IT 1029-115
Food industry appts. for cleaning metal parts - B/21
LARS/ 19.08.77 LARSSON K D13 E11 (E13) =FR 2400-552
Sepg. polar lipid(s) from non-polar lipid(s) for use as food additives - 18322B/10
*LEEN= 01.10.74 LENGD ENG-CONS INST D16 (D22) *IT 1029-318
Electrical disinfection and purification of liquids - B/21
*LEME= 28.06.76 LENGD MEAT IND ASSO D12 *SU -615-909
Meat-feeder for processing machine - 40051B/21
*LEME= 15.09.76 LENGD MEDIC INST D21 *SU -615-930
Non corrosive polishing compsn. for dental fillings - 40059B/21
*LENT/ 08.07.77 LENTS C M D13 *US 4153-736
Keeping precooked food moist in display unit - 40565B/21
*LERO= 14.10.76 LENGD ROSTORGMONTAZ D15 J04 *SU -615-405
Water titration coulometric cell - 40025B/21
LEWI- 06.10.77 LEWIS REFRIGERATION D14 =NO 7803-325
Freezer for food prods. in trays - 31961B/17
*LINC/ 24.02.78 LINCOLN R G D16 *US 4152-868
Mushroom spawn prodn. - 40360B/21
*LIOC 21.09.77 LION DENTIFRICE KK B05 D22 *J5 4046-818
External antiphlogistic analgesic drugs - 39633B/21
LOVE 16.11.72 LEO AB D13 (D18) =DS 2357-403
Nicotine-contg. chewing gum - 24948V/14
*LVPE= 21.09.76 LVOV PERFUME COSMET D23 E19 *SU -616-275
Original scent - 40222B/21
*LYAL/ 16.08.77 LYALL R D13 *FR 2400-693
Milk powder distributor for baby food - 39403B/21

MACL/ 08.11.77 MACLENNAN M E D12 (D16) =NL 7811-091
Mycelial meat analogues and extenders - 37610B/20
*MAGA= 18.03.76 MAGARACH WINE VINES D14 J08 (D16) *SU -615-347
Heat exchanger for liquid e.g. food, wine etc. thermal treatment - 40013B/21
*MAGN- 05.12.77 ESTATE MAGNUSON R M D14 *US 4152-977
Peeling cherries or tomatoes by beds of contra rotating rolls - 40373B/21
*MARI/ 11.03.75 MARIANI I D15 J01 *IT 1029-003
Continuous flocculation appts. - B/21
*MASK- 18.11.76 MASKIN NA EIE AB D15 *US 4152-800
Sludge suction unit for settling basins - 40353B/21
*MASS/ 27.06.75 MASSEI R D15 *IT 1029-274
Appts. for removing oily and solid floating waste - B/21
*MASW 14.11.77 MASCH BUCKAU R WOLF D17 *DT 2750-788
Sugar beet scalding vat - 39242B/21
*MATS- 21.09.77 MATSUKAZE TOSHI SEI A96 D21 (A14) *J5 4047-791
Polymerising and moulding methyl methacrylate dental resin - 39757B/21
*MATS/ 24.09.77 MATSUURA H D15 *J5 4047-871
Appts. for desalination of sea-water using solar energy - 39804B/21
*MAZZ/ 21.02.75 MAZZON F D15 J01 L02 M11 *IT 1029-351
Washing water purificn. in electroplating and ceramic industries - B/21

•MCGA/ 01.02.78 MCGALLIARD J D A83 D21 F07 *US 4152-784
Garment which automatically removes unwanted hair - 40351B/21

•MCLE/ 06.02.78 MCLEAN J O D15 E36 *US 4153-547
Removing hydrogen sulphide from well water - 40485B/21

•MEIP 02.07.76 MEIJI NYUGYO KK D11 *US 4152-976
Applying topping material, e.g. cheese to pizza - 40372B/21

•MELC/ 07.04.75 MELCHIORI E D16 *IT 1029-059
Mushroom roots cutting machine - B/21

•MENE/ 20.01.75 MENEGHINI M D13 *IT 1029-344
Confectionery prodn. plant - B/21

MENI/ 26.01.78 MENIG J B D23 =US 4153-007
Wax taper candle with wood grain finish - 60441A/33

MERI 01.08.77 MERCK & CO INC B04 D16 =J5 4046-893
Antigenic meningococcal polysaccharide with high mol. wt. - 82019A/45

MERI 19.08.77 MERCK & CO INC B02 D16 =J5 4046-890
Thienamycin prepn. from an N-acyl or N-di:acyl deriv. - 18387B/10

METG 14.11.74 METALLGESELLSCHAFT AG C03 D23 (D13) =SU -615-869
Oil recovery from plant material - 40283X/22

METG 16.08.77 METALLGESELLSCHAFT AG C03 D13 (D17) =BR 7805-234
Feedstuff and sugars prodn. from vegetable waste - 20108B/11

METG 16.08.77 METALLGESELLSCHAFT AG C03 D13 (D17) =FR 2400-329
Feedstuff and sugars prodn. from vegetable waste - 20108B/11

MEYN/ 12.01.77 MEYN P D12 =DS 2756-347
Extractor for cloaca of poultry - 34990A/20

MILE 15.08.77 MILES LABORATORIES INC B04 D16 J04 =FR 2400-708
Device for liq. control soln. prepn. - 14632B/08

MINN 20.06.68 MINNESOTA MINING CO D13 =DS 1931-505
Thermally insulated casserole with integralh - 68886S/43

•MINN 14.11.77 MINNESOTA MINING CO A96 B04 D16 *DT 2849-563
Substrates for immobilising biologically active proteins - 39382B/21

MIRO- 03.11.77 MIRODUR IT SPA D14 J02 =NL 7810-810
Machine for simultaneously grinding and mixing several substances - 18081B/10

MITK 14.08.75 MITSUI TOATSU CHEM INC D15 =J7 9010-195
Liq. phase oxidn. of effluents - 15001Y/09

MITK 14.08.75 MITSUI TOATSU CHEM INC D15 =J7 9010-196
Liq. phase oxidn. of effluents - 15001Y/09

MITK 03.10.75 MITSUI TOATSU CHEM INC A35 D15 (A21) =J7 9010-197
Treatment of waste water contg. amino-type synthetic resin - 35378Y/20

•MITN 19.09.77 MITSUBISHI GAS CHEM IND C03 D16 (D13) *J5 4046-881
Prodn. of selenium-contg. microorganism - 39653B/21

•MITR 22.09.77 MITSUBISHI RAYON KK A97 D15 *J5 4047-361
Oil-contg. waste water treatment - 39689B/21

•MITS/ 24.09.77 MITSUHASHI M D15 M11 *J5 4047-867
Treating waste chromium plating soln. - 39800B/21

•MNKN 22.09.77 MINAMI NIPPON RAKUNO KYO D13 *J5 4046-853
Surface treatment of milk protein fibre - 39651B/21

•MODR/ 17.03.76 MODROVICH I E B04 D16 *US 4153-511
Stabilised liq. coenzyme compsn. - 40467B/21

MOEB/ 15.12.76 MOEBUS O D16 E35 =DL -134-648
Growing yeast on lactose-contg. dairy residues - 49085A/27

MOKA/ 10.12.76 MOKA H D11 =DL -129-288
Automatic glaze coating bowl for foodstuffs - 25365A/14

MOMI 19.07.76 MORINAGA & CO LTD D13 =DS 2732-609
Automatically controlling caramel degree of liquid - 08676A/05

MONT 23.02.77 MONTEDISON SPA D18 E33 =DL -134-780
Skin tanning prod. contg. acid, aluminium salts and complexing agent - 47772A/27

MORI/ 18.08.76 MORINAGA ENGG KK D15 =US 4153-544
Activated sludge treatment of organic effluent - 29538A/16

•MOSV= 14.02.77 MOSC SVOBODA COSMETIC A96 D21 *SU -615-931
Tooth-paste having improved prophylactic properties - 40060B/21

•MOSV= 14.02.77 MOSC SVOBODA COSMETIC A96 D21 *SU -615-932
Tooth-paste with prophylactic properties - 40061B/21

•MOWI= 10.02.77 MOSC BR WINE MAKING A97 D16 *SU -616-277
Stable medium dry table wine prodn. - 40223B/21

MUNC- 03.10.77 MUENCHMEYER & CO D12 =DK 7804-348
Machine to cut open and clean stomach of chickens, etc. - 11937B/07

NAGE/ 28.01.76 NAGEL H,H B04 D16 =US 4153-686
Drug-potentiating e.g. ampicillin-potentiating glycoprotein prodn. - 67020Y/38

•NAHR- 28.12.77 VEB NAHRUNGSGUTERMA D12 *DL -134-476
Meat product filler spout - 39045B/21

•NAKA- 17.09.77 NAKANO SU-MISE KK D16 E17 (D13) *J5 4046-899
Acetic acid prepn. by fermentation - 39660B/21

•NALC 25.01.74 NALCO CHEMICAL CO A91 D15 M11 *US 4153-548
Treatment of waste water from electrodeposition paint process - 40486B/21

•NAPR- 16.06.78 NAT PRESTO INDS INC D13 *US 4152-974
Hot air corn popper - 40371B/21

NATR 01.11.77 NATIONAL RES DEV CORP B04 D16 J04 =WP 7900-255
Enzymatic analysis using nitro-styrene derivs. - 18088B/10

•NATY 18.10.74 NABISCO INC D13 *US 4153-738
Instantly hydratable textured vegetable protein flakes - 40567B/21

•NEIE/ 21.09.77 NEIER B R D14 *US 4153-376
Hydraulically powered rotating feed auger for hopper - 40418B/21

NEST 19.12.73 SOC PROD NESTLE SA D13 (D16) =SU -615-862
Milk-coagulating enzyme for use by the milk industry - 44677W/27

NEST 01.02.74 SOC PROD NESTLE SA D16 (D13 D17) =IT 1029-379
Alpha-galactosidase obtd. by culture of penicillium duponti - 50934W/

NEST 08.01.75 SOC PROD NESTLE SA A97 D13 =SU -615-839
De-caffeinating aq. tea and coffee extract - 56320X/30

NEST 03.08.77 SOC PROD NESTLE D13 =FR 2400-327
Vegetable protein extracts - 14456B/08

NILL- 31.07.75 NTHERN ILLINOIS RES A96 D22 (A14) =US 4153-055
Compsn. based on plastic material for para surgical uses - 08450B/05

•NISB 22.09.77 JAPAN TOBACCO & SALT PUB D18 E15 *J5 4046-751
1-Methyl-3-isopropyl-cyclopentane-1,2 di:carboxylic acids - 39595B/21

•NISI 22.09.77 NISSHIN STEEL KK D15 *J5 4047-866
Recovering mineral acids from waste liq. contg. metal ions - 39799B/21

•NITL 26.09.77 NITTO ELECTRIC IND KK D14 J01 *J5 4048-687
Multi-pipe membrane liq. separator - 39915B/21

•NITT 19.09.77 NITTO CHEM IND KK A41 D16 E17 *J5 4046-887
(meth)acrylic acid mfr. from (meth)acrylamide - 39657B/21

•NUOV- 11.04.75 NUOVA ITALDRACHE D12 *IT 1029-086
Machine for cleaning external surfaces of shellfish - B/21

•ODME= 14.02.77 ODESS MEDICAL INST A96 D21 *SU -615-931
Tooth-paste having improved prophylactic properties - 40060B/21

•ODME= 14.02.77 ODESS MEDICAL INST A96 D21 *SU -615-932
Tooth-paste with prophylactic properties - 40061B/21

OLYU 09.11.76 OLYMPUS OPTICAL KK D16 =DS 2750-172
Automatic incubator - 35273A/20

OREA 19.06.72 L'OREAL SA A96 D21 E23 =US 4153-065
Hair dyes - 03862V/03

OREA 19.08.77 L'OREAL SA D21 E14 (E12) =FR 2400-358
Hair colouring compsn. contg. oxidn. dyes - 14189B/08

OREA 19.08.77 L'OREAL SA D21 E14 (E12) =FR 2400-359
Hair colouring compsn. contg. direct colourants - 14188B/08

•OZAW/ 19.09.77 OZAWA M D21 E19 *J5 4046-846
Non-flammable manicure remover - 39648B/21

PAMF= 22.04.75 PAMFILOV COMM WATER C04 D15 #J7 9010-192
Coagulating waste sludge streams by addn. of dried sludge - 86321X/46

PASE 10.10.72 PASSAVANTW MICHELBACHER D15 =DS 2249-607
Improving sewage sludge drying - 32823V/18

PASE 09.11.73 PASSAVANTW MICHELBACHER D15 =DS 2356-082
Bar screen collected material dewatered - 36075W/22

•PASS- 12.11.77 PASS & CO D15 J01 *DT 2750-736
Multistage desalination plant - 39231B/21

•PASS- 12.11.77 PASS & CO D15 J01 *DT 2750-764
Evaporative desalination plant - 39235B/21

•PASS- 12.11.77 PASS & CO D15 J01 *DT 2750-765
Evaporative desalination plant - 39236B/21

PAUL/ 09.04.75 PAULICK H D16 =DL -121-798
Hydrothermic prehandling and grinding of grain, esp for brewing
75856X/41

•PEDE/ 03.03.75 PEDERINI O D12 *IT 1029-110
Pork and ham pieces packaging appts. - B/21

PFIZ 17.10.73 PFIZER INC B02 C02 D22 E13 =DS 2462-675
6-Amino-2,2-dimethyl-3-(tetrazol-5-yl)-penam derivs. - 29076W/18

PFIZ 15.11.77 PFIZER INC D16 H01 =DT 2848-894
Fermentative prodn. of pyruvate-free xanthan - 37168B/20

•PFIZ 18.11.77 PFIZER INC B05 D16 E17 *BE -872-095
2,5-Di:keto-gluconic acid preparation - 38984B/21

•PIER- 31.08.66 PIERCE MICRONIZING C03 D13 *US 4153-733
Wafers prepd. from whole cereal grains - 40564B/21

PLAC 15.09.70 MAX PLANCK GES WISSENSCH D16 H04 =SU -615-871
Bacteria m 102' strains - 19710T/12

POGC 06.07.77 DAVY POWERGAS LTD D15 E37 J01 M25 =BR 7804-331
Recovering e.g. copper or cyanide from aq. soln. - 80227A/45

POLA 12.07.75 PFW BEHEER BV D13 E13 =CA 1053-246
Cyclic spiro 1,2,4-trithiolan cpds. - 05663Y/04

•POLY- 28.10.77 POLYPUR FORSALJNING D15 *DT 2846-483
Agitator for biological toilet - 39310B/21

PROC 27.06.77 PROCTER & GAMBLE CO D22 F04 =BR 7804-071
Low-density disposable absorbent bandage - 10315B/06

PROC 06.07.77 PROCTER & GAMBLE CO D25 E19 =J5 4046-998
Pourable, water dispersable conc. liq. fabric softener - 08406B/05

PROC 18.07.77 PROCTER & GAMBLE CO A96 D21 E19 (E32 E33) =BR 7804-600
Stable antiperspirant stick compsn. - 10320B/06

•PROJ- 27.09.76 PROJEK WASSERWIRTS D15 E36 J03 *DL -134-655
Electrolytic chlorine gas generator - 39094B/21

PROJ- 17.08.77 PROJEKT CHEM VERFA D17 =FR 2400-557
Sugars and opt. cellulose and lignin extn. from vegetable material
14176B/08

QUAK 23.01.75 QUAKER OATS CO D11 =CA 1053-063
Storage-stable bread of low wheat flour content - 31765X/17
QUAK 26.07.76 QUAKER OATS CO C03 D12 #CA 1053-064
Marbled pet food with meat casein salt etc. - 62958Y/35

*REGC 16.11.77 UNIV OF CALIFORNIA D15 J01 (D14) *US 4153-546
Sepn of volatile solvent from soln. - 40484B/21
*REIC- 14.11.77 REICHLING R & CO D15 *DT 2750-789
Portable drinking water preparation package - 39243B/21
REIC- 14.11.77 REICHLING R & CO GM D15 =GB 2007-637
Portable drinking water preparation package - 39243B/21
*REIC/ 30.12.77 REICHEL H J D14 *DL -134-732
Thermal economy on sterilisation autoclave - 39112B/21
*REWO 00.00.70 REWO CHEM FAB D25 E19 (D21) *DT 2750-732
Mixed sulpho-succinate half ester prodn. - 39230B/21
*REWO 12.11.77 REWO CHEM FAB D25 E17 (D21 D22) *DT 2750-731
Betaine derivs. contg. ricinoleic acid amide gp. - 39229B/21
RHOD 23.12.76 DEUTSCHE RHODIACETA D18 E37 =DL -134-478
Metal oxide mixt. decreasing tobacco smoke toxicity - 30279A/17
*RHOD- 06.07.77 RHODIA INC D23 E17 *US 4153-634
methyl-heptenone prepn. - 40524B/21
*RHOD- 29.11.77 RHODIA INC D23 E17 *US 4153-633
Prepn. of methyl-heptenone - 40523B/21
RHON 27.07.77 RHONE-POULENC INDUSTRIES A97 D16 E13 (A11 D17) =BR 7804-825
Cells contg. glucose-isomerase enclosed in cellulose ester - 08012B/05
RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A25) =GB 2007-692
Anti-soil and anti-redeposition detergent compsn. - 33374B/18
RICH/ 01.11.77 RICHARDSON A C B04 D16 J04 =WP 7900-255
Enzymatic analysis using nitro-styrene derivs. - 18088B/10
*RIED/ 04.11.77 REID J H D15 *WP 7900-262
Flow control appts. for waste water oxidation ditch - 40603B/21
RIKL 24.09.75 RIKER LABS INC B02 C02 D22 E13 =US 4153-619
2-Nitro-3-phenyl-benzofuran-aliphatic acids - 83983A/46
*RIKL 19.12.77 RIKER LABS INC B02 C02 D22 *US 4153-716
2-Nitro-3-phenyl-benzofuran derivs. - 40559B/21
*RIKL 19.12.77 RIKER LABS INC B02 C02 D22 *US 4153-721
2-Nitro-3-substd.-phenyl-benzofuran derivs. - 40561B/21
RIZZ- 03.08.75 RIZZI & C SPA D18 =GB 1546-522
Dry press for wet hides with power cylinders - 13265Y/08
ROQF 15.09.76 ROQUETTE FRERES SA D13 E24 =US 4153-734
Natural yellow dye for foods - 21793A/12

*SAIN- 16.08.77 SAINT-DENIS SOFACO D22 *FR 2400-356
Sanitary pad fastened by an adhesive - 39391B/21
*SAND/ 20.05.77 SANDERSON C H D15 *US 4153-559
Appts. for magnetic treatment of water - 40493B/21
SANO 01.11.74 SANDOZ LTD B04 D16 =CA 1053-152
Isolation of high purity thermolabile E. coli enterotoxin - 38393X/21
SANO 29.08.77 SANDOZ AG A97 D25 E19 (A25 A26) =J5 4046-207
Liq. detergent compsn. for cleaning hard surfaces - 17999B/10
SCHL/ 31.07.74 SCHLOBACH C R D11 =DL -113-305
Powdery or pasty biscuit-forming compsn - 52465W/32
SCSP- 04.05.70 SCIENCE SPECTRUM B04 D16 =DS 2121-994
Bacterial sensitivity testing to antibiotics and chemotherapeutics by - 75625S/48
SEAI 19.01.73 SOC ETUD APPL IND COMM D22 =DS 2402-394
Control of a physical parameter e.g. temp. - 55585V/31
*SEBS- 21.02.78 SEB SA A96 D12 *BE -873-547
Domestic wax melting installation - 39020B/21
SEGH- 06.06.75 SEGHERS ENG NV D15 J02 =GB 1546-423
Expanded plastic packing for gas-liquid contactors - 74167W/45
*SEJT/ 14.09.77 SEJTMAN J D11 *BR 7706-162
Kneading machine for bread making - B/21
*SEJT/ 14.09.77 SEJTMAN J D11 *BR 7706-163
Kneading machine for bread making - B/21
*SELW- 11.11.77 SELWIG & LANGE MASC D17 J01 *DT 2750-489
Support for the cover sieves of continuous centrifuges - 39208B/21
SHEL 07.01.74 SHELL INT RES MIJ BV C03 D14 H04 (D13) =SU -615-870
Growing methane-utilising microorganisms in mixed culture - 46037W/28
*SHIE 16.09.77 SHINETSU CHEM IND KK C02 D13 E13 *J5 4046-784
3-Hydroxy-4-pyrone cpds. used as aroma suppliers - 39612B/21
SHIO 19.09.77 SHIONOGI KK B03 C02 D13 E13 (D22) =J5 4046-770
1-Heterocyclyl-carbonyl-amino-glycoside cpds. - 26439B/14
SHIO 22.09.77 SHIONOGI KK B03 C02 D13 E13 (D22) =J5 4046-785
1-Heterocyclyl-carbonyl-amino-glycoside cpds. - 26439B/14
*SHIS 22.09.77 SHISEIDO KK D21 E11 *J5 4046-847
Cosmetics contg. hexa:methyl-cyclo:tri:siloxane - 39649B/21
*SHKG 11.11.77 SCHOELLER & HOESCH KG A88 D18 F09 *DT 2750-590
Porous filter paper for cigarette filters - 39218B/21
*SHOS= 24.12.76 SHOSTKA SVEMA PROD D13 *SU -616-274
Broth boiler fcr gelatin prodn. - 40221B/21
*SIDA- 25.10.74 SIDA SPA D13 *IT 1029-306
Espresso coffee machine - B/21
SMIN 19.08.77 SMITH & NEPHEW PHAR A97 D22 E36 (A14 E19) =FR 2400-366
Solid sterilising compsn. contg. iodophor and aldehyde cpd. - 00044B/01
SNAM 09.04.75 SNAMPROGETTI SPA B04 D16 J04 =GB 1546-237
Modifying proteins by reaction with quinones - 79729X/43
SNOW 04.09.75 SNOW BRAND MILK PRODUCTS A97 D12 =CA 1053-066
Fish meat powder prodn. - 68777Y/38
SQUI 28.07.75 SQUIBB E R & SONS INC A96 D22 =CA 1053-107
Three layer medical bandage - 63139X/33
*SRCK 09.11.77 SERCK INDUSTRIES LTD D15 H03 J01 *GB 2007-520
Oil and water separator - 39429B/21
STAD 19.08.77 STANDARD OIL CO (IND) D13 =FR 2400-330
Simulated french fried potatoes - 11930B/07
STAD 19.08.77 STANDARD OIL CO (IND) D13 =J5 4046-851
Simulated french fried potatoes - 11930B/07
STAL 11.02.74 STALEY A E MFG CO A97 D11 (A11) =CA 1053-067
Granular hydroxypropyl starch prods. - 54141X/28
STAM 19.08.77 STAMICARBON BV D16 J04 =FR 2400-386
Reaction column process for enzymatic conversions - 09976B/06
STEI 30.08.77 STEINECKER A MASCH GMBH D16 =BR 7805-560
Plant to mfr. beer wort by hydrating crushed malt - 74492A/42
*STEM/ 14.11.77 STEMME R A88 D15 F04 J01 *DT 2750-897
Membrane mfr. for ultrfiltration, reversed osmosis, etc. - 39251B/21
STER 06.09.77 STERLING DRUG INC B05 C03 D22 (B03 C02) =US 4153-719
4-Benzyl or cyclohexyl or 2-furfuryl heptane-3,5 di:one derivs. - 18014B/10
STER 07.11.77 STERLING DRUG INC D15 =NL 7810-917
Compressing injection air for wet oxidn. purificn. of organic waste - 33356B/18
STER 10.11.77 STERLING DRUG INC D15 =DT 2848-710
Treating waste water by biological oxidn. and carbon adsorption - 35262B/19
STER= 08.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05) #NL 7712-270
Methyl-di:tert.-butyl:phenol purification - 49676A/28
STRI 18.02.77 SRI INT D16 F09 #GB 1546-544
Highly thermostable cellulase enzyme - 36414A/20
STUD 00.00.70 STUDIENGES KOHLE MBH D18 =US 4153-063
Nicotine removal from tobacco by extraction - 17339U/13
STUD 04.08.76 STUDIENGES KOHLE MBH D13 =DS 2732-103
Decaffeination of coffee - 06375A/04
SUME 01.07.77 SUMITOMO ELEC IND KK A96 B07 D22 (A14) =BR 7804-126
Vascular PTFE prosthesis - 78441A/44
SUMO 05.11.77 SUMITOMO CHEMICAL KK A97 B04 D16 =NL 7801-593
Immobilised enzyme carrier of macroporous anion exchange resin - 37364B/20
*SUNZ 21.09.77 SUNSTAR HAMIGAKI KK B04 D21 E24 *J5 4047-700
Compsn. for testing the activity of dental caries - 39705B/21

TAMA/ 08.07.75 TAMANO T D13 #CA 1053-337
Food defrosting by conductive and microwave heating - 25838A/14
*TATL 16.11.77 TATE & LYLE LTD D16 (D13 D17 D21) *DT 2849-183
Polysaccharide prepn. from Xanthomonas - 39365B/21
TECH- 21.07.77 TECHNIME S/A D15 E33 J01 =BR 7804-616
Emulsion or suspension breaking compsn. - 10358B/06
TEEP 09.09.74 TEE PAK INC A97 D12 E13 =CA 1053-065
Artificial strengthened sausage skins - 05634X/04
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =NL 7810-949
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
*TOAG 22.09.77 TOA GOSEI CHEM IND LTD D15 *J5 4047-357
Treating waste water contg. oxidisable substances - 39686B/21
*TOAG 22.09.77 TOA GOSEI CHEM IND LTD D15 *J5 4047-358
Human waste treatment - 39687B/21
*TOKE 22.09.77 TOKYO SHIBAURA ELEC LTD D22 E36 J03 *J5 4047-876
Corona discharge appts. for ozonisation of air etc. - 39806B/21
TORA 13.07.76 TORAY INDS INC D15 J01 =GB 1546-529
Membrane sepn. process - 06720A/04
*TOSU- 09.11.77 TOYO SUISAN KAISHA A97 D13 *GB 2007-489
Instantly cookable dry soup mix - 39427B/21
*TOXF 22.09.77 TOHO BESLON KK A35 D15 J01 K07 (A14) *J5 4047-359
Removal of radioactive isotopes from waste water - 39688B/21
*TOYF 20.09.77 TOYO RUBBER IND KK A97 B04 D16 J04 (A25) *J5 4046-886
Fixing enzymes for catalytic or analytical use - 39656B/21
*TSIR/ 21.12.76 TSIRULNIKOV A V D14 *SU -615-914
Garlic heads splitting apparatus - 40056B/21
*TURE/ 06.09.74 TURETTA L D16 *IT 1029-333
Grapefruit liqueur prodn. - B/21

UKEI- 07.11.73 UKE IND LTD D15 M25 =J7 9009-998
Metal recovery from waste waters contg. metal adsorbed on carbon - 81722X/44
*UMEA= 12.07.76 UKR MEAT DAIRY IND D12 *SU -615-911
Electro-cooking hams in electrolyte bath - 40053B/21

•UMEA= 02.08.76 UKR MEAT DAIRY IND D12 *SU -615-910
Two/stage electrical contact cooking of hams - 40052B/21

UNIC 28.06.77 UNION CARBIDE CORP A97 D12 =BR 7804-068
Food casings providing brown smoke colour - 02455B/02

UNIL 17.03.75 UNILEVER LTD D13 =GB 1546-508
Green and black tea extractible with cold water - 77857X/42

UNIL 11.10.76 LEVER BROTHERS CO A97 D25 E12 (A18 A25 E34) =US 4153-569
Liquid detergent compsn. - 25248A/14

UNIL 28.07.77 UNILEVER NV A96 D21 =BR 7804-851
Sprayable hair lacquer compsn. - 08019B/05

UNIL 22.08.77 UNILEVER NV D25 E34 =BR 7805-359
Aq. liq. detergent compsn. prepn. for washing clothes etc. - 14186B/08

UNIL 26.08.77 UNILEVER NV A96 D21 =J5 4046-842
Non-irritant, non-tacky antiperspiration compsn. - 20277B/11

UNIL 10.11.77 UNILEVER NV A97 D25 =DT 2847-826
Alkaline particulate detergent compsns. for washing clothes etc. - 37143B/20

UNIL 10.11.77 UNILEVER NV D23 (D13) =DT 2848-718
Margarine fat based on eighteen carbon fatty acids - 37159B/20

•UNIL 14.11.77 UNILEVER NV A96 B04 C03 D13 *DT 2849-226
Immunisation of poultry to coccidiosis - 39366B/21

•UNIL 16.11.77 UNILEVER NV A97 D25 E16 F06 *DT 2848-892
Fabric softening compsn. for cotton and synthetic textiles - 39348B/21

•UNIL 18.11.77 UNILEVER NV D25 E19 (E37) *BE -872-104
Aq. bleaching compsn., esp. hypochlorite, coloured by pigment - 38987B/21

UNIL 31.10.78 UNILEVER NV D25 E19 =GB 2007-735
Fabric softener compsn. - 33373B/18

UNIL 09.11.78 UNILEVER NV D23 (D13) =GB 2007-702
Margarine fat based on eighteen carbon fatty acids - 37159B/20

UNIL 09.11.78 UNILEVER NV A97 D25 =GB 2007-704
Alkaline particulate detergent compsns. for washing clothes etc. - 37143B/20

UNIO 18.01.77 UCB SA B02 C02 D13 =DL -134-525
Spiro-thiopyran or-pyran penicillin derivs. - 53860A/30

UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =US 4153-735
Lubricating binder for animal feeds - 65374A/37

UNIV 15.08.77 KANSAS STATE UNIV D15 J01 =FR 2400-382
Granular bed fluid filter - 14575B/08

UNTC 11.09.74 ECODYNE CORP D15 =CA 1053-159
Sludge removal from clarifier tank - 33804X/18

UNTC 18.10.74 ECODYNE CORP D15 =CA 1053-160
Centre post water clarifier apparatus - 33793X/18

•UNVO 28.12.77 UOP INC D15 *US 4153-556
Appts. for conditioning demineralised brackish or sea water - 40491B/21

•UPJO 01.04.74 UPJOHN CO C02 D22 E13 F09 *US 4153-707
2-Isoxazol-5-yl-phenol and derivs. - 40556B/21

UPJO 06.09.77 UPJOHN CO B03 D22 E13 F09 =J5 4048-736
Antibacterial deoxy-neamine derivs. and precursors - 22298B/12

USDA 26.09.77 US SEC OF AGRICULTURE A87 D22 E12 F06 #J5 4048-721
Zirconyl acetate complexes with peroxide(s) - 70657A/39

USMC 28.05.75 USM CORP D18 =GB 1546-217
Continuous handling of hides and skins - 95567X/51

VITC- 12.08.75 VITCO PATENS AG D15 =GB 1546-409
Purifying and dispensing unit for drinking water - 16559Y/10

•VOLO- 10.10.72 VOLONA LTD D16 *GB 1546-579
Apparatus for preparing fermented liquid e.g. beer - 39419B/21

•WASS- 16.01.78 INST WASSERWIRTSCHA D15 J01 *DL -134-727
Removal of particulate carbon adsorbent from water filter - 39108B/21

•WEIS/ 08.03.78 WEISS H D22 *DL -134-839
Sterilising thermo-labile, esp. medical and pharmaceutical equipment - 39146B/21

WELL 20.08.70 WELLCOME FOUNDATION LTD B04 C03 D16 =DT 2167-168
Vaccine against foot-rot in sheep - 14489T/09

•WESS 14.11.77 WESTFALIA SEPARATOR AG D14 *DT 2750-787
Fruit flesh separation from skins and pips - 39241B/21

WIET/ 03.05.74 WIETZEL A D14 =IT 1029-216
Small scale, multi-purpose food processing machine - 54058W/33

WILK 18.04.72 WILKINSON SWORD LTD B05 D21 =US 4153-679
Alkylcarboxamides in cooling compsns - 67743U/45

WILL/ 24.11.72 WILLARD M J D13 =CA 1053-068
Potato-based fried food prod eg potato crisps - 26989V/15

WILL/ 24.11.72 WILLARD M J D13 =CA 1053-069
Potato-based fried food prod eg potato crisps - 26989V/15

WOLF- 07.02.74 WOLFF H APPARATEBAU D14 =SU -615-840
Continuous flow food pressure cooker - 40994W/25

WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =DT 2822-461
Wood protection against moisture-induced decay - 18077B/10

•YALD= 11.02.77 YALOVENY AGRO IND C03 D16 E12 (D13) *SU -616-278
Calcium tartrate and animal feedstuff prodn. - 40224B/21

•YALT= 09.02.77 YALTA PHYS MED TREA A89 B04 D16 J04 *SU -615-9
Electrophoretic transfer measurement of trypsin molecules - 40063B/

YAMA 19.08.76 YAMANOUCHI PHARM KK A96 D21 E16 =US 41
681
Cold permanent waving compsn. - 16156A/09

YAMA 19.08.76 YAMANOUCHI PHARMACEUT KK A96 D21 E16 =
4153-681
Cold permanent waving compsn. - 16156A/09

•YAMA 21.09.77 YAMANOUCHI PHARM KK D21 E11 *J5 4046-722
(3-Aminopropylamino) ethyl-dihydrodiene phosphorothi
mono:hydrate - 39581B/21

•YISS 22.07.77 YISSUM RES DEV CO D16 *BR 7804-662
Fermentation process - B/21

•YOSH/ 24.09.77 YOSHIKAWA K D13 E33 *J5 4047-898
Prodn. of magnesium chloride of reduced deliquescence - 39824B/21

YOUD/ 20.02.75 YOUDELIS W V D21 M26 =CA 1053-034
Amalgamable dental powder - 52114X/28

ZAMI 07.02.77 ZAMBELETTI DR L SPA B05 C03 D22 =GB 1546-295
Benzalkonium chloro-iodide - 17637A/10

•ZANE/ 13.01.75 ZANETTI P D11 *IT 1029-028
Capillary drying of food pastes - B/21

6-S D
3608-627 S43
-936-578 U47
1026-001 A49+
1931-505 B21+

5-S BD
2121-994 S48
2091-133 T16
1313-041 U15
3730-842 U20
-949-770 V28
-409-428 W42
6006-848 B19
9008-746 B19
2121-994 B21

39-T BCD
-771-536 T09
2141-901 T10
7111-422 T10
7005-047 T12
2103-402 T28
7105-544 U17
3843-451 V44
2167-168 B21

10-T DH
-772-624 T12+
7112-612 T13
7105-629 T19
7009-739 T21
2107-668 T32
--94-455 U09
--95-825 U16
3816-250 V25+
1366-914 V38+
2121-212 T48
--37-581 W52+
-980-280 X02+
T010-851 X04
-575-996 X25+
7106-581 X51
2121-212 A32
--65-156 A37+
-615-871 B21

049-T D
-773-903 T17
2151-086 T18
7009-741 T21
2111-335 T40
--91-871 T43
2151-086 U15
B 1324-116 U29
S 3801-463 V15
H -565-811 W38
A -976-493 W45
L -148-807 X16
W 7700-989 Y31
7047-033 Y51
S 2167-169 B21

205-T DE
T 2115-551 T43
L 7204-369 T43
E -781-466 T47
R 2132-364 U07
L --95-227 U11
GB 1377-243 V50
E 7402-612 W15
U -437-270 W24
A -969-556 W27
H -566-952 W43
S 2115-551 B21

1372-T DE
T 2119-231 T45
L 7203-769 T46
A 7202-716 U06
S 3775-044 U49
S 2119-231 B21

7339-U D
T 2142-205 U13
S 2142-205 X04+
S 4153-063 B21+

7743-U BD
T 2317-538 U45
L 7305-509 U45
R 2180-942 V04
ZA 7302-515 V11
J4 9019-043 V20
GB 1421-743 X04
GB 1421-744 X04
CA -984-745 X12
US 4153-679 B21

03862-V ADE
BE -801-052 V03
DT 2331-009 V04
FR 2189-006 V12
GB 1397-500 W24
US 3955-918 X21
CH -578-870 X39
CH -589-698 Y34
CA 1020-869 Y48
US 4153-065 B21

23185-V DE
DT 2244-895 V13
J4 9092-045 V45
GB 1404-534 W36
DS 2244-895 X14
US 4013-721 Y13
CA 1053-260 B21

24948-V D
BE -807-414 V14
NL 7315-667 V22
DT 2357-403 V22
FR 2207-409 V38
J4 9081-600 V41
US 3845-217 V45
ZA 7308-755 V47
GB 1401-585 W31
CA 1000-581 X51
CH -587-025 Y22
J7 8022-160 A31
DS 2357-403 B21

26989-V D
BE -807-754 V15
DT 2358-433 V23
NL 7316-093 V24
FR 2207-654 V39
US 3886-291 W23+
GB 1435-574 X20
US 3997-684 X52+
CH -593-025 A01
OE 7309-801 B01
CA 1052-623 B20
CA 1053-068 B21
CA 1053-069 B21

32823-V D
DT 2249-607 V18
DS 2249-607 B21

32890-V DJ
DT 2251-442 V18
DS 2251-442 B21

55585-V D
DT 2402-394 V31
NL 7400-524 V32
FR 2215-134 V46
GB 1460-707 Y01
DS 2402-394 B21

75854-V BDE
BE -816-235 V44+
J5 0015-803 W43
J5 0037-802 W44
US 3983-147 X41+
GB 1477-860 Y26+
IT 1022-044 A28+
J7 9009-602 B21
J5 0142-602 B21
J7 9009-603 B21

87281-V D
BE -817-772 V51+
NL 7409-830 W06+
DT 2434-874 W07+
FR 2237-905 W18
FR 2239-206 W20+
GB 1425-303 X08+
US 3981-773 X40+
CA 1026-985 A11+
IT 1029-309 B21+

24469-W CD
DT 2347-932 W15
BE -820-210 W15
NL 7411-626 W15
SW 7411-097 W20
DK 7404-637 W24
FR 2244-784 W26
J5 0058-001 W29
US 3945-996 X14
OE 7407-622 X50
OE 7407-620 X50
OE 7606-034 Y39
GB 1491-245 Y45
CH -598-296 A19
CA 1049-026 B10
DS 2347-932 B21

24567-W DE
DT 2443-191 W15
NL 7410-993 W16
FR 2246-227 W28
J5 0063-148 W30
US 3967-629 X29
GB 1457-849 X50
DT 2462-724 A19
SU -580-804 A41
SU -587-856 A47
CA 1044-700 B02
DS 2443-191 B21

29076-W BCDE
BE -821-163 W18
NO 7403-738 W24+
NL 7413-589 W18
DT 2449-863 W19
SW 7412-234 W23
DK 7405-419 W29+
J5 0064-295 W30+
SF 7403-025 W32+
SF 7403-024 W32+
DL -114-082 W36+
PT --62-797 W37+
ZA 7406-519 X03
NL 7314-589 X51
OE 7408-363 Y01
GB 1481-600 Y31+
OE 7508-843 Y44
DK 7702-690 Y46+
SW 7708-594 A05+
DT 2462-675 A09+
IL --45-833 A33+
CH -603-664 A37+
CH -605-979 A48+
NO 7803-827 B06+
CS 7407-099 B14+
DS 2462-675 B21+

34662-W DJ
DT 2453-670 W21
DS 2453-670 X44
IT 1029-311 B21

36075-W D
DT 2356-082 W22
DS 2356-082 B21

40991-W DE
BE -824-927 W25
NL 7501-322 W34
DT 2504-374 W34
DK 7500-362 W43
FR 2259-544 W47
J5 0123-854 W48
ZA 7500-570 X13
US 3956-513 X21
DL -121-133 X36
SW 7501-084 X38
GB 1452-871 X43
DL -127-568 A06
DL -129-289 A14
OE 7500-815 A18
OE 7706-553 B09
IT 1029-414 B21

40994-W D
BE -824-936 W25
NL 7501-256 W34
DT 2405-807 W35
FR 2260-357 W48
DL -118-522 X22
US 3965-806 X28
GB 1487-814 Y40
CA 1042-703 A49
SU -615-840 B21

42906-W ADEF
DT 2362-701 W26
GB 1403-478 W34+
DS 2362-701 Y40
US 4153-064 B21+

44677-W D
DT 2423-097 W27
NL 7415-871 W27
SW 7415-766 W33
FR 2255-310 W45
ZA 7407-639 X06
CH -582-196 X52
GB 1469-579 Y14
DS 2423-097 Y42
IL --46-141 A06
IT 1024-362 A33
SU -615-862 B21

46037-W CDH
BE -823-623 W28
DT 2460-672 W29
NL 7416-644 W30
NO 7404-645 W36
DK 7406-745 W40
SF 7403-708 W40
FR 2256-957 W43
J5 0116-680 W45
HU T012-254 X43
US 3996-105 X51
GB 1467-022 Y11
CA 1037-398 A37
SU -615-870 B21

50934-W D
BE -824-441 W31
NL 7501-170 W34
DT 2417-291 W34
J5 0111-281 W44
DK 7500-125 W44
FR 2259-900 W47
US 3966-555 X28
GB 1450-487 X39
CH -585-793 Y18
DS 2417-291 A10
J7 8018-592 A28
CA 1039-672 A42
IT 1029-379 B21

52400-W DE
BE -824-735 W32
NL 7500-067 W33
DT 2404-047 W34
OE 7500-623 W41
FR 2258-833 W46
GB 1451-742 X41
CH -595-836 A12
US 4153-726 B21

52465-W D
DL -113-305 W32
DL -113-305 B21

52665-W AD
DT 2403-225 W32
BE -824-671 W32
NL 7500-216 W32
J5 0113-557 W44
DK 7406-556 W44
FR 2258-867 W46
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DS 2519-618 Y10
GB 1546-481 B21

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J5 1135-172 Y02
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15001-Y D
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J5 2090-695 Y36
FR 2338-287 Y44+

514-Y
1541-511 B10+
4146-706 B15+
4153-508 B21+

958-Y CD
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1053-064 B21+

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4153-686 B21

777-Y AD
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O 7603-007 Y16
A 1053-066 B21

627-Y AD
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2741-229 B13+
4046-850 B21+

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T 2714-232 Y44
W 7704-091 Y46
5 2122-686 Y47
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R 2347-439 A05
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R 2349-336 A07+
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CENTRAL PATENTS INDEX

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Section D:

FOOD
DETERGENTS

ABSTRACTS

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COUNTRY	PUB. DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	22 MAY - 28 MAY 79	872,192 - 872,347
-Non Delayed	16 MAY 79	873,672 - 873,860
BRAZIL	15 MAY 79	7,704,875 - 7,901,373
CANADA	1 MAY 79	1,053,401 - 1,053,850
	8 MAY 79	1,053,851 - 1,054,300
DENMARK	7 MAY 79	7,704,087 - 7,804,501
W.GERMANY		
-DAS	23 MAY 79	1,492,849 - 2,837,253
-OLS	23 MAY 79	2,726,452 - 2,850,977
EUROPE	30 MAY 79	01,965 - 02,171
FRANCE*	23 MAR 79 (BOPI 27 APR 79)	2,400,824 - 2,401,595
UNITED KINGDOM	31 MAY 79	1,546,631 - 1,546,960
		2,007,951 - 2,008,370
JAPAN		
-Unexamined	—	47,005,362 - 53,042,418
	17 APR - 22 APR 79	54,048,764 - 54,051,300
-Examined	3 MAY - 9 MAY 79	79,010,281 - 79,010,800
NETHERLANDS	15 MAY 79	160,145 - 160,469
	14 MAY - 20 MAY 79	7,712,365 - 7,811,341
NORWAY	7 MAY 79	7,703,424 - 7,900,908
AUSTRIA	15 MAY 79	7,008,768 - 7,900,184
RES. DISCLOSURE	MAY 79	181,001 - 181,086
FINLAND	30 APR 79	7,702,068 - 7,900,265
SOVIET UNION	—	141,671 - 617,855
SWEDEN	14 MAY 79	7,711,008 - 7,900,382
UNITED STATES		
-Reissues	15 MAY 79	Re29,993 - Re30,000
-Patents	15 MAY 79	4,153,952 - 4,155,121

*Printed patents actually published early - mid May, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

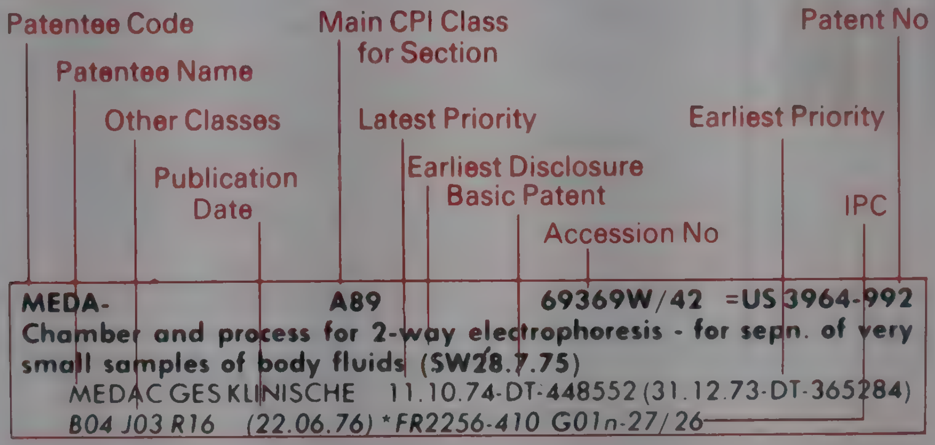
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
Patent No
IPC

MEDA- **A89** **69369W/42 =US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

ATO/ ★ D11 41302B/22 ★J5 4049-355
**odn. of noodles having fine pore structure - by kneading flour
ith sodium chloride soln. contg. hydrogen peroxide, adding e.g.
ater soluble ferric salt and heating**
SATO M 28.09.77-JA-115531
(18.04.79) A23l-01/16

nproved prodn. of dried or α-starch noodle (I) is effec-
d by (1) kneading wheat flour with NaCl soln. contg.
w conc. of hydrogen peroxide (II), (2) adding trace of
ne of cpds. (III) selected from erythorbic acid, catalase,
ulphite, water-soluble ferric salt or cysteine and (3)
eating the mixture at high temp.

(I) having fine pores can be produced and therefore (I)
an be boiled in a shorter time than other (I). (II) is de-
omposed by contact with (III) and oxygen generated. By
e generation of oxygen, many fine pores form in (I).
3.9.77. as 115531 (2pp42)

ATE- ★ D11 41693B/22 ★NL 7811-185
**ingle pack dried baking mixt. - contg. yeast and opt. chemical
sing agents, e.g. for domestic prodn. of bread, rolls, etc.**
PATENT TECHNOLOGY 11.11.77-US-850475
(15.05.79) A21d-08/04

Packaged baking mixt. for domestic use comprises a dry
ixt. of (i) 75-85% flour with a moisture content of <8%,
i) 1.75-3.25% special dried active yeast with a moisture
ontent of <5 wt.%, (iii) 4.5-7.5% of a dry filler material
ith a moisture content of <2 wt.%, (iv) ~5% dry flavour-
g ingredients, and (v) 0.5-5% dry dough conditioner and
or improving agents. The mixt. is packaged and sealed
oxidn.- and moisture protective packaging.

The prod. is supplied in a single pacakage in dry form,
hich is stable for long periods on storage. The prods.
an be used to make a wide range of yeast-risen prods. on
domestic scale, such as bread, rolls, pancakes, bis-
uits, waffles, pizza bases, etc. 10.11.78 as 011185
1pp513).

OAKE- ★ D11 42234B/22 ★US 4154-537
Continuous mixer for baking ingredients - in which gas supplied is controlled to vary mix density
OAKES MACHINE CORP 23.08.77-US-827435
(15.05.79) B01f-15/04

Continuous mixer for wet and dry ingredients comprises a gas inlet port, an ingredient inlet port and a mix outlet port. A conduit which receives the mix from the outlet port has a radiation sensitive densitometer for monitoring the density of the mix. flowing through the conduit. A valve responsive to the densitometer varies the supply of gas to the gas inlet port to control the density of the mix flowing through the conduit.

Used for premixing baking ingredients, e.g. milk, water liq. fat and flour. The mixer produces a mix. of uniform density. 23.8.77 as 827435 (4pp67)

RICH- ★ D11 42345B/22 ★US 4154-863
Intermediate moisture frozen batters - with controlled fat-sugar content, are soft at low temps. and keep without spoilage on thawing
RICH PRODUCTS CORP 24.01.78-US-871995 (28.01.77-US-763613)
(15.05.79) A21d-10/04

A microbiologically stable flour based batter comprises 15-45wt.% water, sugar in a wt. ratio w.r.t. water of 1-2:1, 2.5-30% fat, and minor amts. of salt, emulsifier, stabiliser and flavouring, provided that the amt. of fat is less than the amt. of water, and the water activity is 0.8-0.9. At least 50% of the sugar component is dextrose and fructose.

The product is storable under refrigeration, is spoonable at freezer temps., and can also be kept for long periods after thawing without bacterial spoilage. 24.1.78 as 871995 (20pp955)

See Also

D13 NL 160152
D25 J5 4050010
D25 J5 4050011
D25 J5 4050012

D12: MEAT; FISH PROCESSING

OPP- ★ D12 40645B/22 ★BE -873-524
**evice for pressing e.g. ground meat into disc shaped prod. - has
am for compressing heat into form in mould**
KOPPENS MACHINEFAB 10.02.78-NL-001537
(16.05.79) A22c A23p

A deformable feedstock such as ground meat is pressed in-
o a disc shaped prod. by means of a machine comprising
hopper with inclined walls, a ram for compressing the
neat into the form, a scraper for scraping one wall of the
hopper and a flat plate conveyor with circular openings
forming the mould for the prod. together with a device for
pushing the finished prod. out of the mould. The ram is
fixed against one wall of the hopper, the lower end of the
wall continuing downwards to form the compression chamber in which the meat is compressed.

The ram withdraws into an offset wall which keeps the feedstock clear of the returning ram. The opposite wall of the hopper is also inclined and is equipped with a scraper working in unison with the ram so that, as the ram withdraws more product is pushed into the ram chamber by the scraper. The plate conveyor moves below the chamber in steps such that the form holes are opposite the lower end of the chamber when the ram is descending.

The filled form comes to rest beneath the pushing out device on the next downward stroke of the ram so that the finished article is pressed out at the same time as the next one is formed. 17.1.79 as 873524 (10pp1370)

TAKE ★ D12 41304B/22 ★J5 4049-365
Improving the quality of frozen ground fish meat etc. - using an agent contg. propylene glycol fatty acid ester, edible vegetable oil, sucrose and/or sorbitan fatty acid ester etc.
TAKEDA CHEMICAL IND KK 26.09.77-JA-115818
(18.04.79) A23l-01/32

An agent (I) for improvement of quality of frozen ground fish meat (II) or fish meat paste (III), is prepared by emulsifying (i) 1 wt. part of propylene glycol fatty acid ester (IV) which is liquid at room temp., (ii) 0.15-20 wt. parts of edible vegetable oil (V) which is liquid at room temp., (iii) 0.015-2.5 wt. parts of sucrose fatty acid ester and/or sorbitan fatty acid ester and (iv)1- 30 wt. parts of one or more of D-sorbitol, D-mannitol and others.

Whiteness and elasticity of (II) or (III), can be increased by the present method. 26.9.77. as 115818 (6pp42)

LEME= ★ D12 41783B/22 ★SU -599-967
Food prod. e.g. meat slicer - has feeding conveyor and carriage with needles to hold meat as it passes across line of rotating knife
LENGD MEAT IND PROD 07.06.76-SU-369414
P62 (10.05.78) A22c-17 B26d-04/24

The slicer includes a cutting unit having intermittent mo-ion, feeding conveyor with needles, and motor.

The prod. is more reliably held during the cutting rocess by adding a carriage on which is a support and eedles on which the product is impaled. The feeding onveyor is located opposite the carriage with the latter stablished so that it can move reciprocally across the irection in which the product is moving and parallel to he plane of rotation of the knife. The support has a rack ith guiding holes for the needles and which is spring-oaded. Prior to starting, the carriage is moved to the urthest position away from the knife. The meat product s impaled on the needles, either manually or by supplying it on the conveyor.
Molozhavtsev, L.G., Fokin, V.I. Bul. 12/30.3.78.
7.6.76. as 369414 (6pp29)

FISH= ★ D12 41790B/22 ★SU -604-550
Small smoked fish e.g. sprats filleting and packing prodn. line - which uses three conveyors and fillet row arranger prior to placing inside containers and sealing
FISHING FLEET DES 01.03.76-SU-332819
Q31 (26.04.78) A22c-25/14 B65b-25/06

The machine comprises conveying unit, head-and-tail-removing mechanism, means to form the fish into single-layer rows, pusher to move the assembled fish along, and mechanism to pack the fish into the containers.

The productivity is increased, by making the conveying unit with three separate but kinematically-connected conveyors one after the other. The first two have cells for the sticks and the fish, the cells in the second being arranged at a pitch equal to the fish length at least. The third conveyor is directly in front of the device which forms the portions of fish, and this is capable of rotating through 180°.

The attachment to pack the rows into the container is mounted on a plate which can move backwards and forwards. Between the second and third conveyors are chutes with channels sloping downwards, with the head-removing mechanism below the lower arm of the second conveyor.
Stolin, L.M., Mikhailov, G.V., Osovets, V.I. et al. Bul 16/30.4.78. 1.3.76. as 332819 (8pp29)

STOR- ★ D12 42141B/22 ★US 4153-971
Stunning trough for immobilising poultry before slaughter - with insulating end plates carrying bus/bars and supporting electrode rods
STORK-GAMCO INC 02.02.78-US-874336
(15.05.79) A22b-03/06 A22c-21

The stunning trough has non-conducting upright end plates, with buss bars secured to them. Electrode rods extend between the end plates and alternate rods have corresp. ends electrically connected with one buss bar, while the remaining rods have their opposite corresp. ends connected to the other buss bar.

The stunning trough is mounted in a non-conducting shell which has non-conducting end caps covering the buss bars and exposed terminal ends of the rods.

The appts. is used to stun poultry to immobilise them prior to killing. The appts. is efficient and yet the operator is protected against electric shock. 2.2.78 as 874336 (5pp295)

STOR- D12 43142U/31 =US 4153-972
Poultry processing machine - for prodn of ovenready/dressed birds
STORK-GAMCO INC (GAIN) 12.01.72-US-217206 (18.06.75-US-587838)
*(15.05.79) *DT2301-534 A22b-03/08*

Poultry eviscerating appts. includes a vacuum tool insertable via a pre-cut opening into the body, the tool being reciprocally and selectively movable on a carriage device for movement into and out of the cavity.

The tool is divided into ≥ 2 separate longitudinal passage ages through which matter from the body is drawn by the vacuum. The tool has a spacer to maintain an air space between the tool and the body to prevent collapse of the body. The appts. provides for accurate removal of the internal matter and can operate at process-line speed.
18.6.75 as 587838 Div ex 3908229 (16pp1379)

ARMO D12 17707B/09 =US 4153-9
Sterilisation of rotating meat saw - and arcuate guard using jets hot water
ARMOUR CO 26.01.76-US-652405 (14.06.77-US-806468)
*P62 (15.05.79) *US4139-926 A22b-05/20 +B26d-07/10*

Appts. for cutting materials, e.g. animal carcases, includes a cutting blade and a guard, together with a devi for directing hot water at ≥ 180°F at the blade and guard between cutting operations.

The blade is disc-shaped and the guard arcuate. The water sterilises the blade and guard to prevent contamination of the material being cut. The parent is concerned with a process using the above appts. 17.2.78 as 878697
Div ex 4139926 (4pp1379)

HOLT ★ D12 42142B/22 ★US 4153-97
Hamburger patty prodn. in reciprocating mould - filled from hopp with discharge auger and pressure pad
HOLLYMATIC CORP 16.09.77-US-833899
(15.05.79) A22c-07

Ground raw meat is removed from a hopper and delivere to a pressure chamber by an auger. A ram reciprocates with the pressure chamber to transfer the meat into a mould cavity within a reciprocating plate.

During the compression stroke of the ram, excess meat fromthe chamber is returned to the hopper having passed the auger. A baffle is located diametrically opposite to the pressure chamber to control the pressure while meat is thus being returned to the hopper. 16.9.77 as 833899 (10pp295)

JOHJ ★ D12 42143B/22 ★US 4153-97
Cutting thin walled tube into segments - by unshirring a portion ar parting while tubing is continuously advanced
DEVRO INC 23.01.78-US-871671
(15.05.79) A22c-13

Shirred casing is advanced continuously along a mandrel and passes beneath a segmenting station. An extendible arm grips a portion of the casing and advances it downstream at a greater rate than the casing feed so that a section becomes deshirred. A second arm then advances the unshirred section to lie between cutter jaws which cut-off a length of casing. Finally the length of casing is carried along the mandrel and discharged.

The appts. cuts shirred casing into shorter segments. By deshirring the casing before it is cut, a regular end to the casing results without the formation of torn sections. 23.1.78 as 871671 (11pp295)

UNIC D12 68906A/39 =US 4154-8
Articles mfr. from collagen, esp. sausage wrapping - contg. wate soluble anionic polysaccharide as dehydrating agent
UNION CARBIDE CORP 22.03.77-US-780224
*A97 (A11) (15.05.79) *BE-865-144 +A23l-11/31 D01f-04*

A shaped collagen article is produced by dewatering the shaped article prior to the final drying step by immersio in an aq. dewatering bath contg. ≥ 0.01wt.% w.r.t. bath a water-soluble anionic polysaccharide.

Polysaccharide used is naturally occurring or formed by de-esterification of polysaccharide esters of polygalacturonic acid, sodium carrageenan, gum arabic, pectic acid pectic, low methoxyl pectin, sodium polypectate or chondroitin sulphate. Collagen article is subjected to fina drying.

Prod. is used in tubular structures used as sausage and frankfurter casings. 22.3.77 as 780224 (5pp931)

See Also

D13 J5 4050008

D13: OTHER FOODSTUFFS

T ★ D13 40639B/22 ★BE -872-336

noving flatulent sugars from soya - by anaerobic fermentation ng Saccharomyces uvarum

SOC PROD NESTLE SA 04.01.78-CH-000069

(28.05.79) A23l

e process comprises prepg. a soya suspension contg. 5% dry material which is inoculated with ⩾1 strain of ccharomyces urvarum e. g. CBS 1502, obtained by grow- on a medium contg. ⩾1 sugar having ⩾1 αD-galacta-ranosyl link. The suspension is fermented in anaerobic nditions at 15-50°C for ⩾8 hrs.

The soya is used as a protein in the food industry, esp. dietetic products. The product has a neutral taste and ell. The process is economic and enables the total de-adation of soya sugars. 28.11.78 as 872336 (16pp597)

M ★ D13 40694B/22 ★CA 1053-497

serving film wrap for foods - contg. synergistic mixt. of ioxidant and antimicrobial agent

BRISTOL MYERS CO 10.03.75-US-557215

A92 E13 (A14 A82 E14) (01.05.79) A23l-03/34

ckaging film useful in preserving food substances contg. s, fats and chromoproteins, consists of a flexible film ated with 0.18-0.22 lb/1000 ft^2 of a synergistic preserv- compsn. contg. antioxidant(s) (I) and an antimicrobial ent (II) dispersed in a PVA carrier. (I) is (iso)ascorbis id, (II) is a blend of equal wts. of Me and Pr-p-hydroxy-nzoate. Wt. ratio of (II):(I) is 1-5:1.

The combination of (I) and (II) has a synergistic preserv tive effect on a variety of foods. 12.2.76 as 245579 pp478)

AR/ ★ D13 40712B/22 ★DS 1492-849

rous dessert piece prepn. - by casting aq., liq. creamy compsn. in oulds and freezing before freeze-drying

STARKE A 30.06.65-DT-492849

(23.05.79) A23l-01 A23p-01

essert pieces having a porous structure are prepd. by freezing an aq., fluid and creamy dessert compsn. in oulds having a given shape and (ii) freeze-drying the fr-en pieces. The dessert compsn. may contain milk, cr-m, sugar, cocoa and/or fruit or vegetables or cheese, sh, ground bakery prods. or spice.

Even porosity can be maintained up to prod. surface. n eating, penetrating saliva is quickly saturated with ar-na, leading to conc. flavour effects and increased enjoy-ent. Mould contours are preserved. Microorganisms, roteins, ferments and vitamins remain active.

Multi-layer desserts can be prepd. by freezing one la-er before applying and freezing a next creamy layer, and eeze-drying, e.g. in vacuo at -20 to -80°C. The layers ay have different porosity. The creamy compsn. can be amed by introducing a gas before moulding and freezing. .6.65 as 492849 (4pp200)

CO- D13 44878R/25 =DS 1792-084

able beverages prepd from clotted milk

ESCORA FINANZ ANST (MUN -) 20.07.68-DT-792084

*P13 (23.05.79) *FR2013-403 A23c-09/12*

acid milk drink is prepd from acidified milk, pref. ologically acidified milk and fruit or vegetable juice, co- or other flavourings. The acidified milk is mixed with ice sugar and pectin; brought to pH 3.8-4.2 by addn of tric acid; homogenised at 51-54.5 (53)°C and 350-380 m.; poured into flasks and pasteurised at 60-65°C for -30 minutes.

The mixt. is pref. prehomogenised at 12-16°C and 150-0 atmos. The drink remains homogenised for several eeks. 20.7.68 as 792084 (6pp068)

EGS D13 05599Y/04 =DS 2529-854

ptically pure N-acetyl L-methionine prepn. in high yields - from L-ethionine and acetic anhydride

DEUTSCHE GOLD & SILBER 04.07.75-DT-529854

*E16 (23.05.79) *BE-843-775 C07c-149/24*

-Acetyl-L-methionine (I) useful as a food additive, is by reacting L-methionine with acetic antiydride in presence of aq. alkali. Reaction is effected at 20-60°C and pH 6.5 - 10.0 to obtain (I) in good yield and in a high state of purity. 4.7.75 as 529854 (3pp068)

SHIO D13 00113X/01 =DS 2535-171

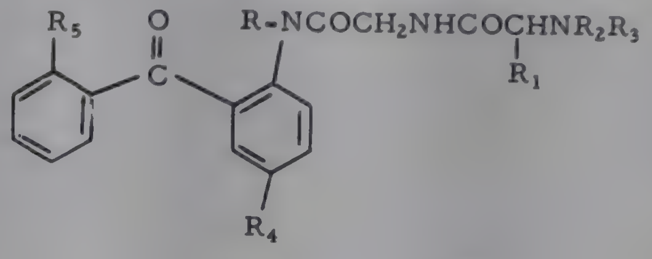
Aroyl-aryl-substd. dipeptides - with anxiolytic, sedative, anticonvulsant, hypnotic and muscle-relaxant activity

SHIONOGI KK 06.08.74-JA-090566 (06.08.74-JA-090565)

*B05 C03 E14 (B02 B03) (23.05.79) *BE-832-190 A61k-37/02 C07c-103/52*

Benzophenone derivs. of formula (I) are new. In I, R is H, 1-3 C alkyl or 2- -(N,N-diethylamino)ethyl; R_1 is H, 1-6 C alkyl or $PhCH_2$; R_2 is H, 1-3 C alkyl, glycyl or glycylglycyl; R_3 is H or 1-3 C alkyl; R_4 is halogen or NO_2; and R_5 is H or halogen.

Prepn. of I and their nontoxic salts comprises reaction of corresp. 2-aminobenzophenones or 2-aminoacetylaminobenzophenones with appropriate aminoacids; other methods are also availabe. The prods. are used as tranquillisers, sedatives, antiepileptics, hypnotics and muscle relaxants. 6.8.75 as 535171 (11pp047)



(I)

CORP D13 19106X/11 =DS 2535-963

Stabilisn. of xanthophyll esters extracted from Tagetes - by partial saponification, to give chicken feed additive

CPC INTERNATIONAL INC 12.08.74-US-496489

*C03 (23.05.79) *DT2535-963 A23k-01/18*

Poultry fodder additive comprises a stabilised xanthophyllic ester which is partially hydrolysed, (leaving 10-20 wt% ester), followed by neutralisation of excess free alkali with an edible weak acid.

These additives promote pigment formation. 12.8.75 as 535963 (4pp047)

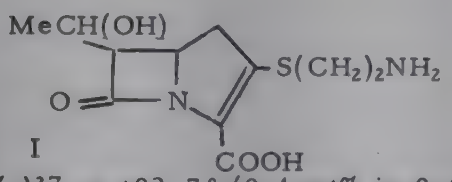
MERI D13 31696X/17 =DS 2552-638

Broad spectrum antibiotic thienamycin - from aerobic cultivation of Streptomyces cattleya

MERCK & CO INC 25.11.74-US-526992

*B02 C02 (D16 D22) (23.05.79) *US3950-357 A61k-31 C07d-487/04*

Thienamycin of formula (I) is a new antibiotic. Prepn. of (I) comprises propagation of Streptomyces cattleya, NRRL 8057, in an aq. nutrient medium under submersed aerobic conditions; I is then isolated by the usual methods, and has $(\alpha)^{27}_{D}$ = +82.7° (0.1 wt% in 0.01M phosphate buffer, pH 6.95). The prod. has a wide range of antibiotic activity, esp. against resistant strains. 24.11.75 as 552638 (20pp)



I

BRIE- ★ D13 40729B/22 ★DT 2750-950

Cheese prodn. with min. protein loss - by setting cheese factory milk to final dry solids and protein content by adding milk protein materials

BRIEL D C & CO GMBH 15.11.77-DT-750950

(23.05.79) A23c-19/02

In cheese prodn., the addn. of milk protein or milk-protein-contg. materials adjusts cheese factory milk compsn. to the final dry solids and cheese protein content.

Raw cheese compsn. can be adjusted by dosage of components in cheese factory milk. Water or aq. solns. may be added to control ratio between cheese components. After homogenising, the compsn. can be soured and coagulated.

The cheese yield can be increased by ≥25%. Whey and waste water formation can be prevented or controlled to 0-80% w.r.t. cheese factory quantity. Protein losses are negligible to nil. 15.11.77 as 750950 (4pp200)

BADI ★ D13 40773B/22 ★DT 2751-768

Feedstuff additive for monogastrenes e.g. piglets - contains green fodder, esp. grass, and aliphatic carboxylic acid and/or salt preservative

BASF AG 19.11.77-DT-751768

C03 (23.05.79) A23k-01/16

Feedstuff additive for monogastrenes contains comminuted green fodder, pref. grass or opt. sugar beet leaves, admixed with 1-5 wt.% organic acid and/or organic salt having a preserving activity. Pref. preservative is an aliphatic 1-4C carboxylic acid and/or its salt, partic. propionic acid and/or a propionate.

The fodder additive may be given to pigs and poultry, esp. piglets and pigs for fattening. Acid and/or salt preservative addn. reduces green fodder harvesting to 3-4 cuts/year, whereby a const. nutritional value of fodder can be achieved. Preservation, e.g. in silos, causes no problems. Propionic acid kills or inhibits microorganism growth and increases green fodder energy content. Raw fibre components can be left out of diet. The preserved fodder is digested well as a porridgy paste, and its digestibility is higher than that of hay, e.g. the digestibility of grass paste + 1 wt.% propionic acid is 74.4% compared to 69.7% for hay. 19.11.77 as 751768 (14pp200)

HENK ★ D13 40798B/22 ★DT 2751-902

Growth-promoting animal feed - contg. antibiotic avoparcin or spiramycin and proteolytic enzyme

HENKEL KG AUF AKTIEN 21.11.77-DT-751902

C03 (23.05.79) A23k-01/17

Animal feed mixture, based on carbohydrates, protein, fats and opt.usual additives, contains (a) 5-100 ppm. avoparcin or spiramycin and (b) proteolytic enzymes in an amt. such as to give an enzymatic activity of 0.05-2.5 mTU/g.

Combination of the antibiotics avoparcin and spiramycin with proteolytic enzymes gives an increase in weight gain and feed efficiency greater than that obtd. by addn. of the antibiotics alone. The feed mixes are partic. suitable for turkeys, but can also be used e.g. for pigs. 21.11.77 as 751902 (10pp280)

MAUG/ ★ D13 40805B/22 ★DT 2751-994

Ice cream portioning tool - with water filled piston expelling cut/out ice cream cube

MAUGG J 22.11.77-DT-751994

(23.05.79) A23g-09/28

An ice cream portioning tool has a square cylinder with a handle by which ice cream cubes can be cut out. A sliding piston inside the cylinder is moved forward by hand against a pressure spring or by a pistol grip lever to expel the portion. The piston is filled with water so that the higher temp. facilitates the cube expulsion.

This saves the scraping into semispherical spoons and speeds up the dispensing of ice cream portions. 22.11.77 as 751994 (10pp39)

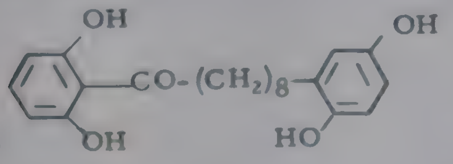
LIOC ★ D13 40837B/22 ★DT 2842-221

Di:hydroxy-di:hydroxy-phenyl-octyl-phenone antioxidant - for foods, plastics, rubber, pharmaceuticals, cosmetics and paper

LION DENTIFRICE KK 22.08.78-JA-102044 (22.11.77-JA-140372)

A60 B07 E14 (D21) (23.05.79) C07c-49/82 C08k-05/13 C09k-15

2', 6'-Dihydroxy-9-(2, 5-dihydroxyphenyl)octylphenone of formula (I) is new:



(I)

(I) is used specifically as antioxidant in an organic material. It is useful in foodstuffs, e.g. lard and oil, and is much more effective than butylhydroxyanisole (BHA). Unlike most synthetic antioxidants, there are no safety problems, the LD$_{50}$ value being over 2000 mg./kg. mouse, which is about the same as that of dibutylhydroxytoluene (BHT) and much better than that [illegible] 4400 mg. /kg. mouse). It is effective in amts. of 0.001-0.1 wt.% in lard and other foodstuffs but larger amts. do not cause problems, since it is tasteless, odourless, almost colourless and non-irritating. (I) can also be used as antioxidant in other organic materials, including plastics, rubbers, pharmaceuticals, cosmetics, paper, etc. 28.9.78 as 842221 (19pp16)

TOPP ★ D13 40838B/22 ★DT 2843

Preserving vegetables and fruit during storage - by adding at l two main adsorbents for absorbing gases generated and release

TOPPAN PRINTING KK 19.01.78-JA-004733 (21.11.77-139636)

(23.05.79) A23b-07/14

Particulate compsn. for keeping vegetables and fruit in fresh condition, consists of ≥2 main adsorbents, name a zeolite, bentonite and active C.

The adsorbents absorb gaseous C_2H_4, aldehydes and cohols released by vegetables and fruit during storage. Over-ripening and rotting are prevented.

The concn. of each main adsorbent is pref. 5-95 (20 80) wt.% of total main adsorbents. The compsn. may al contain ≥1 auxiliary adsorbent, namely activated Al_2O and/or activated clay. A pref. compsn. contains 97-50 % main adsorbents and 3-50 wt.% auxiliary adsorbent(s The preservatives are kept in permeable bags, e.g. of paper and perforated polyethylene film laminate. 5.10. as 843499 (+26.12.77-JA-157015) (34pp200)

GLAC- ★ D13 40870B/22 ★DT 2849-

Ice cream cone closure appliance - extracts, turns and folds cow closing jaws

GLACE-BOLAGET AB 21.11.77-SW-013124

Q31 (23.05.79) B65b-07/28

A machine for packaging ice cream cones with a spheri bulb of ice on top uses suction cups to remove a sheet i the shape of a truncated cone from a magazine. The suc tion cup part is inverted over the cone and spreading ja with bristles inside are moved down to fold the sheet ov the ice cream bulb. The mechanism then returns to its initial position.

Pallets and transport boxes can now hold a much gre er number of ice cream cones. A minimum of package space is wasted. 15.11.78 as 849623 (15pp39)

ITST- ★ D13 40884B/22 ★DT 2849-

Silage conservation and fermentation control - by adding al sulphite, bi:sulphite and/or metabisulphite

INT STOCK FOOD CORP 18.11.77-US-852645

(23.05.79) A23k-03/03

In a method for conserving and controlling the fermenta tion of silage and cereal prods. with a high mixt. conte the fresh silage and/or cereal prods. are mixed with a alkali metal sulphite, bisulphite and/or metabisulphite give an anaerobic atmosphere in the silage and/or cere prod. mixt. without destroying significiant amts. of the natural bacteria which are present in fresh silage and/ cereal prods. with high moisture content and are involv in fermentation.

New additives for silage and ceral prods. with high moisture content consist of (a) 10-97% sodium, potassi magnesium or ammonium sulphate, (b) 0.3-3% amyloly enzyme and (c) 2-20% alkali metal sulphite, bisulphite or metabisulphite.

The alkali sulphite, bisulphite or metabisulphite act as an oxygen scavenger and induces anaerobic condition By correct choice of concn., undesired microorganism are suppressed, but the natural bacteria which are inv ed in the fermentation are unharmed, so that a pleasan tasting and-smelling nutritive prod. is obtd. 17.11.78 a 849902 (14pp280)

STUS/ ★ D13 40944B/22 ★EP ---2-

Filling containers with fruit on top yogurt - using incubation refrigeration to produce yogurt with fruit supporting gel strength

STUSSI W E 28.08.78-US-937596 (10.11.77-US-850410)

Q31 (30.05.79) A23c-09/12 B65b-03/04

D/S: E(BE, CH, DT, FR, GB, NL, SW)

Sundae-style yogurt is introduced into containers havi a removable lid at one end and an opening at the opposi end. The container is positioned so that its lid is on th ottom and its opening at the top.

A fruit fraction is introduced through the opening ollowed by a bacteriologically innoculated liq. milk fracon. The opening is then sealed and the contents of the ontainer incubated and refrigerated so that fermentation f the milk fraction produces yogurt having sufficient gel trength that when the container is positioned with its lid ppermost the yogurt in the bottom of the container supprts the fruit fraction above it.

Method provides sundae style yogurt in which a top ayer of fruit preserves is supported above the yogurt.

The yogurt and fruit fractions can be deposited in the ontainers quickly in a commercial prodn. line process. The fruit fraction remains as a separate discrete layer vith no intermingling with the yogurt for 8 weeks or more. 9.11.78 as 101341 (25pp67).
E) ISR: US3269842; DT2500224; 1 Journal Reference.

MOSE ★ D13 41010B/22 ★FR 2400-848
Preparing vegetables for storage, esp. tinned mushrooms - by mmersing in dilute alkali under reduced pressure
MOSER, SOC NOUVELLE 25.08.77-FR-025965
(27.04.79) A23b-07/10

After topping/tailing the vegetable is immersed at amoient temp. in a dilute soln. of an alkaline or alkaline earth metal hydroxide in an area of reduced pressure for a max. period of about 30 mins. The vegetable is then washed, followed by blanching and cooking. It is then further washed and then canned in a soln. comprising NaCl and citric acid, followed by sterilisation.

Process is esp. applied to mushrooms. It avoids water loss in cooking and sterilisation with entrainment of natural constituents, whilst preserving the appearance, taste and texture and increasing the yield. 25.8.77. as 025965 (6pp597)

NAVU- ★ D13 41029B/22 ★FR 2401-066
Prepn. of treaded packaged chestnuts - with vacuum packaging and no additive or syrup
INST NAT VULGARISAT 28.06.77-FR-019884
A92 Q31 (27.04.79) B65b-25/04 B65b-31/04 B65b-55/06

The process comprises (a) peeling, sorting and finishing; (b) soaking in cold water and opt. freezing; (c) putting in a container for sterilisation and cooking in an autoclave followed by rapid cooling. The container is a sachet which can be put under vacuum and sealed. The chestnuts are put into the sachet without additives. The sachet is put under vacuum and sealed or put under vacuum, then under inert gas at low pressure or at atmospheric pressure, and then sealed, followed by autoclave treatment.

The process avoids using a salt or sugar syrup. The chestnuts retain their natural flavour. Also after opening the container, they can be kept longer in the refrigerator than present products. 28.6.77. as 019884 (7pp597)

ASTR D13 64959Y/37 =GB 1546-747
Antibacterial compsns. esp. for use as feed additives - contg. lactoperoxidase, thiocyanate and peroxide donor
ASTRA-EWOS AB 08.03.76-SW-003075
*B05 C03 (31.05.79) *BE-852-195 A23k-01 A61k-33/40 A61k-37/50*

Foodstuff or animal feedstuff comprises an antibacterial system which is activated in the gastrointestinal tract and comprises a lactoperoxidase, a thiocyanate and a solid, water soluble peroxide donor which is an alkali metal percarbonate, an alkaline earth metal peroxide or a carbamate peroxide. Pref. the feedstuff comprises 160-3500(160-1750)ppm/kg. thiocyanate (as NaSCN), 210-4000(210-2000)ppm/kg. peroxide donor (as Na percarbonate) and 10-200-(10-100)mg./kg. lactoperoxidase. An antibacterial compsn. contg. the above components is also claimed.

The compsn. prevents gastrointestinal infections e.g. caused by E.coli or Salmonella without the risk of creating antibiotic resistant bacterial species and without the high cost of vaccination. 7.3.77 as 009566. (9pp945)

CORP ★ D13 41080B/22 ★GB 2007-961
Low-calorie peanut spread - comprising dispersion of peanut meat in reduced amt. of oil
CPC INTERNATIONAL INC 09.11.77-US-849732

Peanut spread comprises a dispersion of finely divided peanut meat in an oil. The oil content is 20-35wt.% and the wt. ratio of oil to peanut protein is 1:2 to 4:3 (pref. < 1:1).

The spread is produced by subjecting a mixt. of 1 pt.w ground roasted peanut meat and $\leqslant$1 pt.wt. defatted grour roasted peanut meat to mechanical agitation at a shear rate of 1-100 sec^{-1} at 25-80°C. The prod. pref. has a protein content of $\geqslant$35wt.% and a 40°C viscosity of 1-50P It can contain $\geqslant$35wt.% peanut protein, $\leqslant$15wt.% non-peanut protein, $\leqslant$3wt.% surfactant and $\leqslant$10wt.% fibre.

The spread has a lower calorific value than conventional peanut butter while retaining similar organoleptic properties, consistency and appearance. 9.11.78 as 043922. (6pp367)

PASC- ★ D13 41300B/22 ★J5 4049-346
Paste used for film forming, solidifying or texture improving - contains finely ground Devil's tongue and carrageenan
PASCO INT KK 24.09.77-JA-113919
(18.04.79) A23l-01

A paste (I) comprises (i) powder (II) of devil's-tongue ground finely so that cell-wall iscrushed and (ii) carrageenan (III). (I) is prepd. by grinding (II) finely until cell-wall of (II) is crushed and mixing (II) with (III) .

A paste of high strength is prepd. by the addn. of small amount of (I). (I) can be used in food industries and other industries, as film-forming agent, texture-improving agent, solidifying agent, etc. 24.9.77. as 113919 (7pp42)

RIKV ★ D13 41301B/22 ★J5 4049-354
Ageing inhibitor for rice cake - prepd. by dissolving amylase and opt. glucoamylase in water and adding enzyme stabiliser
RIKEN VITAMIN OIL KK 27.09.77-JA-115935
(D16) (18.04.79) A23g-03 A23l-01/10

An ageing inhibitor (I) for mochi(rice cake) and dango (dumpling or doughboy) is prepd. by (1) mixing α-amylase (II) with β-amylase (III) in the ratio of (II)/(III)= 0.1-0.2 DUN/1000 AUN, or (II) with glucoamylase (IV) in the ration of (II)/(IV) = 1.0-12.5 DUN/1000 U, (2) dissolving these enzymes in water homogeneously and (3) adding one or more of enzyme-stabiliser agents, such as gelatin, casein, natural gum and others.

By the addition of (I) to the raw material of mochi and dango, their ageing can be prevented effectively for a long period at low temp.

The units mentioned above are as follows: DUN; the amount of (II) that lowers Blue Value of 10 ml of 1% starch solution by 1% in 1 min. at 40 C. AUN; the amount of (III) that forms reducing sugar corresp. to 1 mg of glucose in 10 min. at 40 C. U; the amount of (IV) that forms 10 mg of glucose in 10 min. at 40 C. 27.9.77. as 115935 (3pp42)

NIKO ★ D13 41303B/22 ★J5 4049-358
Removal of heavy metals e.g. cadmium from rice grain - by polishing or grinding the grain, adding sodium chloride and acid, and washing with water
NIPPON KOGEI KOGYO KK (NINO-) 26.09.77-JA-114678
(18.04.79) A23l-01/10

Removal of heavy metals (I), such as Cd, from rice grain (II), is effected by (1) polishing (II) or grinding (II) to fine grain or powder, (2) adding a soln. of NaCl to (II), (3) adding acid, such as acetic acid and (4) washing (II) with water after allowing (II) to stand for a while at a proper temp.

(I) can be easily and completely removed from (II) contaminated with (I). (I) obtd. can be used as feed of animals and food for human. When (II) is soaked in an aq. soln. contg. 5% of sodium chloride and 1% of acetic acid, $\sim$90% of Cd can be removed. 26.9.77. as 114678 (2pp42)

KIKK ★ D13 41305B/22 ★J5 4049-369
Prodn. of seasoning or drink - by extracting components from brown algae with aq. soln. contg. ethyl alcohol and acetic acid and/or sodium acetate
KIKKOMAN SHOYU KK 28.09.77-JA-115532
(18.04.79) A23f-03/02 A23l-01/22 A23l-02/38

Process comprises extracting components from brown lgae with an aq. soln. contg. ethyl alcohol and acetic cid and/or Na acetate.

Individual taste and flavour can be extracted. Prod. an be added to food as seasoning or dissolved in hot vater, to make a drink suitable to be drunk as hot water easoned with tang, which is popular brown algae are ang, Wakame seaweed, Hizikia fusiforme etc. 28. 9. 77. s 115532 (3pp42)

HAYA/ ★ D13 41325B/22 ★J5 4049-870

Prepn. of fertiliser and feedstuff of high protein content - by fermenting domestic animal excrement anaerobically, adding acetic acid inoculating microorganism and culturing

HAYASHIDA S 29.09.77-JA-116134

C04 (C03) (19.04.79) A23k-01 C05f-03

Method comprises fermenting the excrements of domestic animals anaerobically; adding acetic acid to the fermented product; inoculating microorganism belonging to the genus of Trichosporon to the mixture; and culturing the microorganism aerobically.

The excrement of domestic animals which produce bad smell, can be converted to fertiliser and feed-stuff. Addition of acetic acid is done for the neutralisation of ammonia produced by fermentation and accelerates the propagation of the microorganism, and is further used as carbon source.

Anaerobic fermentation is carried out pref. in a sealed vessel, at 30-60°C. for 20-60 hrs. Then acetic acid is added, and the addn. amt. of acetic acid is 0.1-6.0% per 1 kg. of solid material. Examples of microorganism are Trichlosporon cutaneum, Trichosporon capitatum and Trichosporon begelii. 29.9.77 as 116134 (3pp108)

HOHN ★ D13 41380B/22 ★J5 4050-008

Prepn. of oil for roasting meat on hot plate - by adding lecithin and sorbitan fatty acid ester to vegetable oil

HOHNEN OIL KK 28.09.77-JA-116361

E11 (D12 E17) (19.04.79) A23d-05

The process comprises adding 1-5 wt. % lecithin and 0.05-2 wt. % sorbitan fatty acid ester (both based on the vegetable liq. oil) to a vegetable liquid oil.

An oil for roasting meat on a hot plate which causes no sputtering is provided. Sorbitan fatty acid ester having a suitable hydrophilic property is dissolved in the liq. vegetable oil. Pref. sorbitan fatty acid ester is that having 4-10 HLB, such as ''Span 60 (RTM)''. When it is used in combination with lecithin, the interfacial tension between the liquid vegetable oil and water is reduced, and sputtering of the oil is completely prevented. 28. 9. 77. as 116361 (3pp126)

STUD D13 01425U/02 =J7 9010-539

Sepn of organic cpds - by treatment with gases under super-critical conditions

STUDIENGES KOHLE MBH 18.12.63-OE-010203 (16.04.63-OE-003085)

*E19 H02 J01 (08.05.79) *DT1493-190*

TAIT D13 20059V/11 =J7 9010-567

Extraction of pigment from cacao bean shells - with good heat and. light stability

TAITO KK 14.07.71-JA-052276

*E24 (08.05.79) *J48017-825 +C09b-61*

A pigment is extd. along with gum materials from cacao bean shells after cracking in neutral or slightly alkali water the extract adjusted to pH 1-2 with HC1, H_2SO_4 or H_3PO_4, and acetone added to eliminate gum materials, and readjusted to neutral or slightly alkali to produce a pigment.

The pigment is a polyflaconglucoside with mol. wt. of $>$1500, wt is used for food colouring, and is heat and light resistent and highly stable at pH 3-11. 14. 7. 71 as 052276 C09b-61/00 (8. 5. 79) TAITO CO LTD (8pp)(J48017825)

SANE D13 87577Y/49 =J7 9010-568

Preventing fading of paprika pigment - by adding rutin and quercetin

SAN EI CHEM IND KK 00.00.77-JA-033135 (28.03.75-JA-036548)

*B07 E24 (08.05.79) *J52128-924 C09b-61 +C09b-67*

The mixt. is added to the material to be coloured and stirred uniformly. The material to be coloured is powdered wheat flour, rice flour, etc., or e.g liq. medicines. The mixt. can be sprayed or coated onto the surface of solids such as boiled fish paste.

The amt. of rutin and quercetin is pref. $<$ 300 wt. % paprika pigment. When rutin or quercetin is used alone with a solvent such as water, the liq. only shows a ligh green or yellowish green colour at a concn. of 6000 pp and when its concn. is $<$250ppm. the liq. is almost colourless and transpatent. When it is used as $>$2000 w %, paprika pigment shows a slightly greenish red or red-organe colour. 28. 3. 75 as 033135/77 Div. ex. 36548/ C09b-61/00 67/00 (8. 5. 79) SANEI KAGAKU KOGYO (2pp) (J52128924)

NIOF D13 18795Y/11 =J7 9010-

Improving food quality - by addn. of collagen peptide having a m wt. of specified limits

NIPPON OILS & FATS KK 21.07.75-JA-089010

*(08.05.79) *J52012-937 A231-01 A231-03 34 +A21d-02 A23c-09/10 A23c-13 A23g-09*

To food, collagen peptide (CP) having a mol. wt. of 100 10000 is added. CP having a mol. wt. $\leqslant$ 1000 is unsuitabl since it has strong reactivity and taste, while CP of mo wt. $\geqslant$ 10000 is unsuitable since it has properties as prot The amt. of the CP is 0. 1-10 wt. % to food. In special use, it is 90%.

The CP may be applied to various foods. The elastic of food increases and its acceptance is enhanced. The softness of food is maintained for a long period and it ha the resistance to fungi. The CP is harmless to humans. 21. 7. 75 as 089010 A231-1/00, A21d 2/24, A33c-13/00, A23g-9/00, A231-1/16, 1/19, 1/20, 1/325, 3/34 (8. 5. 79) NIPPON OILS & FATS KK (3pp) (J52012397)

KAND ★ D13 41678B/22 ★J7 9010-

Preservation of egg - by coating shell with vinylidene chloride re emulsion

KANTO DENKA KOGYO 01.06.72-JA-054634

A97 (A14) (08.05.79) A23b-05/06

Shell of fresh egg is coated with vinylidene chloride resi emulsion having resin content of 50 wt. % and the prod. i dried at such a temp. that the protein of the egg is not degraded, so that a resin layer is formed on the surface of the shell. Good preservation can be attained. 1. 6. 72 a 054634 A23b-5/06 (8. 5. 79) KANTO DENKA KOGYO (9pp22) (J49011679)

NISH- D13 29060X/16 =J7 9010-

Chlorophyll contg drink from dried wild rice leaves - formed pressing and heating the leaves so that the nourishment in the preserved

NIPPON SHIZEN KAGAK 29.08.74-JA-098333

*(08.05.79) *J51026-255 A231-02/38 +A23f-03 02*

A nourishing drink is prepd. from the fibrous leaves of wild rice which are shredded into pieces 1-2 cm in leng and then steamed at 100°C to 20-60 seconds such that th green colour of the leaves is not affected. The steaming deactivates the oxidising enzyme contained in the living leaves and the leaves are softened. They are then rapidl air-cooled and twisted with mixing to level the moisture content, The leaves are treated at 30-40°C for 8-12 minutes and pressed to reduce the moisture content to Ca. 68 wt. %. The resulting prod. is a dark-green matte having a strong scent of grass-leaves. Finally, the pro is further dried and pressed to reduce the moisture content to 4-5 wt. %.

The method ensures the nourishment contained in the leaves is not destroyed. The prod. is enriched with chlorophyll, and is suitable for the prepn. of drinks e. g. green-tea. 29. 8. 74 as 098333 A231-3/02, A23f-2/38, (8. 5. 79) NIPPON SHIZEN KAGAK (4pp) (J51026255)

OKUR- ★ D13 41680B/22 ★J7 9010-6

Removing ppte. from liq. protein contg. turbid foodstuff - by addi tannin and protein, and also sodium polyacrylate

OKURA SHUZO KK 05.03.73-JA-026422

A97 C03 (A14) (08.05.79) A231-01/23 C12h-01/02

To turbid liq. foodstuff contg. chiefly protein are added protein and tannin to combine them witheach other, so that the protein in the foodstuff is coagulated. Sodium polyacrylate is also added to accerlerate coagulation of

ein. 5. 3. 73 as 026422 C12h-1/02, A231-1/238 (8. 5. 79)
JRA SHUZO KK (3pp22) (J49110895)

D13 27160Y/16 =NL-160-152
-calorie flour based on modified polydextrose - contg. protein
erial, cellulose and natural flour
PFIZER INC 23.07.76-US-707983 (20.10.75-US-624026)
*A97 (A11 D11) (15.05.79) *BE-847-315 A21d-10/02*
/ calorie substitute for flour based on a modified poly-
cose is prepd. by mixing a strongly branched polygluc-
contg. 0.5-5 mol.% polycarboxylic acid-ester gps.
. citric acid ester and 5-20 mol.% polyol e.g. sorbitol,
n an aq. dispersion of an albuminous material, e.g.
ium caseinate.
A cellulose deriv. e.g. rice flour, α-cellulose, micro-
stalline cellulose is added and mixed to a homogeneous
te. The components are mixed in an amt. of 20-75 wt.
nodified polyglucose, 2-20 wt.% albumin, 10-40 wt.%
lulose deriv. and 5-20 wt.% flour.
The pasta product is dried and ground to a powder.
0. 76 as 011015 (7pp549).

RG- D13 35667S/21 =NL-160-153
urable margarine
MARGARINBOLAGET AB (MAR -) 14.11.69-LU-059821
*(D23) (15.05.79) *DT2055-036 A23d-03*
urable margarine with improved stability against phase-
on. is prepd. by emulsifying an aq. phase in a fat phase,
fat phase contg. oil which is liquid at room temp. to-
her with a small quantity of a higher m.pt. hydrogenat-
fat. The emulsion is coded and packaged. The fluid
rgarine contains 0.5-20 vol.% gas bubbles of which >
% have a size of 1-25μ.
The gas bubbles pref. contain N_2 and the margarine
ef. contains 1-10 vol.% of these bubbles. 11. 11. 70 as
5469 (6pp549).

NIL D13 09390T/06 =NL-160-154
argarine fat-contg at least three per cent trans acid - and palmitic
id as main satd fatty acid
UNILEVER NV 25.07.70-GB-035874
*(D23) (15.05.79) *BE-770-452 A23d-03 +C11c-03/10*
argarine fat, contg. a triglycide mixt. obtd. by re-
terifying a fat contg. ⩾20% palmitic acid ester with a
cond fat, is prepd. by hydrogenating the re-esterified
t to give it a trans-acid content of ⩾3%.
The second fat used is non-hydrogenated vegetable oil
hich is liquid at room temp. The re-esterified fat is pref.
epd. from a mixt. contg. 25-65% palm oil.
The margarine fat prepd. is useful in baking and bread
aking. 23. 7. 71 as 010244 (7pp549).

STR D13 32573F/00 =NL-160-164
bstd satd and mono- and poly-unsatd alkylglyceryl
ASTRA NUTRITION AB 16.12.66-SW-017305
*B05 E17 (15.05.79) *NL6717-165 A61k-31/07 +C07c-43/04*
C07c-69
Glycidyl ethers (I) are antibiotics with cytistatic activity
ainst tumour cells without disturbing hemopoesis.
$-OCH_2CHR_3-CHR_4R_5$
$-OR_2$
$-OR_1$ (I)
In the formula, R_1 and R_2 are H or ⩾24C aliphatic acyl; R_3 and R_4 are ⩾7C alkoxy, or R_4 is H and R_3 alkoxy; and R_5 is opt. mono- or
ly-unsatd. 4-21C alkyl. Mixts. of 2-methoxy substd.
yceryl ethers and unsubstd. glyceryl ethers contg. <5
t.% of 2-methoxy substd. cpds. are specifically excluded.
Pref. (I) are where R_1 and R_2 are H, R_3 is methoxy, R_4
H and R_5 is tridecyl, 1-tridecenyl, pentadecyl or 1-
entadecenyl. 15. 12. 67 as 017165 (10pp913).

OLB- D13 36191U/26 =NL-160-214
licing and packing appts - for packing in transparent jars with cut
dges facing outwards
SOLBERN CORP (SOL -) 26.10.70-US-083868
*+Q31 (15.05.79) *CA-927-797 B65b-25/04 +B65b-19/34*
device is described into which long objects are fed, cut
long their axes into smaller pieces, the pieces then being
ed into holders. The device comprises >1 vertical feed
hute, knives with their cutting edges uppermost beneath
he chute, a feeder above the chute for driving the objects,
otating chutes which distribute the pieces around the outer wall of the holder and guides which protrude into the empty holder and ensure that the pieces adopt the correct attitude permitting the following pieces to be correctly placed. The guide device is indexed in synchronisation with the up and down motion of the feeder device. 13. 9. 71 as 012543 (16pp1370).

TENC D13 03424R/03 =NL-160-241
Compacted sodium benzoate prods with easy solubility - props
TENNECO CHEMICALS 09.07.68-US-743280
*B05 C01 E12 (15.05.79) *DT1933-871 +C07c-63/08*

Sodium benzoate prod. used for food preservation, pharmactical prepns., toiletries and foodstuff packaging, is produced with a relatively high density and good solubility by compressing starting material of water-content 0.1-2.0 wt.% at 56-70kg/cm² to form a foil, which is then powdered or flaked. Pref. starting material has a water-content 0.2-0.5 wt.%.

Prodn. is simple and of low cost, giving a denser prod. of lower transportation and storage cost. 9. 7. 69 as 010525 (4pp913).

NEST D13 44677W/27 =NL-160-270
Milk-coagulating enzyme for use by the milk industry - prepd by treating poultry peptic tissue with acidifying salt soln
SOC PROD NESTLE SA 19.12.73-CH-017760
*(D16) (15.05.79) *DT2423-097 C07g-07/02*

Milk coagulating enzyme is prepd. by extracting finely ground stomachs of birds with an acidified aq. soln.

The aq. soln. is used at pH <4 in which sufficient salt is dissolved so that the ionic activity of 0.085-1.2 is reached, acid not included, and the extn. carried on for 15-20 mins. at 0-40°C. Solids are sepd., opt. after adjusting the ionic activity of the soln. to 1.0-1.7 by adding more acid; the pH is controlled at <4 by this addn. of acid.

The enzyme is useful in the dairy industry. 5. 12. 74 as 015871 (6pp549).

NEST D13 30920W/19 =NL-160-321
Anti-oxidants for food preservation - extd from organic materials pref. plants with basic aqueous esp. buffer solns
SOC PROD NESTLE SA 26.10.73-CH-015150
*(15.05.79) *DT2445-354 B01d-11/02 C09k-15/34*

Antioxidants are extracted from Cabicetes and umbelliferae by treating plants or parts of the plant of these families with a solvent, sepg. the insoluble fraction from the soluble fraction and recovering the soluble fraction contg. the antioxidant. The solvent used is a buffered aq. soln. of pH 8.5-10.

The soluble fraction is pref. acidified, and the pptd. antioxidant filtered then dried. The antioxidant may be used for the protection of foodstuffs against oxidn. 25. 10. 74 as 014000 (6pp549).

DUCH/ ★ D13 B/22 ★ OE 7804-659
Pig food
DUCHSTEIN S 27.06.78-OE-004659
C03 (15.05.79) A23k-01

SNAM D13 06154Y/04 =SU-616-995
Mycotoxins extraction from feed grade vegetable flour - with a polar organic solvent contg. an aq. electrolyte under mild conditions (BE170177)
SNAMPROGETTI SPA 15.07.75-IT-025422
*C03 (20.06.78) *DT2631-695 A21d-02/02*

Mycotoxins are removed from vegetable flour by treating it with an organic solvent contg. >1 polar gp. and which is mixed with an aqs. soln. of an electrolyte.

The process is used to purify food-/feed-stuffs. The electrolyte increases the solubility of the mycotoxins (e.g aflatoxins) in the aqs. alcoholic soln. The extraction process is effected at within 4°C of the temp. at which denaturation of the protein begins, the ratio of dissolved substance to solvent being 1:2-5. Exhaustive percolation at pH 2-6 may be used. The use of n-butanol and HCl as organic solvent and electrolyte resp. is exemplified. Cannela, M., Sodini, G. Bul. 27/25. 7. 78. 15. 7. 76. as 382513 (1pp)

STRE- D13 01415V/01 =SU -617-002
Carbonated water prodn appts - instantaneously in two stages
STRENGER ASSOC INC (STR -) 20.07.72-US-273509
*+Q39 (20.06.78) *BE-801-399 C02d-01/04*

Appts. consists of (a) a 1st stage connecting the CO_2 inlet nd water inlet in a way that causes a circulation of water and a partial absorption of CO_2, in which a number of passages for circulation of water and a number of passages for circulation of CO_2 are joined, at certain angles, to the water passages, and (b) a 2nd stage between the 1st stage and the water outlet to create a turbulence and create an increased surface area of water exposed to CO_2.
Stranger, M.S. Bul. 27/25. 7. 78. 18. 7. 73. as 950958 (3pp)

GROD= ★ D13 41819B/22 ★SU -617-036
Determn. of scum formation in evaporators - uses parameter testing technique and comparison with clean evaporator, used in food and microbiology
GRODNO PROMAVTOMATI 01.02.77-SU-447415
J01 R26 (D16) (13.07.78) B01d-01 C23f-15 G05d-27

Testing for the degree of scum formation in evaporators is based on measuring the productivity of evaporator, evaporated soln. temp. and steam in the heating chamber.

In order to increase the accuracy of measurements, the delay time between the temps. of the soln. and the steam in the heating chamber is measured and this value is compared with clean evaporator at similar productivity From the results, the degree of scum formation can be deduced.
Pismennyi, V.V., Kozlova, M.A., Onyshchuk, B.S. Bul. 28/30. 7. 78. 1. 2. 77. as 447415 (2pp848)

BUTT= ★ D13 42063B/22 ★SU -617-473
Geotrichum candidum link fungal strain - is used for prodn. of lipase in a culture liq., used for cheese making
BUTTER CHEESE IND (ASMI=) 14.12.76-SU-431504
(D16) (19.07.78) A23c-19/02 C12k-01/02

The innovation concerns cheese-making using a strain of a fungal organism to obtain a liq. culture contg. lipase. A strain of Geotrichum candidum Link BKM F-2017 microscopic fungus, isolated from the Moscow domestic water sewage, was found to be lipase producing member. Lipase is produced by growing the indicated fungal strain in flasks contg. a liq. nutrient medium of the compsn. (%) soybean flour 2.0, urea 0.2, saccharose 0.2, $MgSO_4$ 0.1, $CaCO_3$ 0.5, K_2HPO_4 0.1, $KH_2PO_4.3H_2O$ 0.4, olive oil 0.5. The cultivation, using flask-shake technique (170 revs./min.) is carried out for 40-45hrs. at 26-28°C. The optimum pH of the medium for the biosynthesis of the exolipase is 7.0.
Lobyreva, L.B., Sviridenko, Yu.Ya., Marchenkova, A.I et al. Bul. 28/30. 7. 78. 14.12. 76. as 431504 (2pp48)

INFL D13 21477A/11 =US 4154-696
Flavour-enhancing 4-butyl-3,4,5-tri:methyl-2,5 cyclo-hexa:dienone(s) - e.g. useful as flavour and aroma source for tobacco, foodstuffs, cosmetics and medicinals
INT FLAVORS & FRAGR INC 03.03.77-US-774058 (13.12.77-US-860123)
*B05 E15 +P15 (D18 D21 D23) (15.05.79) *US4076-854 +C11d-03/60 C11d-09/44*

A perfumed detergent compsn. is produced by intimately mixing with a solid or liq. detergent base 1-3% of a cyclohexadiene deriv. chosen from2,4,4,6-tetramethylcyclohexa-2,5-diene-1-one and 4-butyl-3,4,5-trimethyl-2,5-cyclohexadiene-1-one.

The Parent Patent claimed the enhancement or agumentation of the organoleptic props. of tobacco, foodstuffs, cosmetics, medicinals etc. using 4-butyl-3,4,5-trinaphthy-2,5-cyclohexadienone(s). 21. 6. 78 as 917772 Div ex 4130508; 4076854 (+13. 12. 77-US-860123) (20pp910)

STAD ★ D13 42306B/22 ★US 4154-726
Dissolution of single-cell microorganisms - by treatment with dil periodate ions
STANDARD OIL CO (IND) 20.03.78-US-888234
(D16) (15.05.79) A23j-01/18

Method of dissolving single-cell microorganisms is as follows: (a) cells are treated with a dilute source of periodate ions (I); (b) the treated cells are dissolved in a dil. basic soln.

Mild method allows the recovery of protein material from single-cell microorganisms without using mechani breakage of the cell walls. The prepd. soln. may be trea further to afford whippable, coagulable, or soluble prot prods. useful in the food industry, etc. 20.3.78 as 888 (4pp478)

SHIO D13 00113X/01 =US 4154-
Aroyl-aryl-substd. dipeptides - with anxiolytic, sedati anticonvulsant, hypnotic and muscle-relaxant activity
SHIONOGI KK 06.08.74-JA-090566 (06.08.74-JA-090565)
*B05 C03 E14 (B02 B03) (15.05.79) *BE-832-190 C07c-103/52*

Prepn. of dipeptide derivs. (I) of formula $A-CO-B-N-N(-R)COCH_2NH-COCH(-R_1)NR_2R_3$ comprises first reacti a glycinamide of formula $A-CO-B-N(-R)COCH_2NH_2$ in th form of a salt with a haloacetyl halide $XCH(-R_1)COX_1$ to yield the haloacetyl glycinamide of formula $A-CO-B-N(-R)COCH_2NHCOCHR_1X$. This is then reacted with amr nia, potassium phthalimide or amine of formula R_2NHR_3 potassium phthalimide is used the prod. is subjected to hydrazinolysis.

In the formulae, R is H, (cyano)methyl, (cyano)ethyl, isopropyl, cyanopropyl, (cyano)butyl, pentyl, di(m)ethyl aminoethyl or diethylaminopropyl. R_1 is H, methyl, ethy isopropyl,, butyl, pentyl, benzyl, phenethyl or phenylpropyl, R_2 is glycyl, glycyl-glycyl or one of the gps. lis for R_1. R_3 is H, methyl, ethyl, butyl, isopropyl or penty Opt. $-NR_2R_3$ forms piperidino, morpholino, methylpiperazino or phenylpiperazino. A is a pyridine, benzene, fluo -benzene or chlorobenzene ring. B is a chlorobenzene, ni -benzene or ethylbenzene ring. X and X_1 are halogen.

Cpds. (I) are anxiolytics, sedatives, anticonvulsants, hynotics and muscle relaxants. 6. 1. 78 as 867605 (+1. 8. 7 7. 3. 77-US-601134; 775646) (11pp927)

DUPO D13 45552Y/26 =US 4154-7
Separating comminuted plant material contg. protein into fraction by mixing withsolvent and separating fraction contg. endosperm
DU PONT OF CANADA 16.12.75-GB-051498
*+P41 (D23) (15.05.79) *DT2657-034 A23j-01/12*

Proteinaceous material selected from wheat, rye, barle triticale, peas, beans or buckwheat is sepd. into 2 frac tions, by mixing comminuted proteinaceous material fre of hulls with an organic solvent of pentane, hexane, hepta cyclohexane and/or 1-4C alcohols.

The admixture is sepd. into ≥ 2 fractions one fraction has the outer coat of material as solid component; the second fraction has the endosperm as solid. Endosperm sepd. is ≥ 5% comminuted material. Sepn. is by sieving through a sieve capable of retaining all the outer coat on the mesh whilst passing solvent contg. endosperm throug and admixing the mixt. under controlled conditions adapt to cause non-uniform distribution of material in the solve so effecting sepn. into fractions.

A variety of prods. are obtd. including protein-enrich and protein-deficient endosperm fractions, which have a variety of uses in the food industry. 6. 12. 76 as 747733 (8pp931)

AARJ- D13 08184B/05 #US 4154-7
Rearranging 1,2-di:glyceride to 1,3-di:glyceride - by heating in sol form with alkali metal catalyst
AARJIS POEFAB A/S (AARH) 03.06.76-DK-002457 (08.07.77-U 814083)
*E17 (15.05.79) *DT2730-872 C11c-03/14 +C09f-07/08*

Solid state catalytic rearrangment of 1,2-diglycerides (I to 1,3-diglycerides (II) (until ratio (I):(II) is 1:4) is effect at raised temps. in the presence of ≮ 0.01 wt. % of a basi catalyst.

Catalyst is: (a) an alkali metal soap; or (b) an alkali metal, or alkali metal alcoholate, hydroxide, or carbona or mixt. in an amt. that reacts completely with the reac tion mixt. to produce soap.

Food grade (I) are prepd. by known methods. After rearrangement (II) are inters. for triglycerides, e.g. those of the same type as cocoa butter. 8. 7. 77 as 8140 (3pp478)

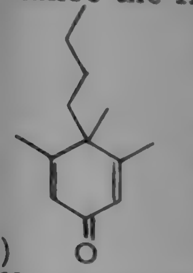
IFL D13 21477A/11 =US 4154-763

avour-enhancing 4-butyl-3,4,5-tri:methyl-2,5 cyclo-hexa: enone(s) - e.g. useful as flavour and aroma source for tobacco, odstuffs, cosmetics and medicinals

INT FLAVORS & FRAGR INC 03.03.77-US-774058 (13.12.77-US-860121)

*B05 E15 +P15 (D18 D21 D23) (15.05.79) *US4076-854 +C07c-49/48*

ew cyclohexadiene deriv. has structure (I). It is used to nhance the flavour or aroma of foodstuffs, chewing gum, toothpaste, and medicinal prods. and also in tobacco and perfume compsns.



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Prepn. comprises reacting 6-butyl-1,5,6-trimethylcyclohexa-1,3-diene with O_2 in the presence of light, a UV sensitiser and a basic catalyst; or reacting 4-butyl-4-hydroxy-3,5,5-trimethyl-2-cyclohexen-1-one with dil aq. mineral acid. In either case, (I) is distilled ff. 13.12.77 as 860121 Div ex 4076854 (20pp945)

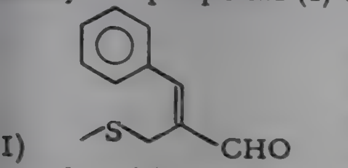
NFL D13 01929A/01 =US 4154-766

ugmenting or enhancing aroma or taste of foodstuff - by adding ethyl-(methylthio)methyl furan acrolein cpd.

INT FLAVORS & FRAGR INC 22.12.76-US-753462 (24.08.77-US-827147)

*E13 (15.05.79) *US4064-279 +C07c-47/52*

Pure, synthetically produced 2-((methylthio)methyl)-3-phenyl-2-propenal (I) is new.



I)

The cpd. is added to foodstuffs to augment flavour and aroma and is esp. effective in vegetable (e.g. potato or cabbage) or chicken flavoured material. It is prepd. from methional and benzaldehyde, reacted in the presence of base. 24.8.77 as 827147 Div ex 4064279 (15pp945)

CLIM- ★ D13 42325B/22 ★US 4154-800

Phosphate(s) and phosphoric acid prodn. - by contacting phosphate ore with sulphur tri:oxide or sulphuric acid in a liq.-anhydrous dispersion media

CLIMAX CHEM CO 01.02.78-US-874039 (07.01.76-US-647189)

C04 E36 (C03) (15.05.79) C01f-11/46

Prodn. of water soluble phosphates and phosphoric acid comprises, intimately contacting particulated phosphate ore at near ambient temp. and pressure, with liq. SO_3, H_2SO_4 or their mixt. in sufficient amt. dispersion media comprising SO_2, SO_3 or their mixts., to maintain a slurry-like consistency for a time sufficient to form separate, water soluble phosphorus cpds. and $CaSO_4$.

It is an improved process for producing phosphates from phosphate rock or bone phosphate which reduces the severe corrosion problems, it involves single-stage contact reactions without recycles, permits the use of substantial excesses of easily recoverable dispersion media and can be used for producing fertiliser and animal feeds at low cost. 1.2.78 as 874039 (5pp957)

EPSC- ★ D13 42331B/22 ★US 4154-814

Therapeutic chewing gum compsn. - contg. insoluble gum base vehicle and sodium and potassium chloride(s)

EPS CHEWING GUM 13.02.78-US-876889

B06 (15.05.79) A61k-09/68

Therapeutic chewing gum compsn. comprises an insoluble gum base vehicle with 2-6% NaCl and 0.1-0.5% KCl (in ratio ≥3:1 esp. 10:1) bound to the vehicle.

The compsn. is for oral ingestion to maintain the mineral balance of human physiological fluids, esp. during strenuous physical activity. It does not have an objectionable salty taste. 13.2.78 as 876889 (4pp1248)

STAD ★ D13 42342B/22 ★US 4154-856

Stretching coagulable extrudate in coagulating bath - whose contents are forced to vortex to stretch extruded fibres

STANDARD OIL CO (IND) 20.03.78-US-890579

F01 (15.05.79) A23j-03

A coagulable extrudate is injected into a vortexing coagulating bath so that it is generally stretched along the spiral path of the vortex. The stretched extrudate is collected near the apex of the vortex. Pref. the extrudate is an extruded dope comprising single cell protein organisms such as yeast.

The vortex may be produced by agitation within the bat or by draining the bath out through an aperture at the bottom of the bath container. Alternatively the stretching may be produced by injecting the extrudate into a bath contained in an annular space formed between a stationary cylinder and a concentric rotating conical segment. The extrudate is subjected to increasing velocity and is gradually stretched as it spirals towards the apex of the conical segment.

The method is used to prepare a fibrous prod. by extru-ion of a dope into a coagulating bath. The fibres are stretched without the use of rollers or gaseous moving agents. 20.3.78 as 890579 (8pp295)

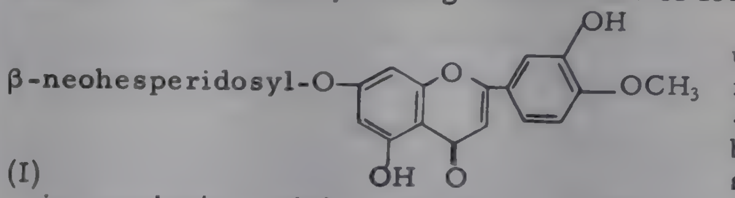
USDA ★ D13 42344B/22 ★US 4154-862

Reduction of bitterness and/or of after-taste - by addn. of neodiosmin to food, beverage or oral pharmaceutical prepn.

US SEC OF AGRICULTURE 13.01.77-US-758987 (18.06.75-US-587922)

E13 (15.05.79) A23l-01/22

Bitterness in orally-injested materials contg. bitter substances is reduced by adding neodiosmin of formula (I).



(I)

(I) may be used to reduce bitterness caused by cpds. such as limonia, naringin, quinine, nicotine, xanthines, urea, magnesium sulphate, sodium benzoate, neohesperidin and saccharin. (I) can be used to suppress off-after-taste sensations such as those accompanying artificial sweeteners. 13.1.77 as 758987 (4pp954)

NEST D13 39972X/22 =US 4154-864

Instantly soluble granules for drinks esp. coffee and tea - vacuum expanded from extruded paste of vegetable extract

SOC PROD NESTLE SA 17.12.74-FR-041602

*(15.05.79) *BE-835-557 A23g-03*

Water-soluble grain is claimed, the grain contg. a dehydrated extract of vegetable material of coffee, chicory, tea or herbal decoction. Grain has a porous cellular, internal structure encompassed by a smooth surface skin, an apparent density of 50-300g/l, a moisture content of ≤6% and a resistance to crushing of 2.5-7.5 Newtons.

Pref. grain has apparent density of 80-150g/l, if tea, or 100-200 g/l, if coffee or chicory. Grain pref. has a dia. of ≥1mm, esp. 2.5-15mm. Internal porous structure is composed of cells of dia. 0.01-1mm.

Grains dissolve instantaneously in water. A vegetable extract can be prepd. by extruding in powder or paste form into a chamber where a subatmospheric pressure prevails, and cutting into fragments. 30.3.78 as 891560 (+28.11.75-US-635590) (7pp931)

LIFE- ★ D13 42347B/22 ★US 4154-867

Sugarless candy with improved flavour and sweetness - contg. hydrogenated starch hydrolysate, and malic acid flavour enhancer

LIFE SAVERS INC 12.12.77-US-859784

(15.05.79) A23g-03

A liq. smoke product contg. no detectable 3,4-benzopyrene is prepd. by (a) forming a mixt. of 3-20 pts. wt. wood tar with 1 pt. wt. propylene glycol; (b) heating the material to 220°F, then to 280°F, with agitation; (c) reducing the pressure below $^2/_3$ atmos., and distilling off propylene glycol and those components of wood tar which codistill at or below the b.pt. of propylene glycol; (d) contacting the distillate with pulverised active C; (e) filtering off the carbon

The process uses a waste material from certain processes for prodn. of aq. smokes, and the product is much stronger than aq. smoke. 24.8.76 as 717369 (5pp955)

STAN- ★ D13 42346B/22 ★US 4154-866

Liquid smoke prodn. from wood tar - by co:distillation with propylene glycol and carbon treatment of distillate

STANGE CO 24.08.76-US-717369

(15.05.79) A23l-01/23

Sugarless candy consists of 50-98 wt.% of a hydrogenated starch hydrolysate (I) and (II), and opt. a sugar

Compsns. contain 10-99% pref. 50-98% (I), 0.2-5% pref. 0.5-2.5% (II), and 1-90% pref. 1-25% (III), and also 0.01-10 pref. 0.2-0.25% fruit flavours. (I) are suitably hydrogenated glucose syrups (72-80% solids content) in which the solids consist of 4-20% sorbitol, 20-65% malitol, 15-45% tri- to hepta-hydrogenated saccharides, and 10-35% hydrogenated saccharides higher than hepta. (III) may be xylitol, mannitol, maltitol, etc. pref. sorbitol.

Use of (II) as a flavour enhancer affords a sugar-free hard candy which is free of artificial sweeteners but has improved flavour and sweetness. 12.12.77 as 859784 (3pp)

See Also

D15 J5 4050492
D16 FR 2401130
D16 J5 4049395
D16 SU 616276
D23 BE 873680
D23 US 4154693
D16 BE 873695
D16 GB 1546691
D16 J7 9010635
D17 DS 2130994
D23 GB 2008115
D23 US 4154769
D16 DS 27578
D16 GB 15469
D16 SU 21294
D18 US 41548
D23 US 41547

D14: FOODSTUFF MACHINERY

VGIM- D14 09497X/06 =DS 2462-623
Grading freely flowing materials by particle weight - vibratory air cushion chute easily emptied for batch changing
PROBAT VON GIMBORN 18.07.74-DT-434665 (18.07.74-DT-462623)
*J01 P43 (23.05.79) *DT2434-665 B07b-01/30*

A sepn. device by specific gravity for bulk material, such as coffee, peanuts, plastic granules, etc. is an inclined pneumatic fluidised bed trough through which an air stream is directed. Heavy particles are discharged at the top end light particles pass to a cyclone, and middlings reach the bottom end. A vibratory screen trough is hinged to that end, with a curved guide plate on top, for the graded sorting of middlings.

A magnetic separator can be added to segregate ferrous matter. 18.7.74 as 462623 Div.ex 2434665 (4pp39)

MORI/ ★ D14 41009B/22 ★FR 2400-840
Horizontal cylindrical rotary drum for soaking potatoes etc. - in treatment liq. of controlled concn. for controlled duration
MORILLON T 30.07.76-FR-024009
(27.04.79) A01n-03 A23b-07

The machine treats vegetables, fruit etc. by soaking them in a bath of liq. through which they are continuously conveyed. The prod. is fed into a horizontal, cylindrical, rotary drum which has a perforated shell. The lower part of the shell is immersed in liq. in a treatment bath. Inside the drum, a coaxial, helical scroll conveys the prod. through the liq. as the drum rotates. At the discharge end of the drum, radial paddles lift and drain prod. which is delivered for packing. The depth to which the drum is immersed in the liq. is approximately equal to the effective radial width of the conveying scroll.

Below the drum, a make-up tank is pref. installed to contain concentrated treatment liq. which is added continuously to the bath to keep up liq. strength in operation. The make-up liq. is transferred by a bucket elevator driven from the rotating drum.

Drive to the rotary drum is pref. via belt loops in which the ends of the drum are suspended.

The treatment is usually to protect the prod. from disease, rotting, pests, etc. during storage prior to use as seed or food. Fully mechanised soaking is of controlled duration, depth and concn. excellent penetration of soiled vegetables, and no damage to prod. are other advantages. 30.7.76. as 024009 (7pp448)

UNTE- ★ D14 41057B/22 ★FR 2401-393
Hot air conveyor dryer for fruit, vegetables etc. - receives larger and smaller prod. via separate conveyors for equal drying
UNION TECHN AQUITAI 24.08.77-FR-026274
Q76 (27.04.79) A23n-09 F26b-03/04 F26b-15/18

A hot air drying chamber for fruit, vegetables etc. The dryver is of the type in which the prod. is carried through the chamber by a series of horizontal conveyor bands arranged one above another for gravity transfer. Two hoppers respectively feed a larger and a smaller size range of prod. onto two different conveyor bands, pref. ti top two of the series.

The top two bands fed by independent hoppers pref. convey in the same direction but at different speeds. They both deliver onto the next band of the series, this third band conveying in the reverse direction to the first two.

The series of conveyors is pref. constructed as a packaged unit which can be wheeled in and out of the cha
mber. The chamber is pref. fitted with hot air fans blov
ing longitudinally over the upper bands and cold air fans
blowing transversely over remaining, lower bands.

Homogeneous drying of both small and large prod. is
provided. The larger size range of prod. is conveyed more slowly on its first band than is the smaller size range, thus giving a longer, pre-drying period to the la
ger prod. before mixing on the third band with the small
prod. 24.8.77. as 026274 (10pp448)

ATLA- D14 04914X/03 =NL-160-
Ejector unit for use in apple orienting and transporting system - removal of badly oriented fruit
ATLAS PACIFIC ENG C 04.09.75-NL-010443 (02.01.69-US-8144
*(15.05.79) *NL7510-443 A23n-04/14*

Fruit with two dents such as apples are orientated and transported by means of a conveyor comprising a numbe
of bowl shaped holders, each with an opening in the floor
which rotate about a vertical axis. During a part of the rotational trajectory of the holders, the fruit is brought into contact with a tumble wheel which turns the fruit un
spring loaded fingers working with the wheel locate and grip the apple via the two dents.

At the end of the travel the apples move against a sprung lever which rejects any of them which are not corr
ly orientated. The sprung lever is a leaf spring whose tension can be adjusted without altering the distance of th
lever from the trajectory of the axes of the fruit. 4.9.75
as 010443 (4pp1370).

BLAW D14 49539U/35 =NL-160-3
**Foodstuffs washing installation - esp sliced potatoes for crisps wi
starch separation**
BLAW-KNOX FOOD & CH 09.02.72-US-224698
*(15.05.79) *NL7301-795 A23n-13 C13l-01/06*

Solids are sepd. from a suspension of solids in liq. in which the solids content is ⩾50% by means of a settleme
tank. The settlement tank is an open topped vessel consisting of a removable open ended bag of flexible materi

Arrangement allows the solids to be easily removed after sepn. 8.2.73 as 001795 (2pp1370).

PAYE/ ★ D14 B/22 ★OE 7709-0
Feedstuff mixer
PAYER D 19.12.77-OE-009076
(15.05.79) A23k-01/14

STEQ ★ D14 B/22 ★OE 7802-6
Cutter for conveyor channel moving stalked material
STEYR-DAIMLER-PUCH AG 17.04.78-OE-002649
(15.05.79) A01n-90/04

FMCC ★ D14 42172B/22 ★US 4154-1
**Curved cup fruit juice extractor - with cups having interdigitati
fingers and being movable relative to each other along an arcua
path (BR 12.12.78)**
FMC CORP 23.05.77-US-799419
+P71 (15.05.79) A23n-01 A23n-04/18 B30b-09/02

The cup is composed of two matching sections of curved rdigitating fingers which move together arcuately to lose and squeeze the whole fruit, during which the move ent and release of the cup sections is controlled by a and a torsional spring, and a rapid fruit feeder sys- works on a principle of throwing the fruit into the ved cup as the cup opens. 23. 5. 77 as 799419 (10pp)

T/ ★ D14 42343B/22 ★US 4154-861

king food in columns of hot gas - directed perpendicularly to the d surface at controlled rate, giving local surface heating

SMITH D P 19.05.76-US-687982

(15.05.79) A23l-01/ A23l-03/32*

od is cooked by forming columns of hot gas and directing se perpendicular to the surface of the food. The jets pinge on discrete points on the food surface to remove undary air and moisture to provide local heating. The d is moved slowly w. r. t. the jets which thus sweep over food to heat the entire surface.

The velocity of the hot gas is controlled such that it vapourises moisture on the surface of the food faster than the moisture comes to the surface of the food from it interior.

The method heats the surface of food e. g. pizzas or precooked chicken portions. It may be used in conjunction with a microwave heater which cooks the interior of the prod. The discrete jets raise the temp. of individual points on the surface to the value at which the surface browns. 19. 5. 76 as 687982 (16pp295)

D15 : WATER TREATMENT

HL ★ D15 40664B/22 ★BE -873-750

ckening activated sludge - by adding cationic polyelectrolytes d draining through an endless chain belt

SIMON HARTLEY LTD 25.05.78-GB-022250

(16.05.79) B01d C02c

ocess intended to attain a concn. by wt. of 5% of solid atter by the addn. of a cationic polyelectrolyte. Flocculation develops and the slude is deposited on a surface rough which the liq. can flow freely. The sludge is then iminated from this surface.

The sludge to be thickened is introduced into the appts. the pipe where it meets the polyelectrolyte from pipe. he treated sludge passes, for a suitable interval of time to the holding tank where the flocculation develops. It en leaves by the overflow, down the plane to be deposited the moving belt. As the latter passes between the rollrs the liq. flows through the belt onto the guide plates. eliminates traces of residual sludge from the belt when e latter passes between rollers and collects on the guide ate to be directed into the gutter and overflow to the rain. Some of the liq. can be passed through the valve nd the pipe into the hopper so that some of it may be retroduced into the thickened sludge if the latter is too ick for a subsequent process.

The addn. of the polyelectrolyte allows the sludge to ow freely and increases the amt. of solids to about 5% by t. The appts. is relatively cheap and simple. 26. 1. 79 s 873750 (8pp519)

EI ★ D15 40684B/22 ★BE -873-833

utomatic determn. of organic substances in water - by titrating gainst acid potassium di:chromate, and back titrating with ferrous ns

SIEMENS SA 01.02.78-DT-804267

E19 J04 R16 (16.05.79) G01n

he determn. of the amt. of solid organic substances dissolved in water, and organic substances non-miscible with ater, comprises mixing H_2SO_4 and Ag_2SO_4 with water, nd reacting the mixt. with a soln. of $K_2Cr_2O_7$. The soln. then heated to b. pt. and maintained at this temp. until he oxygen liberated from the soln., by redn. of Cr^{6+} to r^{3+}, oxidises the organic substances. The amt. of Cr^{6+} emaining in the soln. is then determined by titration with soln. of Fe^{2+}. The consumption of Fe^{2+} measured is hen used as an indirect measure of the amt. of organic ubstances in the water.

Specifically, the amt. of Fe^{2+} used is obtd. by coulomeric redn. of a soln. of Fe^{3+} during the prepn. and/or the eaction of the sample of residual water. The process an be automated. 31. 1. 79 as 873833 (16pp396)

ORRJ- D15 15568R/09 =DS 1917-806

Process and plant for separating oil from a mixture - of oil and water

INGENJOR ORRJE & CO 08.04.68-SW-004722

*H01 J01 +Q42 (23.05.79) *FR2005-793 +C02c-01/38 C10g-33 E03f-05/16*

A device to separate oil from an oil/water mixt. consists of an elongated tank which has a bottom layer of gravel, a central layer of sand and a top layer of gravel. A partition has a slot at the bottom so that the bottom gravel layer communicates with a water collection section. The opposite side wall has at the level of the top gravel layer a slotted wall through which oil can enter. The oil outflow is at a higher level than the water outflow.

This collects the oil, free from contaminants, as a liquid phase. 8. 4. 69 as 917806 (4pp39)

WEBE/ D15 00374X/01 =DS 2428-442

Transporting and dewatering solids raked up from sewage gulleys - to form disintegrated partially dried matter providing economic source of heat

WEBER E 12.06.74-DT-428442 (00.00.74-DT-405406)

*(23.05.79) *DT2428-442 C02c-01/22*

The Parent Patent described an endless belt for the reception of floating matter which has been collected by bar screens in clarification plant. Several rolls with back-up rolls are distributed over the belt to dewater the material. At the discharge end of the belt, a disintegrator roll with a shaft parallel to the axis of the belt return drum is equipped with blades and beaters to reduce the larger material.

The arrangement makes the discharge a suitable feed for incinerators with complete combustion. 12. 6. 74 as 428442 Add to 2405406 (7pp39)

CHSY- D15 24979X/14 #DS 2458-208

Asymmetric reverse osmosis membrane prodn - by casting dilute soln of cellulose ester and pore former

CHEMICAL SYSTEMS 20.03.74-GB-012261 (09.12.74-DT-458208)

*A88 J01 (A11 A32) (23.05.79) *GB1430-323 C08l-01/10*

Prepn. of an asymmetric membrane for reverse osmosis, is described. A dil. soln. of a cellulose ester, e. g. mono-, di- or tri-acetate, propionate, butyrate, cyanoethylate, methacrylate or their mixts., is prepd. contg. $\leqslant 15$ wt % of a solvent for the cellulose ester and at least one pore-forming substance (I). The solvent has a b. pt. $\geqslant 30$°C under the b. pt. of (I) and is pref. methyl chloride, acetone or dioxane. The cellulose ester is insol. in (I) which is isopropand, ethanol, methanol etc.

The soln. is cast to form a thin membrane from which solvent and (I) are evaporated. The membrane may be used to remove fluid from material, e. g. water from seawater or to concentrate beer. 9. 12. 74 as 458208 (7pp068)

ALLM D15 50993W/31 =DS 2508-548
Separating dissolved fluorides from aq solns - by contact with alkaline earth metal carbonate pref calcium carbonate, particles
ASEA-ATOM AB 18.12.74-SW-015876 (19.03.74-SW-003650)
*C04 E33 K07 (K05) (23.05.79) *BE-826-713 C02c-05/02*

Process for the removal of dissolved fluorides from aq. waste liquors from plant for the prodn. of uranium fuel, comprises pptn. of CaF_2 using $CaCO_3$, (75 wt% with particle size $>$ 0, 08 mm), at temps. $>$ 50° (pref. 60-120°) and at pressures 1-10 atm. Pref. the aq. soln. is passed through a bed of $CaCO_3$ (pref. 1-5 m depth). 27.2.75 as 508548 (+4. 7. 74(2)-SW-008798/9) (5pp047)

FARH D15 17975A/10 =DS 2638-957
Odour suppressant for human or animal excrement - contains ferric sulphate and opt. sodium bi:sulphate and ammonium sulphate
HOECHST AG 28.08.76-DT-638957
*E31 P34 (23.05.79) *DT2638-957 A61l-09/* C05f-03 C05g-03*

Agent to remove smell from human and animal excrement contains $>$5% ferric sulphate with up to 95% sodium hydrogen sulphate and/or up to 60% ammonium sulphate. Agent pref. contains 20-95% ferric sulphate, 5-80% sodium hydrogen sulphate and/or 5-50% ammonium sulphate. 28.8.76 as 638957 (4pp068)

ABSP- ★ D15 40751B/22 ★DT 2751-509
Worm conveyor for sewage - has lubricant pipe passing through bearing block to base plate
ABS PUMPEN GMBH 18.11.77-DT-751509
Q35 (23.05.79) B65g-33/32

The conveyor has a worm, which is turnably held in an upper and a lower bearing block; and a lubricant pipe, leading to the block. The lubricant pipe passes through the support of the bearing block to its base plate, and then extends as a bore through the block to the bearing itself.

With use of concrete foundations, and an anchored fastening plate, as a support for the block, a bore is provided coaxial to the lubricant feed bore in the block, thereby allowing a connection for the feed pipe, which is fastened below the fastening plate. 18.11.77 as 751509 (9pp253)

PLAR ★ D15 40765B/22 ★DT 2751-671
Corrosion-protective sequestering water processing compsn. - contains zeolite spray-dried as a dispersion into an alkali di:silicate soln.
WOELLNER-WERKE 6700 18.11.77-DT-751671
M14 (23.05.79) C02b-05/02 C23f-14/02 C23f-15

Finely divided zeolite compsn. consists of a spray-dried mixt. contg., by wt., 10-70% zeolite and 90-30% alkali silicate.

The compsns. can remove Ca- and Mg ions from drinking- and waste water.

The particles, consisting of hollow zeolite and silicate mixt. spheres, have particle size 0.2-0.3 mm., form no dust and are free-flowing. Ion adsorption- or -exchange capacity corresponds to that of zeolite particles having max. particle size 15 µ. On contact with water, the silicate dissolves and the zeolite unfolds its absorption-, masking- or ion-exchange activity. The silicate buffers zeolite-caused acidify and forms a protective colloidal siliceous film or reacts with the metal ions of conduits.

The alkali silicate is esp. a disilicate in which M_2O: SiO_2 ratio is 1:2. The compsns., which pref. contain 1-20 wt.% water, are prepd. by spray-drying the finely divided zeolite dispersion contg. 35-60 wt.% solids, into an alkali silicate soln. Spray-drying takes place at 370-400°C. and dispersion temp. is 70-100°C. 18.11.77 as 751671 (7pp200)

BOHN/ ★ D15 40792B/22 ★DT 2751-845
Biological sewage aeration basin - with impeller on bridge providing intense aeration and motive power
BOHNKE B 19.11.77-DT-751845
(23.05.79) C02c-01/10

A biological sewage treatment uses a circular basin with a revolving bridge from the centre to the rim which carries an aeration impeller. The aerator has a greater distance from the centre of the basin than half the radius of the basin. A curved guide plate is arranged between the aerator and the basin centre.

Basins with a large radius are thus aerated very effici-
ently. The function can be adapted to different
ditions by adjusting the depth of the guide plate
tor. 19.11.77 as 751845 (13pp39)

ICEB- ★ D15 40841B/22
Self-stabilising floating tower - with sea access to upp
and shock absorber in lower part of cylindrical tower
ICEBERG TRANSPORT 22.11.77-FR-034980
H01 Q24 (23.05.79) B63b-35/44

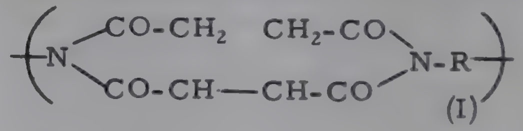
Self-stabilising floating tower for use in offshor
erations or in iceberg towing consists of a vert
ended cylinder which is divided by a horizontal
into two parts. The lower part includes a dome-
space, partly filled with air to act as a shock a
and a ring of floats which can be flooded. The u
is perforated over one half of the periphery and
cess to the sea. This limits the vertical tower
$<$ 20%. 17.10.78 as 845191 (17pp39)

ICEB- ★ D15 40842B/22 ★
Self-stabilising floating tower - with platform joined by
and columns to submersed floats
ICEBERG TRANSPORT 22.11.77-FR-034979
H01 Q24 (23.05.79) B63b-35/44 B63b-39

Self-stabilising floating tower for use on the hig
offshore well operations or iceberg towing consi
cylindrical platform which is joined by a central
peripheral columns to a ring of submerged float
can be flooded. They surround a buoyancy space,
partly with air to act as a pneumatic shock abso
the vertical tower motion. Ballast is added at th
The vertical motion of the tower is minimised.
as 845192 (22pp39)

NITL ★ D15 40894B/22 ★
Self-supporting permselective polyimide membrane - de
butan-tetra.carboxylic acid and di:amine, useful in reve
and ultrafiltration
NITTO ELECTRIC IND KK 18.11.77-JA-139383
A88 J01 (A26) (23.05.79) B01d-13/04

The membrane contains a polyimide polymer (I)
ring units of formula (I) (in which R is a divalent
gp.).



$$\left(-N\begin{matrix}\diagup CO\text{-}CH_2 & CH_2\text{-}CO\diagdown \\ \diagdown CO\text{-}CH & \text{—}CH\text{-}CO\diagup\end{matrix}N\text{-}R-\right) \quad (I)$$

The memb
which are hig
tive, are use
verse osmosi
filtration, e.g. for the desalination of sea water
sewage treatment and purification and concn. in t
and fermentation industries. 17.11.78 as 84997
(53pp16)

LINM D15 37266B/20 =
Two/stage biological sewage treatment - recirculating hi
waste gas from second inorganic to first organic conversio
LINDE AG 03.11.77-DT-749265
*(30.05.79) *DT2749-265 C02c-01/06*
D/S: E(BE, CH, FR, GB, NL).

A two-stage biological sewage treatment system
in the first stage the organic and in the second sta
inorganic contaminants. Oxygen or a high-oxygen
introduced in the second stage and the high-oxyge
flow is directed into the first stage. The outflow,
ed from the second stage, is so dimensioned that
oxygen demand of the first stage is covered.

This ensures a reliable nitrification of the sew
out major engineering efforts.

3.11.78 as 101293 (8pp39).

(G) ISR: DT2133563; DT2321725.

MANO- ★ D15 40973B/22 ★
Filter press with filter plate stack - in which plates ar
individually from stack for filter cake removal
MANOR ENG CO LTD 29.11.77-GB-049579 (25.10.77-GB
J01 (30.05.79) B01d-25/12 C02c-03
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Filter press comprises separate filter plates supp
by a main frame in a stack at one end during filte
movable, one by one, to the other end of the frame

er cake removal. Each plate is moved from one end
he frame to the other by a first reciprocating carriage
ing a pawl which drags the plate.
The plate immediately adjacent the plate being moved
retained in the stack by a holdback mechanism com-
sing a rack and a second reciprocating carriage having
atch for engaging the plate to be retained. In each
le of movement the first carriage displaces the second
rriage through a distance equal to the thickness of a
gle plate.
The press is used e.g. for treating clay and water sus-
nsions. The plates are moved individually without the
echanism for moving them becoming clogged with the
aterial being filtered and causing jamming of the press.
.9.78 as 300425 (18pp67).
) ISR: GB1218822; GB1441316; GB829711;
31058991; GB1234787; GB1263809; GB1349865.

ET- ★ D15 40979B/22 ★EP ---2-115
cteriological closed loop toilet waste system - purifies waste to
oduce flushing liq. for recycle to toilet station
THETFORD CORP 11.11.77-US-850559
*Q42 (30.05.79) C02c-01 E03d-05/**
/S: E(BE, DT, FR, NL, SW).

ne system comprises a treatment zone for bacteriolog-
ally purifying waste from a toilet station to produce
rified liq. for use as a flushing liq. The treatment zone
s an anoxic station in which oxidised nitrogen cpds.
e broken down to produce nitrogen gas and bicarbonates.
Liq. from the anoxic station is passed to an aerobic
ation contg. biological active solids in which ammon.
ds. are nitrified to oxidised nitrogen cpds. at the same
me as organic materials are removed by bacteria. The
ixed liq. contg. nitrates is filtered to provide liq. contg.
idised nitrogen cpds. free of bacterial sludge which is
eturned via a disinfection stage for use as flushing liq. in
e toilet station.
The amount of biologically active solids in the aerobic
ation and the amount of organic material supplied from
e anoxic station is balanced to achieve min. prodn. of
udge for subsequent disposal.
).10.78 as 300565 (20pp67).
C) ISR: US3666106; US3900394; US3844946; US3950249;
S3776383.

AIRL ★ D15 41032B/22 ★FR 2401-101
reating waste water by activated sludge process - with preliminary
ermentation in basin with controlled residence time
AIR LIQUIDE L' 22.08.77-FR-025504
(27.04.79) C02c-01/06 C02c-05/10
he process uses a preliminary fermentation zone and
hen an activated sludge treatment zone. The residence
ime in the preliminary zone is controlled according to
he pollutant charge of the water so that the multiplica-
ion of bacteria carries onto a level corresp. to the ex-
ponential phase.
The process is carried out in an installation compri-
sing 2 basins. The first fermentation basin bas means
o vary the volume of water it contains according to the
pollution level. The first basin is linked to the second
activated sludge basin by a conduit opt. provided with an
adjustable valve, and opt. by a weir.
The process avoids the risk of destruction of the ac-
tivated sludge, partic. protozoa, by, for example, eff-
luent from distilleries and paper-making. It enables
great adaptability and economy in oxygen consumption.
22.8.77. as 025504 (12pp597)

AMER D15 43264Y/24 =GB 1546-664
Tubular filter with slotted axial discharge conduit - receiving ends of pair of filter sheets including spacers
AMERACE ESNA CORP 30.05.75-US-582453
*A88 J01 (31.05.79) *US4028-250 B01d-31*

Cleaning of a clogged fluid filter element within a housing by using a portion of the unfiltered fluid supply to impart motion to a movable hollow cleaning body within the housing. The device allows material unable to pass through the filter to be swept out of the housing via a special clean-

The device provides an effective cleaning action on successive zones of the filter without the need to provide an external source of energy e.g. an electric motor, to drive the cleaning device. 4.5.76 as 018262. (6pp397)

MITK D15 15001Y/09 =GB 1546-681
Liq. phase oxidn. of effluents - contg. organic substances, by copper ammonia catalyst under prescribed process conditions
MITSUI TOATSU CHEM INC 14.08.75-JA-098080 (14.08.75-JA-098077)
*(31.05.79) *DT2636-609 C02b-01/34 +C01g-03*

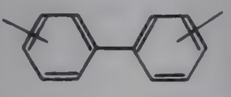
Liq. phase oxidn. of an organic substance-contg. aq. effluent is effected by treating the effluent with O_2 or O_2-contg. gas in the presence of (1) a Cu or Cu-contg. catalyst and (2) ammonia or an ammonium salt, the Cu ion concn. being 50-5000 ppm. and the NH_4 ion concn. being $\geqslant 5$ times that of the Cu ion. Treatment is carried out at pH 6.0-10.0, at 150-300°C and 10-100 kg./cm^2. The Cu or Cu-contg. catalyst is recovered from the treated effluent.

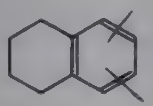
Method reduces the COD of effluents from e.g. ammoxidation processes for mfr. of (meth)acrylonitrile, paper pulp mfr. and refuse and sewage treatments. The pH range used reduces corrosion of plant cf. known methods effected at pH ~ 5. 5.8.76 as 032721 (+14.8.75(2)-JA-089078-9) (16pp927)

CIBA D15 45241Y/26 =GB 1546-809
Polymeric quat. ammonium salts derived from bis halomethyl diphenyl - useful as levelling agents for dyeing acrylics etc.
CIBA GEIGY AG 23.12.75-CH-016697
*A87 F06 +P34 (A91) (31.05.79) *BE-849-728 C07c-87/30 C07d-295/12 C08g-73/02*

Polymeric quat. ammonium salt has cationic units of formula $[-N(R_1)(R_2)\oplus-A_1-N(R_3)(R_4)\oplus-CH_2-A-CH_2-]$ (I). In (I), R_{1-4} are each opt. substd. (cyclo)alkyl or alkenyl with $\leqslant 20$C atoms, aryl or aralkyl, or R_1 and R_2 and/or R_3 and R_4, together with the N atom to which they are bonded, form an opt. substd. heterocyclic ring with 3-6 ring members.

A_1 is e.g., $-(CH_2)_m-$, in which m is 1-20, which is opt. interrupted by $\geqslant 1$ -S-, -C(=O)- or -XH=CH- grouping or substd. by $\geqslant 1$ halo atom or OH, nitrile, (hydroxy)alkyl, alkoxy, carboxyl or carbalkoxy radical or by $\geqslant 1$ opt. substd. ar(alk)yl radical; or A_1 is a deoxypolyoxyalkylene radical of formula $-(alk-O)_x-alk-$, alk representing an alkylene gp. and x being $\geqslant 1$; and A_2 is a gp. of formula (II) or (III).


(II)


(III)

(I) are suitable as dyeing auxiliaries esp. as levelling agent, in processes for dyeing and printing textiles of natural or synthetic fibres. 21.12.76 as 053309. (35pp936)

YTKE- D15 74363X/40 =GB 1546-813
Removing colloidal impurities from aq. dispersions - esp. de-inking pulp, by adding surfactants to form mycellar solns. of impurities (NL140976)
YTKEMISKA INSTITUTE (TIDN-) 11.03.75-SW-002720
*A97 F09 (31.05.79) *DT2610-277 D21c-05/02*

Paper is de-inked by (a) treating an aq. pulp slurry with a surface active amine as a surfactant to disperse impurities; (b) pptg. the dispersed impurities from the aq. phase; and (c) removing the pptd. impurities by sedimentation, flotation, centrifugation or filtration.

Process is partic. suitable for treating newsprint. 11.3.76 as 009820. (9pp936)

POLA/ D15 74403X/40 =GB 1546-820
Effluent clarification system - using organic flocculation aids for post orthokinetic agglomeration in sludge bed zones
POLASEK P 19.03.75-US-559717
*A91 (31.05.79) *DT2611-727 C02b-01/20*

Water treatment method is claimed in which a prim. coagulant is added followed by vigorous agitation for < 15 mins. at a velocity gradient > 100/sec. Towards the end of the treatment period a flocculant aid is introduced to complete the sepn. and the mixt. transferred to a sepn. vessel where under conditions of gentle agitation, with a velocity gradient < 100/sec. the growth of large, rapidly settable agglomerates is promoted.

The velocity gradient is calculated by a claimed relationship based on the process parameters. The combination of coagulation followed by orthokinetic coagulation allows lower concns. of polymeric coagulations to be used without less of quality in the final treated water. 19.3.76 as 011194. (12pp397)

MONS D15 39811Y/23 =GB 1546-870

Sepg. neutral organic cpds. from aq. solns. - by dialysis through a polymeric membrane kept at a reduced chemical potential on the far side

MONSANTO CO 01.12.75-US-636400

*A88 J01 (31.05.79) *BE-848-915 B01d-13*

A neutral organic component (i.e. an alkanol, alkylbenzene or organic nitrile) is sepd. from an aq. soln. by contacting the feed with a continuous hydrophobic polymer membrane, selectively permeable to the neutral component; maintaining a second, opposite membrane at a lower chemical potential than the first; permeating part of the neutral component through the membrane; and withdrawing, from the second membrane, a mixt. of water and neutral component having a higher concn. than the feed.

The process requires min. equipment and energy, thus reducing cost. 30.11.76 as 049807. (11pp976)

KRUG- D15 84370X/45 =GB 1546-900

Double drum centrifuge - for dewatering sewage sludge using different speeds for the drums to vary the gravitational force

KRUGER I A/S 21.04.75-DK-001702

*P41 (31.05.79) *NL7604-135 +B04b-03/04*

Sewage sludge is drained using two coaxial rotatable drums with the material fed into the inner drum at one end while the other end of the drum is closed.

Common outlet from the inner drum allows the sludge and liq. to flow, by centrifugal force into the outer drum where the liq. is sepd. and leaves via a fluid outlet. The sludge, sepd. and compressed on the outer drum walls is removed using a helical scraper device. The arrangement is designed to ensure that the liq. level in both drums remains the same.

By using two drums for the sepn. the overall length can be reduced together with the size of the main bearings required to support the device. 21.4.76 as 016087. (4pp397)

EBAI ★ D15 41122B/22 ★J5 4003-359

Phosphate removal from soln. - by chemical or physical chemical and contacting with phosphate ore contg. calcium phosphate

EBARA INFILCO KK 10.06.77-JA-068620

(11.01.79) C02b-01/23 C02c-01/40 C02c-05/02

Phosphates are effectively removed over long period and stably from a liquor contg. M-alkali components (water-hardening components, i.e. Mg^{2+} and Ca^{2+} etc.) and phosphates by subjecting it to a chemical or physical chemical treatment to lower its M-alkali components as small as possible, and subsequently contacting it with phosphate ores contg. Ca phosphate at a pH of 6.0-11.0.

The chemical treatment comprises e.g. adding an acid to the liquor to be treated to adjust its pH to 3-6, and subsequently introducing the acidified liquor to a stripping appts. where the M-alkali components are released in the open air. The physical chemical treatment comprises e.g. adding $Ca(OH)_2$ to the liquor to be treated in amt. of corresp. to the amt. of the M-alkali components to ppte. if in form of $CaCO_3$. 10.6.77. as 068620 (6pp34)

KANF ★ D15 41135B/22 ★J5 4006-863

Desalination of sea-water - using solar energy-maintaining uniform flow-down of water during evapn.

KANEGAFUCHI CHEM KK 20.06.77-JA-073652

(19.01.79) B01d-03

A vertical plastic (durable to salt) column contains a salt water receiver in an upper space to receive the sea water. Small holes are bored through the bottom of the receiver so that the most sea water flows into circular cylinder connected below the receiver, while a part of the water flows over the outer wall of the cylinder.

Synthetic fibre bundles are hung down to allow the water to flow down without contacting with the inner wall of the cylinder, thus assuring a uniform flow-down of
water during evaporating water. The device is u
e.g. desert areas. 20.6.77. as 073652 (2pp26)

TOMI/ ★ D15 41255B/22 ★

Treatment of industrial waste water e.g. from steel
adjusting pH of water with acid, then adding synthetic w
prior to coagulation, to improve setting etc.

TOMIHISA K 05.07.76-JA-078901

F09 J01 M24 (17.04.79) B01d-21/ C02c-05/02*

Industrial waste water, e.g. paint waste liquor,
mill waste liquor and steel plants waste liquor et
subjected to an effective coagulation treatment wi
necessitating dilution with water even in high conc
adjusting its pH to $<$4 with an acid then adding sy
wollastonite in an amt. of 2-30 wt.% based on the
water until the pH value becomes 7.5-8.5.

A polymer coagulant may be desirably used in c
ation with synthetic wollastonite. The settlability
is improved cf. conventional coagulation, and the
tion of sludge is reduced. Further the sludge exhi
excellent drying and dewatering properties. 5.7.7
078901 (7pp34)

MITO ★ D15 41256B/22 ★J5

Microbiological treatment of waste liquor - contg. paper,
and soluble organic materials, e.g. domestic waste water,
waste water etc.

MITSUBISHI HEAVY IND KK 26.09.77-JA-114669

F09 (17.04.79) C02c-01/02

A waste liquor containing paper, cellulose and sol
org. matters etc., e.g. domestic waste water, ag
tural waste water, pulp mill waste water and food-
cessing waste water etc. is subjected to a treatme
culturing a microorganism capable of producing ex
zyme composed mainly of cellulose and β-glucosid
while using paper and cellulose as the growing sou
belonging to Aspergillus group, Penicillium group,
arium group, Bacillus group, Cellulomonas group,
vibrio group or Cellfalcicula group etc., which cau
the paper and the cellulose etc. to react with the e
enzyme so as to reduce the mol.wt. and impart sol

The pH value of the process is pref. maintained
5.5. Cellulose serves to hydrolyse β-1,4-glucoside
ding of cellulose to form cellobiose or glucose, and
glucosidase serves to convert cellobiose into gluco

The microorganism can decompose soluble org.
ers except paper and cellulose, thereby it is pref.
make the contact time as short as possible. 26.9.7
as 114669 (4pp34)

HITF ★ D15 41257B/22 ★J5

Solidification of mud-water sludge to hard gel contg. heavy
where the solidification rate is increased by treatment w
sodium silicate and conc. acid solns.

HITACHI SHIPBLD ENGG KK 26.09.77-JA-115713

(17.04.79) C02c-03 C02c-05

Mud water having high water content (a sludge accum
at the bottom of sea or river etc.) is solidified with
a very short period, and converted into a gel having
high hardness. Re-dissolving of heavy metals from
solidified gel is avoided by adding highly conc. Na
cate and acid solns., followed by agitation, for soli
tion.

The solidification time is further reduced by incr
sing the concns., of the Na silicate and acid solns.
26.9.77. as 115713 (4pp34)

HITA ★ D15 41366B/22 ★J5

Regenerating ion exchange resin in boiling water reactor
aq. soln. of sulphuric acid contg. hydrogen peroxide or s
sulphate to dissolve iron oxide

HITACHI KK 28.09.77-JA-115570

E36 (19.04.79) B01j-01/09 C02b-01/40

Method comprises using aq. soln. of sulphuric acid
concn. of 10 to 50 % contg. H_2O_2 or stannous sulpha
40° to 50°C to dissolve iron oxide adhered to ion ex
resin.

Iron oxide adhered on the surface of ion exchange
may be removed at low temperature without injurin
exchange resin. Therefore this method is useful for
erating water in boiling water reactor. 28.9.77. as
115570 (3pp96)

★ D15 41439B/22 ★J5 4050-142
nent of heavy metal-contg. sludge - includes heating in low
en atmosphere at elevated temp. to convert heavy metal
onents into stable cpds. and reduce water content
SSHIN ELECTRICAL KK 29.09.77-JA-117360
14 (19.04.79) C02c-03

y metal-contg. sludge e.g. obtd. from plating waste
r, industrial waste etc. is heated at 80-200°C in a
O_2 atmos. e.g. of N_2 or CO_2 or in vacuo, so that the
y metal components are converted into chemically
e components difficultly soluble in water without
lting in the oxidn. of the heavy metal components,
simultaneous evapn. of the water content of the
ge to greatly decrease its wt. and vol.
reated sludge is used for land fill or discarded into
ocean without any dissolution of the heavy metal com-
nts. 29.9.77. as 117360 (3pp34)

★ D15 41440B/22 ★J5 4050-144
tment of heavy metal-contg. effluent - includes adding flocs of
cpd. and heating to form ferrite
AITSUBISHI PETROCH KK 28.09.77-JA-115656
A14 (19.04.79) C02c-05/02

emoving heavy metal components from effluent by
ing flocs of iron cpd. followed by heating to form by
dation ferrite, the improvement comprises increasing
concn. of the flocs prior to the heat treatment e.g. ,
allowing to stand etc., so that the ferrite having high
ity, low solubility in acid, is obtd. in high yield while
pressing excess oxidation of Fe^{2+} , further the heavy
tal components, e.g. Cr, Zn, Cu, Ni, Co, Mn, Pb
and Cd etc. are hardly redissolved from the sludge of
ferrite, thereby it is suitably reused as industrial
terial or discarded without any contamination.

The iron cpd. flocs are, e.g. prepd. by carrying-out
electrllysis of waste waters by use of iron as the
ode or by adding a ferrous salt, e.g. ferrous sulphate
. to the waste water followed by further adding alkali
tters, but the former is more advantageous because
addition of the alkali matter is not necessary.
.9.77. as 115656 (5pp34)

AI ★ D15 41441B/22 ★J5 4050-146
dn. of ammonium-nitrogen converting bacteria in water
atment - with addn. of BOD source to improve adhesion of
teria to solid supports
EBARA INFILCO KK 28.09.77-JA-116330
(19.04.79) C02c-01/02

converting , by biological oxidn, ammonium nitrogen
ntained in water having BOD value <5 mg/l into nitrate /
rate nitrogen under aerophillic conditions using the
logical fixed bed process wherein nitrifying bacteria
e present on the surfaces of medium, e.g. submerged
ters, trickling filters and fluidised bed etc. the impro-
ment comprises adding a BOD source e.g. MeOH,
ucose and molasses etc. to the water in amt. of 3-20
g/l, pref. 3-10 mg/l where increasing the proliferation
nitrification bacteria, e.g. Nitrosomonas and Nitro-
cter etc.

The adhesion of the bacteria to the surfaces of the
edium is improved due to secretion of sticky material,
d therefore the proliferation increasing period is short-
ed. It may be used as the BOD source an outflow dis-
arged from the subsequent denitrification step main-
ined under anaerobic conditions. 28.9.77. as 116330
pp34)

G ★ D15 41442B/22 ★J5 4050-148
moving organic pollutants from effluent - by treating with
croorganisms adhered to nonwoven cloth or foamed resin plates
an aeration vessel
NIIGATA ENG KK 28.09.77-JA-116459
A88 (19.04.79) C02c-01/06

removal of organic pollutants, e.g. BOD and COD
mponents etc. from an effluent esp. contg. sticky
udge, e.g. a silicate-contg. tunnel effluent and a Ca
lt-contg. industrial waste water etc. by the action of
icroorganisms adhered to the surfaces or the internal
nnecting spaces of non-woven cloth or foamed poly-
ethane plates arranged in parallel in the innerpart of
aeration vessel, the nonwoven cloth-made plate(s) being produced by adhering together synthetic resin-fibres, e.g. made of nylons, polyvinylidene chloride and polyvinyl/chloride etc. with adhesive or by heat treatment, the improvement comprises introducing air directly into the effluent from a diffusing pipe provided at the underpart of the cloth- or resin-plates to pass upwardly a stream of water-air bubbles mixt., so that clogging between each of the cloth or resin plates due to the excess sticking of sludge is prevented, and the oxygen-transmitting effect against aerophilic microorganisms improved. 28.9.77. as 116459 (5pp34)

HITA ★ D15 41502B/22 ★J5 4050-475
Device for conditioning heat exchanger cooling water - detects conductivity of water leaving cooling tower and passing into heat exchanger and opens by/pass line contg. adsorption units
HITACHI KK 30.09.77-JA-116831
J08 (20.04.79) B01j-01 C02b-01

When a partially treated waste water is used in a refrigerator or an air conditioner as a cooling medium, a device is provided to detect the electric conductivity of the water leaving a cooling tower and passing into a heat exchanger, and to open valves in the by-passing line including adsorption units when the measured electric-conductivity is above a predetermined limit.

The water leaving the heat exchanger is recirculated into the cooling tower where it is cooled to the desired reduced level for reuse. When the electric conductivity of the water is found to be below the predetermined level, the valves are closed so that the water is directly conducted from the cooling tower to the heat exchanger. 30.9.77. as 116831 (3pp47)

MATU ★ D15 41458B/22 ★J5 4050-397
Desulphurising agent for the analysis of water - comprises oxide of lead, manganese or bismuth granulated with (in)organic caking agent
MATSUSHITA ELEC IND KK 28.09.77-JA-117070
A89 J04 R16 (20.04.79) G01n-33/18

Desulphuriser (I) for the analysis of water is prepd. by granulating powder of PbO_2, Pb_3O_4, MnO_2, PbO or Bi_2O_3 with organic caking agent such as vinyl chloride or inorganic caking agent such as calcined plaster.

(I) can be easily sepd. after desulphurisation and causes no sec. interference to sample liquid. (I) is useful for removing sulphides, which interfere with the determination of anions or cations in water, in the analysis of water by ionic analysis, colorimetric analysis, turbidimetric analysis, etc. 28.9.77. as 117070 (6pp50)

SHIF ★ D15 41503B/22 ★J5 4050-476
Removing nitric acid type nitrogen from waste water - by absorbing with ion exchange resin and treating the spent resin with BOD of the water
SHINMEIWA IND KK 29.09.77-JA-117706
(20.04.79) C02c-05/08

The method comprises adsorbing nitric acid type nitrogen contained in waste water with an ion exchange resin, and treating the waste resin with BOD of the waste water used as bacteria for regeneration of the resin.

Specifically, waste water is introduced from an adjusting tank through air oxidising tanks into separating tank separately obtain crude water and sludge, where one portion of the sludge is recycled. The crude water is introduced through an aggregating tank and a valve into one ion exchanging tank to obtain treated water through a valve. One portion of the waste water is introduced from a tank through another and valves into the other ion exchanging tank positioned in parallel with the first ion exchanging tank to regenerate the waste ion exchanging resin with BOD of the waste water. 29.9.77. as 117706 (4pp51)

ESMI- ★ D15 41510B/22 ★J5 4050-484
Appts. for distilling water from aq. soln. contg. dissolved cpds. - partic. for desalinating sea water
ESMIL BV 13.09.78-JA-111826
J01 (20.04.79) B01d-03/06 C02b-01/04

Appts. comprises evapn. chambers (I) fitted in series perpendicular to the downward flow of the aq. soln. and

By means of this auxiliary guide system, the attitude changes of the teeth are smooth and continuous enabling larger teeth to be used without causing undue mechanical strain due to the knocking of teeth against guide lugs. 8.10.69 as 015180 (10pp1370).

ANON ★ D15 41701B/22 ★RD-181-011

Ultrasonic monitor for centrifugal separator for effluent - with trips relay to initiate emptying of rotor when attenuation of ultrasonic signal indicates too much sludge in liq. emerging from rotor

ANONYMOUS 20.04.79-RD-181011
*(10.05.79) C02c-00/**

When the quantity of sludge in the rotor becomes excessive efficiency falls and the proportion of sludge in the emergent liq. rises, so the rotor must be emptied. To imitiate emptying of the rotor automatically, the sludge content of the emergent liq. is detected ultrasonically by means of a transmitter crystal and a reciver crystal on opposite sides of the liq. stream. During normal operation, the signal from the receiver crystal is sufficient to hold a relay open. When the sludge content rises, the signal is attenuated and the relay eventually closes, initiating emptying of the rotor.

To allow adjustment of the sludge content value that trips the relay, a variable-gain amplifier may be connected between the receiver crystal and the relay. Alternatively, several relays with different tripping values may be used.

ANON ★ D15 41703B/22 ★RD-181-013

Ethylenically unsatd. carboxamide polymers - having improved filtration and flocculation properties

ANONYMOUS 20.04.79-RD-181013
*A14 H01 (A91 A97) (10.05.79) C08g-00/**

Polymers of ethylenically unsaturated carboxamides having improved filtration and flocculation properties are prepd. by polymerising the carboxamide in the presence of a chain transfer agent such as a lower alkanol.

In an example a water-in-oil emulsion contg. acrylamide opt. in admixture with acrylic acid was polymerised generally by the process described in US 3, 284, 393 except that from about 0.5-2 wt. per. of isopropyl alcohol based on monomer was employed.

Water soluble polymers prepd. are useful as fluid mobility control agents in enhanced oil recovery methods as well as flocculants for the treatment of aqueous suspensions of inorganic and organic solids.

ANON ★ D15 41726B/22 ★RD-181-047

Discontinuous active sludge treatment of effluent water(s) - with maintenance of sludge activity in non operational periods by addn. of nutrient(s)

ANONYMOUS 20.04.79-RD-181047
*(10.05.79) C02c-00/**

A biological effluent water treatment process is using active sludge is adapted for discontinuous operation. After treatment of a batch of effluent with the active sludge under suitable conditions (eg aerobic conditions, controlled pH), the effluent is run off and a certain amt. of rinsing water is introduced into the active sludge per unit of amt. and time, and is then removed from the sludge and recycled. In addn. the activity of the sludge is monitored abd when the level of activity had fallen to a certain minimum value, nutrients are added which contain at least as assimilable carbon source for the sludge.

Mortality of the sludge strain is avoided during rest periods and high sludge activity is ensured from the beginning of treatment of each new batch of effluent.

ANON ★ D15 41734B/22 ★RD-181-058

Acrylamide polymer flocculant prodn. - by blending powdered polymer with alkali metal carbonate powder

ANONYMOUS 20.04.79-RD-181058
*A91 (A14) (10.05.79) C08g-00/**

Acrylamide (co)polymer powder is first blended with an alkali metal carbonate powder (I). The mixt. is then dissolved in H_2O. The solubility of the polymer is increased and the prod. has improved activity of flocculatin of e.g. clay from the aq. phase. 2-20 wt. % of (I) based on polymer is suitable.

In an example an aq. soln. of polymer prepd. by polymerising acrylamide using an organic hydroperoxide/ metal persulphate catalyst at 90°C, and contg. a roll release agent and sodium thiosulphate as stabiliser wa dried using steam (110 p.s.i) The dry prod was groun <16 mesh. It was then dry blended with sodium carbo (I) powder to give a blend contg. 4 wt.% (I). The prod dissolved in H_2O and had reduced insolubles and great visocity than inserted polymer.

DZNI= ★ D15 41823B/22 ★SU-61

Purificn. of waste water contg. organic waste - by passing thr semipermeable membrane contg. polyethylene modified polyacrylic acid

DZERZ NITROGEN ORG (AUHI=) 13.02.74-SU-995596
A88 (26.06.78) B01d-13 C02b-01/82

Waste water contg. organic and inorganic impurities i purified by passing it through a semipermeable membr To improve removal of organic cpds. (esp. methanol a formaldehyde) the aq. soln. is passed through a membrane based on polyethylene modified with polyacrylic acid.

Avdonin, Yu.A., Korneva, L.V., Konstantinov, I.I. et al. Bul. 28/30.7.78. 13.2.74. as 995596 (2pp938)

WASU ★ D15 41831B/22 ★SU-617

Potable water clarification cartridge filter - with central cham and flow directing insert with cartridge filters separated by tub panels

WATER SUPPLY HYDROGEOL 19.08.75-SU-166194
J01 (10.07.78) B01d-27/12

Cartridge filter for clarifying potable water, purifying effluents for industrial re-use, and clarifying cooling water for a variety of uses, has body divided by a tubula panel into two chambers. One of these contains the cartridge filter elements, while the other is divided into sections, plus a distributor head and pipes. Constructi is improved and operational reliability is increased by making the distributor head as a fixed conical insert wit holes and a rotating conical plug with slots in the side surfaces. The liquid to be purified is fed under pressur into a central cylindrical chamber so that it flows downwards passing through the holes in the conical insert at the bottom. From here it enters the filter sections, anc having passed through and been filtered, leaves through hole in the plug to the exit pipe.

Ponomarenko, V.S. Bul. 28/30.7.78. 19.8.75. as 1661 (4pp29)

TITA= ★ D15 41958B/22 ★SU-617-3

Chemical industry waste water purificn. - using hydroxylamine elevated temp. to improve removal of hypochlorite or toxic chlor impurities

TITANIUM EXPER INST 17.01.77-SU-443479
E36 (25.07.78) C01b-11/06 C02c-05/02

Industrial aq. waste contg. hypochlorite is treated with a reducing agent at raised temp., and the degree of decomposition of hypochlorite can be increased to $\sim$100% if the reducing agent used is hydroxylamine at a 125-150 excess of the stoichiometric amt. calculated on $C10^-$, a the process is carried out at 50-70°C.

The hydroxylamine, when used to treat soln. contg. 85.9 g./l. calcium hypochlorite, 0.6 calcium chlorate, 5.6 calcium oxide and 128 calcium chloride, gave a soln. contg. calcium oxide 5.6, and calcium chloride 197.8, with no hypochlorite or chlorate.

Pivovar, A.G., Akimova, N.A., Sedova, L.P. et al. Bul. 28/30.7.78. 17.1.77. as 443479 (2pp815)

ZAIK/ ★ D15 41966B/22 ★SU-617-37

Device for magnetic treatment of cooling fluid - has stator wi movable baffle in slot with input and output either side to reduc scale deposition

ZAIKOV M A 07.06.76-SU-369334
J04 P41 (07.07.78) B03c-01 C02b-09

The mechanism comprises a rotor, stator with magnetic system in slots in it, and input and output connections for the fluid in a sealed chamber between rotor and stator.

To improve efficiency of treating different fluids without altering treatment regime, the stator is made with an auxiliary slot and has a movable baffle in it. The input and output

r is eccentric to the stator and has a common contact : with it.
ov, M.A., Krotov, N.T., Lyapunov, R.A. et al. Bul 0.7.78. 7.6.76. as 369334 (3pp18)

I= ★ D15 41967B/22 ★SU-617-375

ds magnetic treatment appts. - to reduce incrustation on ing surfaces, has ferromagnetic rods in diamagnetic body unded by electromagnets

INNITSA POLY 07.07.76-SU-382612
04 (07.07.78) C02b-09

ice for magnetic treatment of liquids, to prevent the nation of incrustation, increase process intensifica- , as in absorption, catalysis, dissolution, etc., and ticularly for reducing the deposition of solids on the -transmission surfaces of heat-exchangers. Com- ses a diamagnetic body, on the outside of which are ctromagnets with their poles shaped like shoes. The ctiveness of the magnetic treatment is increased and metal content of the electromagnets is reduced, with wer power consumption, by fitting a system of ferro- gnetic rods inside the body parallel to the pole end faces and with an equal distance between them.
an, I.I., Strashevskii, E.L. Bul. 28/30.7.78. 7.7.76. 382612 (3pp29)

I/ ★ D15 41968B/22 ★SU-617-376

ustrial waste water purification unit - using vessel contg. screens n gulleys into which floating petroleum prods. and other light taminants overflow

LIKHACHEV E I 16.05.74-SU-023309
H05 J01 (07.07.78) C02c-01/26

vice for cleaning aq. effluents from petroleum and other ostances that are lighter than water, with their remov- and collection, as in petroleum refining, petrochemical lustries, etc. The body has inlet and outlet pipes, troleum-retaining and directing screens, and withdraw- gulleys.

The sepn. effectiveness and collection are increased placing protective-collecting screens in front of the troleum-retaining screens. These are made as two ates set at an angle of 135-145° to one another. The lleys are disposed in the top parts of the petroleum- llecting screens. The first of the protective screens the way the liquid is flowing) has a guiding deflector, d the following ones have collecting gulleys fastened to e top edges. Overflow plates are also fitted to the iding screens.
khachev, E.I. Bul. 28/30.7.78. 16.5.74. as 023309 pp29)

SH= ★ D15 41969B/22 ★SU-617-377

troleum contg. effluents settler-filter - has coalescing filters with eliminary settling tank between them, and sloping shelves to parate phases

BASHKIR PETROL PROD 05.06.75-SU-140933
J01 (07.07.78) B01d-17/02 C02c-01/26

ttling tank for cleaning petroleum-contg. effluents, to move the petroleum and mechanical impurities, is milar to that claimed in Author's Cert. 262837, which mprised a container divided by transverse screens into ctions, in each of :which two mesh filters were con- ructed. These were filled with a coalescing charge and rmed chambers between them, which acted as prelimin- y settlers. A downflowing pipe admits the dirty effluent us overflow screens. New cleaning effectiveness and roductivity are increased by adding sloping shelves, the p ones adjacent to the top edges of the overflow screens nd the lower ones connected to the walls of the container. distributor is positioned underneath the lower sloping helf.
aikov, U.M., Minigazimov, N.S., Mansurov, M.N. ul. 28/30.7.78. 5.6.75. as 140933 Add to 262837 (2pp29)

AME= ★ D15 41970B/22 ★SU-617-378

eparating oil from metal-rolling effluents - using reservoir across rface of which scraper conveyor takes floating oil to receiver

MAGN METAL WKS 09.12.75-SU-196500
H07 M21 (11.07.78) C02c-01/26

different densities, e.g. in rolling plants, to separate and recover palm oil from rolling effluent, includes a reservoir with inlet and outlet pipes, screens, scraper conveyor to scrape away the floating liquid with a sloping part, plus a container to receive the floating liquid. Collection effectiveness of the latter is increased, and power consumption is reduced by continuously cleaning the adhering oil from the scrapers. This is done by installing a heated grating in the floating liquid collector, which is positioned at the top end, with the scrapers being spring-loaded.
Bender, V.V., Litichevskii, M.M. Bul. 28/30.7.78. 9.12.75. as 196500 (3pp29)

AZOV= ★ D15 41971B/22 ★SU-617-379

Industrial effluent cleaner for salt soln. purificn. - has preliminary aerator with two spherical rings and perforated cone, to improve performance

AZOV BLACK SEA FISH 03.01.76-SU-307433
J01 (07.07.78) B01d-21 C02c-01/26

The cleaner consists of a conico-cylindrical casing with intermediate conical partitions, a helical trough on the outer service of the casing, a water delivery pipe, and a phase discharger. To increase performance, a preliminary aerator has two spherical rings and a perforated cone, the top ring abutting the outlet of the delivery pipe and the bottom ring the outer surface of the cone, whose larger base is located above the top ring. The device is used for removal of organic mixts. from salt solns.
Sakov, D.A. Bul. 28/30.7.78. 5.1.76. as 307433 (3pp 132)

YAST/ ★ D15 41972B/22 ★SU-617-380

Cleaner for petroleum-contg. aq. effluent - has filter which is protected by inclined gratings to give extended flow of droplet type

YASTREBOV P I 06.05.76-SU-357129
H05 (07.07.78) B01d-17/02 C02c-05

The cleaner comprises a tank with linked horizontal and acute angle partitions a filtration and a settling section, inlet and outlet pipes, and gratings in the settling section. To increase performance by controlling the impact points, the gratings slope and their inlet edges are above the outlet edges.
Yastrebov, P.I., Mutin, F.I. Krasnovekin, V.N. et al. Bul. 28/30.7.78. 6.5.76. as 357129 (2pp132)

CSMA= ★ D15 41973B/22 ★SU-617-381

Removing soluble fluorine cpds. from waste water - by pptn. as calcium fluoride with milk of lime followed by adsorption on tufa or shale treated with milk of lime

CONS MATLS IND RES 18.06.74-SU-033903
(27.07.78) C01b-07/19 C02c-05/02

Waste water is treated with a calcium-contg. reagent to ppte. CaF_2, then passed through an adsorbent pre-treated with milk of lime.

The degree of purificn. can be increased to give a fluorine level of $\leqslant 1.5$ mg./l. in the treated water if the adsorbent used is volcanic pumice or tufa, fuel shale or perlite, pretreated with milk of lime.

These adsorbents have 95-100% adsorption capacity for fluorine, compared to the 29-36% for the bentonite used previously. The treatment of the water with milk of lime gives water contg. $\sim$10 mg./l. fluorine, then this is passed through a 0.5-15 mm. fraction of tufa pretreated with milk of lime, which has a 95% capacity for fluorine, and it is held on the adsorbent for 3 hr.
Vershinina, V.V. Bul. 28/30.7.78. 18.2.74. as 033903 (2pp815)

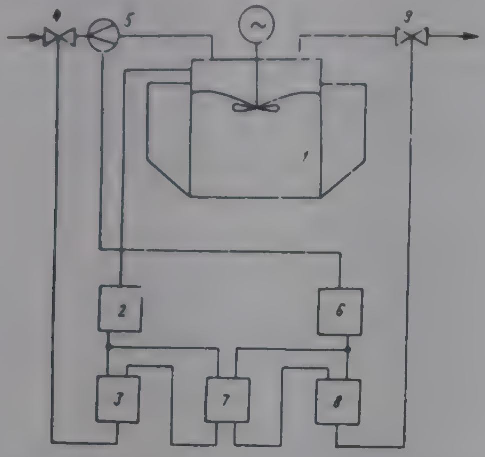
VODG= ★ D15 41974B/22 ★SU-617-382

Automatic regulator for gas in effluents oxygenation tank - includes oxygen flow integrator and oxygen consumption rate indicator, to improve reliability and reduce cost

VODGEO WATER SUPPLY 14.02.77-SU-452965
R26 (07.07.78) C02c-05/10 G05d-27

Automatic regulator for controlling the gas exchange regimes in effluents oxygenation tanks, uses measuring gas pressure converter connected via gas pressure regulator to oxygen supply valve and to aeration valve.

Increased reliability and cost reduction are ensured by providing the system with oxygen flow integrator (6) and oxygen consumption rate indicator (7). The integrator input is connected to the first inputs of the oxygen consumption rate indicator, whose second inputs are joined to the gas pressure converter (2).



Pateyuk, V.M., Smirnov, D.N., Vinitskaya, A.A. et al Bul. 28/30.7.78. 14.2.77. 452965 (3pp847)

VODG= ★ D15 41975B/22 ★SU -617-383

Automatic controller for sewerage settling tanks operation - includes sludge and clean water flow meters, flow ratio unit and sludge index meter, to control sludge feed to aeration tanks

VODGEO WATER SUPPLY 01.03.77-SU-456015
R26 (07.07.78) C02c-05/10 G05d-27

The controller comprises a sludge flow regulator linked to the sludge outlet valve of the secondary and ternary settlers. To increase performance by controlling the sludge feed to the aeration tanks, sludge and clean water flowmeters are also provided, together with a flow ratio block, and a sludge index meter. The ratio block is located between the meters and the flow regulator.

Gumbatov, R.T., Pateyuk, V.M. Bul. 28/30.7.78. 1.3.77. as 456015 (2pp132)

VESO/ ★ D15 41976B/22 ★SU -617-384

Removal of acrylic latex residue from aq. waste - by electrolysis at raised temp. using soluble anode in presence of sodium chloride, filtration and coagulation

VESOVA V S 20.12.76-SU-431915
A35 J03 (27.07.78) C02c-05/12

The degree of purificn. can be increased and the consumption of electric energy reduced if a temp. of 60-65°C is used instead of 20-25°C as before, at the same current density of ~ 100 amp./m². If the temp. is 70°C or above the latex residue remains gummy and adheres to the apparatus.

By comparison with the lower temp. process, coagulation time was reduced 1.5 times, electricity consumption was reduced 1.8-2 times, filtration rate was increased 7-8 times, and degree of purificn. was increased from 98.5 to 99.8%.

Vesova, V.S., Trofimenkova, T.K. Bul. 28/30.7.78. 20.12.76. as 431915 (2pp815)

JETA- D15 31660X/17 =US RE29-996

Upflow filter for domestic sewage treatment - divided into two chambers by L-shaped dividing wall

JET AERATION CO 17.03.75-US-558820 (11.03.74-US-449735)
*J01 (15.05.79) *US3950-252 B01d-23/16*

An upflow filter for use with a sewage treatment plant has two chamber separated by a wall, each having gratings dividing each chamber into top and bottom portions, each grating having a filtering medium covering, e.g. gravel.

A vertical opening is formed in the dividing wall having lateral exits communicating with the bottom portions of the chambers. The liq. inlet communicates with the vertical opening, the outlet being set at a lower level. The filter has no moving parts and can easily be backwashed by water. 3.10.77 as 838748 Reissue of 3950252 (+11.3.74,17.3.75-US-449735, 558820) (7pp1379)

PETX ★ D15 42163B/22 ★US 4154-086

Detection of volatile organic cpds. in water - by stripping with heated carrier gas

PETRO-TEX CHEM CORP 06.04.78-US-894183
H05 J04 R16 (15.05.79) G01n-33

Appts. for di

cpds. in water comprises a column having a lower z equipped with a source of heat, a sample water outle a carrier gas inlet, an intermediate zone, with a con ser and a sample water inlet positioned below the con ser; and an upper zone connected to a gas detection system.

The appts. is esp. suitable for detecting leaks of nic cpds. into industrial process waters. 6.4.78 as 8 (4pp955)

DENN/ ★ D15 42275B/22 ★US 41

Solar still including concentric domes - with outer dome transparent and inner dome carrying copper tubing transp brine

DENNEN N L 21.02.78-US-879592 (10.07.75-US-594740)
(15.05.79) B01d-01/02

A solar still comprises a dome having a first dia. an second dome of larger dia. placed concentrically arou the first dome to form a closed space between them. T second dome is formed of a material which transmits energy. Cu tubing has teo ends wound helically around first dome in the space. Any salt water passing throug tubing is evaporated.

Salt water is fed to one end of the tubing and the re ing steam is collected from the other end and is conde sed. Periodically salt deposited within the tubing may flushed out by connected the output end of the Cu tubing a discharge line to collect the flushed out conc. salt so

The appts. is used to produce potable water from sa water. 21.2.78 as 879592 (10pp295)

HITA D15 04745A/03 =US 4154

Processing waste water contg. sulphur cpds. - by passing weakly basic anion exchanger, desorption and decompositio sulphur cpds.

HITACHI KK (HIEJ HITG) 30.06.76-JA-076395
*E36 J01 (15.05.79) *DT2729-625 +B01d-15/06*

Treatment of waste water contg. dithionic acid ions com prises (i) selectively effecting anion exchange with dith nic acid at pH ≯ 8 by introducing the waste water to wea basic anion exchange resin, (ii) desorbing the acid ions from the resin by surrounding the resin with a soln. of ⩾10 to effect regeneration, and (iii) decomposing the d orbed acid ions by adjusting the pH of the soln. to 1.5 heating at ⩾ 60°C.

Sulphur cpds. present in the water can be effectively and economically decomposed providing an innoxious wa water. 28.6.77 as 810803 (8pp924)

SPON D15 78449U/51 =US 4154-

Ion exchanger purification plant - esp for removalof animal o vegetable matter from sewage

SPONCEL LTD (VISC) 02.06.72-GB-025902
*(15.05.79) *NL7307-704 +B01d-15/04*

An ion-exchange process for extracting dissolved mater from a liq. medium, partic. liq. waste effluent contg. p tein and/or fat, comprises (a) providing a particulate ce -lose ion-exchange material, 0-10% cross-linked; (b) ca sing ion-exchange interaction under agitated conditions produced by an agitation located in the reaction zone; an (c) sepg. reacted ion-exchange material bearing the extr -ted material from the resulting mixt. of reacted ion-exchange material and treated liq.

The cellulosic material can be recirculated to treat further liq., and the process is suited to continuous ope tion. 22.9.77 as 835493 (+4.6.73-US-366565) (12pp910)

TIMM/ ★ D15 42287B/22 ★US 4154-6

Appts. for sepg. oil film from water e.g. in a metal workin machine - with lifting belt, squeeze rollers, transfer trough an wiped rotating disc

TIMMER H 08.12.77-US-858848
J01 Q42 (15.05.79) B01d-33/02 E02b-15/04

The appts. includes a frame with a rotatable disc mounte horizontally, which is secured to the tank contg. the wate A drain trough is positioned adjacent the disc. Wipers remove liq. adhering to the disc, so that it flows into the trough. The oil is lifted from the tank by a belt which dips into the tank and then passes between two rollers which trough which extends fromthe nip between the rollers wnwardly to a posn. adjacent the disc.

The drive for the rollers includes a toothed periphery the disc and a power take-off including a spur gear inter gaged with the teeth and mountedon a shaft rotatable pported in the frame. It also includes an angle drive to nsfer torque from the shaft to at least one of the rollers Used partic. for removing contaminating lubricating oil om the surface of a water-base coolant in a metal work machine. The elevating device including the belt may installed as an attachment to a standard disc machine en necessary. 8. 12. 77 as 858848 (9pp295)

KA/ ★ D15 42288B/22 ★US 4154-684

oating porous discs on water oil spills - which facilitate burning of by subdividing the spill into oil columns, but minimise steam rmation

TOKARZ R D 26.08.77-US-827970

H03 (15.05.79) C02b-09/02

ater oil spill burning devices comprises rigid silica odies which float, each providing a flame support surface. hey are formed of numerous silica closed cell spheres ound together by an adhesive.

At least one of the bodies has a vertical aperture rough it which acts as a column cavity to receive a col-mn of oil. Each body is thermally insulative to minimise eat transfer between the water and flame support sur-ace. The vertical column of oil can be heated > 120°F to igorously burn the oil and draw additional oil into the avity. The bodies are close to each other so that a flame n one body will support combustion on an adjacent body.

Used to clear up oil spills from the surface of water. Formation of steam from the body of water is minimised and the use of the floating bodies allows the oil spill to b burned completely in situ. 26. 8. 77 as 827970 (5pp295)

MARC/ ★ D15 42289B/22 ★US 4154-6

Gravity flow septic tank system - with scum removal to preve trapping of gases

MARCOTTE O 30.03.78-US-891551 (04.05.77-US-793628)

(15.05.79) B01d-21/24 C02c-01/14

The system comprises ≥ 4 serially connected tank structures each forming an enclosed chamber. An inlet pipe brings raw sewage into the top of the first tank, and an outlet pipe from the last tank is positioned lower than th inlet pipe. Each tank is connected to its adjacent tank by transfer connection each of which comprises ≥ 1 horizont transfer pipe disposed at the upper level of its respectiv tank but slightly below the normal level of the preceding tank.

Each horizontal transfer pipe includes a narrow slot above the bottom of the pipe but below the centreline of t pipe. Accumulated scum is drawn through the slot and is discharged into the next tank.

The septic tank system is used in areas not connected mains drainage. Scum is removed from the scum-liq. int-face to mitigate against the build-up of a scum barrier preventing gas release from the contents of the tank. 30. 3. 78 as 891551 (6pp295)

D16 : FERMENTATION INDUSTRY

HIM- ★ D16 40655B/22 ★BE -873-695

erpene(s) steam-distilled from aromatic plants - for control of viral nfections in medical and microorganism food cultures applications

CHIMICASA GMBH 02.01.79-LU-080748 (27.01.78-LU-078955)

B05 C03 (D13) (16.05.79) A61k C12b C12k

Process for the inactivation of viruses in the presence of living organisms by use of one or more terpenes obtained by steam distillation of aromatic plants. Pref. the terpenes comprise one or more of black pepper oil, cinnamon flower oil, oil of cardamom, binallyl acetate, cinnamaldehyde, safrole, carvone and cis/trans citral. Used in human and veterinary medicine in daily doses of 0.1-10mg/kg (pref. 0.5-2 mg/kg) and in the food industry for protecting cultures of microorganisms against viral attack by use of 0.1-100 mg of terpenes per kg of food material; at this level the organoleptic properties of the foodstuff are not affected e. g. the terpenes are used to protect lactic acid, streptococci in dairy product cultures and Saccaromyces cerevisiae yeasts in beer fermentation. Tests against Adero type 6-virus are described. 24. 1. 79 as 873695 (15pp395)

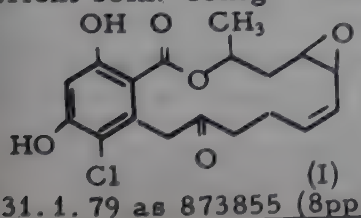
GRAC ★ D16 40690B/22 ★BE -873-855

Fermentative prodn. of monordene - by cultivating Diheterospora chlamydosporia in a liq. medium

GRACE W R CO 01.02.78-US-874207

B02 C02 (16.05.79) C07d C12d

Prodn. of monordene of formula (I) comprises cultivation of Diheterospora chlamydosporia, or its mutants in a nutrient soln. contg. C and N sources, and inorganic salts. Pref. cultivation is at 20-35°C for 2-15 days, then (I) is recovered by solvent extraction.



(I)

31. 1. 79 as 873855 (8pp1251)

ARMA- ★ D16 40707B/22 ★CA 1054-05

Partial anaerobic culture of Mycobacteria - to afford separat phenotypes 1,2 and 3

INS ARMAND-FRAPPIER 27.05.75-CA-227847

A92 B04 (08.05.79) C12k-01/04

Process for culturing Mycobacteria (I) under partial anae-bic conditions is claimed. Glass or plastic culture bottl are partially filled with Sauton's, Long's, Proskauer and Beck's, or Middlebrook's medium, closed with a plastic 'Bakelite' (RTM) screwcap, and then incubated on their flat side at 37.5°C for 14-21 days/pH 4.5-8.5. Resulting surface bacterial pellicles consist of a mixt. of smooth, filamentous, and rough bacterial islets (Phenotypes 1, 2 and 3 respectively), and the Phenotypes 1, 2 and 3 are se arately subcultured on fresh media to afford the pure Phe-otypes 1, 2 and 3.

Process allows mycobacteria to be cultured to produc separate Phenotypes. Phenotype 1 enhances, and Phenoty 3 inhibits the early development of s.c. transplants of Ehrlich carcinoma in mice. 27. 5. 75 as 227847 (22pp)

HOFF D16 43997S/26 =DS 2061-1

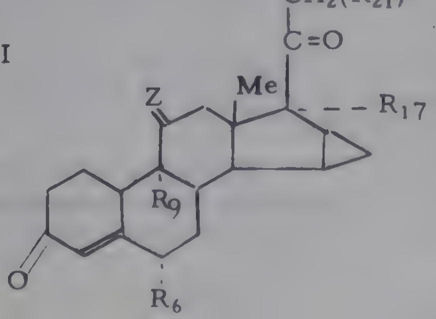
Antiinflammatory pregnene-diones

HOFFMANN-LA ROCHE AG 17.12.69-CH-018831

*B01 (23.05.79) *DT2061-183 +A61k-31/57 C07j-05*

15, 16β-Prepnane derivs. of formula I and their 1,2-enes are new. In I, R_6 and R_9 are each H, F, Br or Cl; R_{17} and R_{21} are each OH or acyloxy; and Z is O or β-HOCH=

I



Prepn. of derivs. I comprises microbiological 11-hydroxylation of the pa rent steroid derivs; corr sp. 9, 11-enes are reacte with HOCl or HOBr; the 9, 11-epoxides are treate with F_2, Cl_2 or Br_2; the 3(4), 5(6)-dienes are trea the hydroxy cpds. are acylated; the acylates are hydrolysed; the 5-ols are dehydrated; the 11-ones are reduced; the 11-ols are oxidised; the 17(20)-enes are oxidised to the 17-ol-20-ones; or halogen is cleaved from the 5,6-dihalides.

The prods. have hormone activity and are used as endocrinic (esp. antiinflammatory) agents. 11.12.70 as 061183 (7pp047)

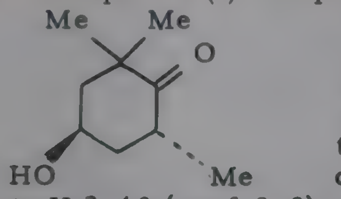
HOFF D16 19148X/11 =DS 2537-060

Optically active 4-hydroxy-2,2,6-trimethyl cyclohexanone - prepd by fermentative hydrogenation of ketoisophorone and chemical redn of the prod

HOFFMANN-LA ROCHE AG 01.11.74-CH-014674 (21.08.74-CH-011434)

*B05 C03 (23.05.79) *DT2537-060 C07c-49/42 C07c-175*

(4R,6R)-4-hydroxy-2,2,6-trimethylcyclohexanone of formula I is new. Prepn. of (I) comprises propagation of a wide range of microorganisms (esp. Saccharomyces cerevisiae) in the presence of 2,2,6-trimethylcyclohexa-5-ene-1,4-dione (ketoisophorone), in aq. media at pH 2-10 (pref. 3-8) and temps. 15-35° under aerobiconditions; the resulting 1,4-dione is isolated and reduced with a trialkyl-aluminium, alkali borohydride or H_2/Raney Ni in an inert solvent.



(I) cm intermediate for artically active carotenoid 20.8.75 as 537060 (18pp047)

WORT- D16 90421Y/51 =DS 2708-653

Biochemical sewage treatment tank - with perforated central inlet and toroidal outlet above aerated side stream nozzle

WORTHINGTON PUMP IN 07.07.76-IT-025091

*P41 (23.05.79) *DT2708-653 B03b-09/06 C02c-01/02 +B01f-05*

A plant for the treatment of waste which can be pumped, e.g. the biochemical processing of sewage, consists of an enclosed mixing chamber with a vertical perforated inlet pipe in the centre. An annular tubular collector with perforations is used to extract a side stream by a pump and re-inject it at the bottom centre through a nozzle. The latter has a wide angle and diverts the fluid towards the walls. An additive is injected upstream of the nozzle.

This greatly reduces the necessary retention time for the sewage. 28.2.77 as 708653 (6pp39)

SNAM D16 45864A/26 =DS 2757-877

Methanol-utilising Candida strain - useful for mfr. of conc. protein sources for human and animal nutrition

SNAMPROGETTI SPA 23.12.76-IT-030798

*C03 H04 (D13) (23.05.79) *BE-862-291 C12b-01*

Prodn. of nutrients with high protein content comprises propagation of Candida species in the presence of mineral salts and MeOH as the sole C source, at pH 2.5-6.5 and temps. 20-35°C. A pref. microorganism is C.NRRL-Y 11062.

The prods. are used as nutrients and in animal fodder. 23.12.77 as 757877 (4pp047)

HOLK ★ D16 40766B/22 ★DT 2751-733

Double seat valve for use in beverage industry - has independent disc actuators for all round cleaning

HOLSTEIN & KAPPERT MASC 19.11.77-DT-751733

Q66 (23.05.79) C12l-11 F16k-25

A double-seat valve with a leakage control for use in the beverage industry has on the upper valve disc two actuators, one to move it down with the second disc and one to move it up. The second disc has an independent actuator to move it up. A cleaning soln., pipe terminates between the two discs.

This facilitates a simple and reliable cleaning of all parts, including the outer faces of both valve discs and the seats. 19.11.77 as 751733 (8pp39)

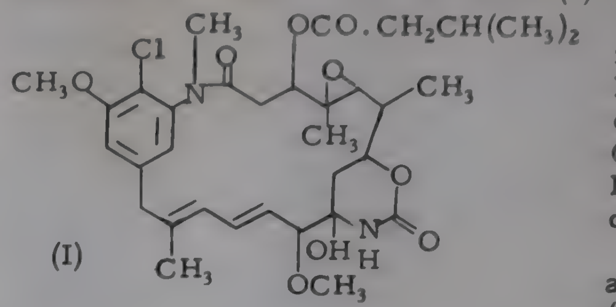
TAKE ★ D16 40871B/22 ★DT 2849-666

Macrocyclic antibiotic C-15003 P-4 - prepd. by fermenting Nocardia on leucine contg. medium, useful as antimicrobial and cytostatic agent

TAKEDA CHEMICAL IND KK 18.11.77-JA-139384

B02 C02 (23.05.79) C07d-498/14 C12d-09/22

Antibiotic C-15003 P-4 of formula (I) is new.



It is prepd. by menting a suita Nocardia speci on a medium co C and N source leucine (or its deriv.) as addit

(I) is effectiv against protozoa (phytopathogenic fungi, but not against bacteria. It also has cytostatic a ivity e.g. against murine leukaemia P-388. In mice th intraperitoneal LD_{50} is >0.313 mg./kg. Addition of le to the culture medium increased the yield of (I) at the pense of other components of the C-15003 antibiotic co plex. 16.11.78 as 849666 (36pp1251)

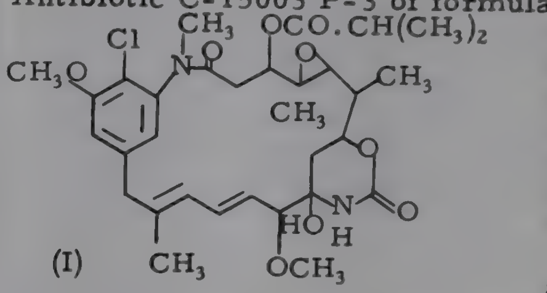
TAKE ★ D16 40873B/22 ★DT 284

Macrocyclic antibiotic C-15003 P-3 - prepd. by fermenting Noca useful as antimicrobial and cytostatic agent

TAKEDA CHEMICAL IND KK 18.11.77-JA-139385

B02 C02 (23.05.79) C07d-498/14 C12d-09/22

Antibiotic C-15003 P-3 of formula (I) is new.



It is prepd. by cultiv ing a suitable Nocard species on a medium contg. C and N sourc and, as additive, vali isobutyric acid or the derivs.

(I) is effective against protozoa and (phytopathogenic) fungi, but not bacteria. It also has cy static activity, e.g. against murine leukaemia P-388. T intraperitoneal LD_{50} in mice is >0.313 mg./kg. Additi of valine etc. increases the yield of (I) at the expense o other components of the C-15003 antibiotic complex. 16.11.78 as 849696 (36pp1251)

VTOP/ ★ D16 40908B/22 ★DT 2850-

Mushroom harvesting machine - with reciprocating blade flights on endless over head belt

VAN DEN TOP H 21.11.77-NL-012814

P12 P13 (23.05.79) A01d-46 A01g-01/04

A harvesting machine for champignons in beds consists a reciprocating blade with a horizontal cutting edge, foll ed by a raised part. An endless belt with flights revolve above the blade and sweeps the mushrooms over the edge the blade on a transverse belt conveyor.

This automates the harvesting with the minimum of damage to the mushrooms. The machine has a high outpu and saves much labour. 20.11.78 as 850317 (14pp39)

NNSH ★ D16 40914B/22 ★DT 2850-4

Hypoglycaemic piperidine deriv. moranolin prodn. - fermentation of Streptomyces strains, esp. S lavendulae sen-158

NIPPON SHINYAKU KK 21.11.77-JA-140126

B04 (23.05.79) A61k-31/44 A61k-35/74 C12d-13/02 C12k-03

In the production of the piperidine deriv. moranolin (I). moranolin-producing strain of the Streptomyces genus is cultivated in a culture medium and (I) is separated off from the culture medium. A suitable (I)-producing Streptomycete is Streptomyces lavendulae SEN-158 FERM 4301, ATCC 31434. The cultivation is carried out by con ventional methods. usually at 20-30°C. (pref. 25-27°C.) and pH 6-8 for 48-72 hrs. (I) can be isolated by the meth ods usual for the extraction and isolation of water-solubl substances.

(I) is a hypoglycaemic agent, previously isolated from white mulberry bark. 21.11.78 as 850467 (10pp280)

SAOC ★ D16 40957B/22 ★EP --2-0

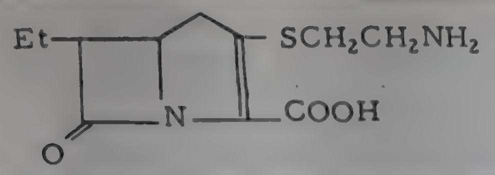
N-Des:acetyl antibiotic PS-5 - useful as broad spectrum antibacteri and beta lactamase inhibitor

SANRAKU OCEAN 17.11.77-JA-137276

B02 C02 (30.05.79) A61k-31/40 C07b-29/02 C07d-487/04

D/S: E(DT, FR, GB).

N-Desacetyl Antibiotic PS-5 of formula (I) is



(I)

) is a broad-spectrum antibacterial and a β-lacta-
e inhibitor, and it is also effective against bacterial
ins resistant to β-lactam antibiotics. (I) has much
ater activity than Antibiotic PS-5, esp. against Staph.
eus strains. Dose is 0.05-500 mg./kg. daily.
1.78 as 101384 (58pp1248).
ISR: DT2815157.

I ★ D16 41038B/22 ★FR 2401-130

neutral potassium tartrate prepn. - from tartaric acid and
ssium hydroxide soln. with alcohol addn.
NATIVELLE ETAB 23.08.77-FR-025646
306 E12 (D13) (27.04.79) C07c-51/52 C07c-59/14

potassium tartrate of formula OKOOC-CH(OH)-CH
)-COOK. $\frac{1}{2}H_2O$ is prepd. by adding about 3.5 pts. of tar-
c acid to 3 pts. of KOH in cold aq. soln., adjusting
pH to about 8.4, and then adding 9 vols. of warm
ohol/vol. of water used.
The product is used in the mfr. of yeasts, wine and
ds. The above enables an excellent degree of purity
n optimum yield. It may also be used as a medicament
tic. as a hypokalaemic, diuretic or purgative. 23.8.77.
025646 (5pp597)

P D16 75487X/40 =GB 1546-691

gle-cell protein prod. from thermophilic bacillus strains - which is
tured aerobically on oxygen-contg. cpds., giving good amino
d balance
PHILLIPS PETROLEUM CO 30.09.75-US-618191
*C03 H04 (D13) (31.05.79) *US3981-774 C12d-13/06 +C07g-07*

odn. of single cell protein comprises aerobically cul-
ring the Bacillus species NRRL B8065 or NRRL B8066
an aq. nutrient medium contg. a water-soluble oxygen-
ed hydrocarbon (I) providing a source of assimilable C,
source of assimilable N and other necessary (in)organic
owth factors, and recovering the protein from the cul-
re liquor. The culture temp. is pref. 45-65°C. Specific-
ly, (I) comprises an alcohol, ketone, ester, ether, acid
d/or aldehyde of ⩽10C, e.g. propanol, pentanoic acid,
tanol or ethanol.
Prod. is suitable for use as animal feed or, after treat-
ent to reduce the nucleic acid content, for human con-
mption. 29.9.76 as 040449. (12pp927)

RG D16 90900X/49 =GB 1546-952

ible protein recovery from plant press cakes - and grains, by
icrobiological fermentation, solubilising separated insoluble
od. and pptn. NL161176)
INST NAT RECH AGRON 12.05.75-FR-014676
*C03 (D13) (31.05.79) *DT2620-185 C07c-07*

the treatment of cakes and seeds of vegetable origin in-
olving the action of a microorganism, (i) the cakes or
eeds are subjected to the action of ⩾1 microorganism
elected from the yeasts and fungi capable of hydrolysing
e polysaccharides and toxic impurities without peptonis-
g the proteins under maceration conditions to effect di-
estion; (ii) the insoluble prods. are sepd. from the reac-
on medium; (iii) the proteins contained in the insoluble
rods. are solubilised by using an alkali, and (iv) the pro-
ein soln. obtd. is acidified to coagulate the proteins at
eir isoelectric pH. Pref. used in step (i) is e.g. Rhizo-
us Nigrieans fungus or Geotrichum condidum yeast.
The proteins obtd. are usable for human and animal
eeding. 7.5.76 as 018883. (14pp990)

MERI ★ D16 41172B/22 ★J5 4035-291

epg. pure cephamycin C antibiotic from fermentation soln. - by
iltering and treating with methylene sulphonate cation exchange
esin
MERCK & CO INC 02.06.77-US-802710
A91 B04 (15.03.79) C12d-13

A process for purifying antibiotic material is claimed
n which (a) a fermentation soln. contg. cephamycin C
adjusted to pH 1.5 -4.5 and filtered, (b) the resulting

a granular size by U.S. standard Sieve Size of No. 30 to No. 60, (c) the used column is rinsed with water or an aq. dilute flow contg. a very small amt. of Cephamycin C (d) the resulting rinsing soln. is treated with an aq. soln. contg. 10 wt.% concn. of sodium hydroxide, (e) above two solns. obtd. are mixed and the mixed soln. having a pH of 7 to 8 is treated with an elution step by means of re-circulating flow system and (f) thus, the purified, conc. cephamycin C having a pH of 5-6.5 is collected.

Steps of (a) to (f) are carried out at 0-5°C and as the cationic exchange resin, a resin of methylene-sulphonate is used. 2.6.78. as 065856 (3pp15)

EIKE- ★ D16 41283B/22 ★J5 4049-320

Fractional quantitative determn. - of glutamic acid-oxalo:acetic acid-transaminase isozyme, by absorbing SGOT human serum
EIKEN KAGAKU KK 26.09.77-JA-114743
B04 J04 R16 (18.04.79) G01n-33/16

The process comprises adding human serum to a mixt. of anti-S-GOT antibody obtd. from immunogene extraction-purified s-GOT from blood or tissue of mammals and sensitive support particles and coupling the anti-s-GOT with insol. support particles to completely absorb the s-GOT into the serum, while quantitatively determining the other isozyme of m-GOT.

The process quantitatively determines GOT isozyme by fractionation in a very simple process with the use of a reduced amt. of a serum to be tested. 26.9.77. as 114743 (3pp43)

NIPT ★ D16 41284B/22 ★J5 4049-321

Controlling beet root rot - by inoculating microorganism of Trichoderma genus into vegetable culture medium and applying to seedlings or planting area
NIPPON TENSAI SEITO KK 27.09.77-JA-115190
C03 (18.04.79) A01n-09 C12k-01

Control of root rot of beet is effected by (a) inoculating microorganism of genus Trichoderma into a vegetable culture medium such as bark, peat and residue obtd. in paper-mfr.; (b) effecting cultivation under acidic conditions; and (c) placing the obtained culture around the transplantation spot before transplantation of beet seedlings or around the beet seedlings after transplantation, at a desired width and thickness.

Prepn. of root of rot of beet controlling material comprises adding nutrient or opt. pH-adjusting agent to the vegetable culture medium to obtain a medium of pH<7.0; inoculating microorganism of genus Trichoderma; and effecting cultivation for >2 weeks.

Agent brings about healthy growth, and increases the harvest yield and quality. 27.9.77. as 115190 (4pp108)

NODA ★ D16 41307B/22 ★J5 4049-391

Prodn. of alpha-amylase I or II - which exhibits strong activity in the presence of sodium chloride soln.
NODA SANGYO KAGAKU 24.09.77-JA-113950
(18.04.79) C07g-07/02 C12d-13

Prodn. of α-amylase-I (I) and/or -II(II), comprises incubating a microorganism of genus Acinetobacter and collecting (I) and/or (II).

As (I) and (II) exhibits strong activity in the presence of 1-4% NaCl solution, they can be effectively used in the prodn. of seasoning. 24.9.77. as 113950 (9pp42)

DNIN ★ D16 41308B/22 ★J5 4049-395

Ribonucleic acid prodn. - by culturing yeast strain candida tropicalis fungi, pref. using molasses as carbon source
DAINIPPON INK CHEM KK (DNII) 27.09.77-JA-115175
B04 C03 E11 (D13) (18.04.79) C12d-13/06

RNA is produced by culturing novel yeast strain candida tropicalis C-1151 fungi of high content of ribonucleic acid in fungi body and extracting ribonucleic acid from the cultured fungi body. Pref. the culture is carried at among 27-33°C temp. at 30°C and at pH 4.6-5.0.

RNA is useful as material for seasoning 5'-nucleotide, material for pharmaceuticals or agricultural chemicals. The yeast strain having high RNA content and crude protein content is found from soil at suburbs of Kasugabe City Saitama prefecture. 27.9.77. as 115175 (6pp69)

MATU ★ D16 41457B/22 ★J5 4050-396
Long life enzymatic electrode - comprising oxidn. redn. enzyme, polymeric redox cpd. and electron collector
MATSUSHITA ELEC IND KK 28.09.77-JA-117069
A89 B04 J04 R16 R47 (20.04.79) G01n-27/30 H01m-04/06

The electrode comprises at least oxidn. redn. enzyme (e.g. glucose oxidase; GOX), redox cpd. (high polymer cpd.) which acts as electron carrier for the enzyme and electron collector. The enzyme and the redox cpd. are fixed on or near the electron collector (e.g. Pt plate).

As the enzyme and the redox cpd. fixed do not dissolve in a liquid to be determined and can be repeatedly used, the electrode has long life and high reliability. The electrode is useful for the determn. of substrate in living body liquid or for fuel cell.

The redox cpd. is e.g. condensed polymer of quinone, formaldehyde and piperazine hydrochloride. 28.9.77. as 117069 (9pp50)

MCDD D16 76631U/50 =J7 9010-632
Microorganisms identification - by optical density technique
MCDONNELL DOUGLAS CORP 22.05.72-US-255533
*R16 (08.05.79) *NL7307-158 C12k-01/10 G01n-21/22*

Process for indicating and identifying microorganisms in a simple by diluting the sample with a liq. with a selective growth medium for the organism, and measuring the relative optical density of the mixt.

The process provides a rapid method of identifying the presence of organisms such as Staphylococcus aureus (coagulase positive) Salmonella species, Pseudomonas a aeruginosa, Proteus species, Coli organisms such as Escherchia coli, Herella species, Streptococcus pyrogenes (Type A) and Candida albican. This is important e.g. for identifying organisms when dealing with a sick patient where conventional processes take many hours incubation. Suitable growth media for various organisms and an appts. for conducting the investigation starting e.g. with a swab or urine sample are given. 21.5.73 as 056671 (clg. 22.5.72-US-255533) C12k-1/10, 1/04, G01n-21/22 (8.5.79) MCDONNELL DOUGLAS CORP (17pp) (J49051998)

MITN ★ D16 41679B/22 ★J7 9010-633
Sepn. and recovery of cell bodies - by culturing methanol-assimilating microorganisms in medium, adding sodium polyacrylate adjusting pH and heating
MITSUBISHI GAS CHEM IND 18.09.73-JA-105147
A97 C03 (A14) (08.05.79) C12b-01/26

Microorganism which can assimilate methanol is cultivated in a culture medium contg. methanol, and to the culture broth is added sodium polyacrylate, pH value is adjusted to <4.5 and then heated at >50° C. 18.9.73 as 105147 C12b-1/26 MITSUBISHI GAS CHEM IND (3pp22) (J50053580)

AGEN D16 27132X/15 =J7 9010-634
Adsorption and desorption of lipid decomposing enzymes - on insoluble carrier contg aromatic or heterocyclic compd and using organic solvent or surfactant
AGENCY OF IND SCI TECH 10.08.74-JA-091838
*B04 (08.05.79) *J51022-875 C07g-07/02 +C07g-17*

In adsorbing and desorbing a lipid decomposing enzyme on an insol carrier, an aromatic cpd. or a heterocyclic cpd. is combined with the insol. carrier as a hydrophobic residue and a lipid decomposing enzyme is adsorbed on this carrier and is desorbed by using a surface active agent or a water-miscible organic solvent or desorbed after denaturation of the protein.

Highly purified lipid decomposing enzymes having affinity to lipids and highly purified enzymes participating in lipid metabolism are important for development of research in lipid metabolism and in clinical medicine, e.g. in digestion and absorption of nutrients and blood circulation. The enzymes can also be useful as catalysts in fine chemical industries, e.g. decompsn. of oils and fats, ester interchange and ester synthesis. 10.8.74 as 091838 C07g-7/02, 17/00 (8.5.79) AGENCY OF IND SCI TECH (6pp) (J51022875)

NEST D16 44698U/32 =J7 9
Milk curdling enzymes prodn - by biosynthetic mean
physarum polycephalum
SOC PROD NESTLE SA 20.01.72-CH-000820
*(D13) (08.05.79) *NL7300-248 A23c-19/02 C12d-13/10*

Milk curdling enzymes are made by culturing Physa
polycephalum under aerobic conditions in an aqs. m
until considerable amts. of the enzyme have been fo
and separating the enzyme from the microorganism.
culture can be grown in surface culture on a solid su
te or in submerged culture in an aqs. medium contg.
suitable carbon and nitrogen sources.

The product is identical with rennin produced fro
calves stomachs, and is useful in processes requiri
coagulation of milk, e.g. cheese prodn. 19.1.73 as 0
(clg. 20.1.72-CH-000820) C12d-13/10, A 23c-19/02
(8.5.79) SOC DES PRODUITS NESTILE SA (4pp)(J48

TANA D16 29447W/18 =J7 90
Purer L-malic acid prodn - using a fumarase-forming microorg
immobilised in an acrylic matrix
TANABE PHARMACEUTICAL KK 22.10.73-JA-118832
*A97 E17 (08.05.79) *DT2450-137 C12d-01/02 C12d*
+C12k-01

L-malic acid is produced using a fumarase-forming
oorganism (I) by polymerising an acryloyl monomer
aqs. suspension of (I) to immobilise it has then subje
the prod. to reaction with fumarase. Formation of si
prods. (e.g. succinic acid) is avoided, the microorga
retains high fumarase activity over an extended perio
the reaction prod. does not need further purifcn. and
is re-usable.

(I) includes Brevibacterium ammoniagenes IAM 1
(ATCC 6871) and IAM 1645 (ATCC 6872), Corynebacte
equi IAM 1038, E. coli ATCC 11303, Microbacterium
flavum IAM 1642, Proteus vulgaris IFO 3045 and Pich
farinosa IFO 0574 are used in amts. of 0.1-5, pref.
g per g acryloyl. 22.10.73 as 118832 C12d-1/02, 13/1
C12k-1/00 (8.5.79) TANABE PHARMACEUTICAL KK
(5pp) (J50069289)

SNAM D16 84010V/48 #J7 901
Enzymic L-malic acid prepn - from salt of fumaric acid w
fumarase-contg. fibrous structure
SNAMPROGETTI SPA 30.03.73-IT-022337 (28.05.74-JA-0594
*E17 (08.05.79) *SW7404-302 C12d-01/02 C12d-13/10*

L-malic acid is prepd. enzymatically by contacting a
fumaric acid salt soln. with a fibrous structure contg.
fumarase. 28.5.74 as 059400 C12d-1/02, 13/10-(8.5.7
SNAM PROGETTI SPA (4pp) (J50155681)

ELIL D16 29579F/00 #J7 901
Tenebrimycins antibiotics from strep tenebrarius
ELI LILLY & CO 20.04.67-BE-697319 (00.00.72-JA-050302)
*B04 (08.05.79) *BE-697-319 C12d-09/14*

KYOW D16 64691W/39 =J7 9010
Fermentative production of guanine nucleotide - by cultivatio
Brevibacterium or Corynebacterium on guanine-contg. medium
KYOWA FERMENTATION KK 03.09.73-JA-098248
*A97 (08.05.79) *J50048-193 +C12d-13*

ppGpp and/or pppGpp were produced from guanine, gua
osine, pG, ppG, or pppG by Brevibacterium or Coryne
terium cultured on a guanine contg. medium opt. with a
detergent.

In an example, B. ammoniagenes ATCC 21,170 was
cultured at 30° on a medium (pH 7.6) contg. starch hyd
ysate 15 (as glucose), urea 0.2, NH_4Cl 0.3, KH_2PO_4
1.0 K_2HPO_4 1.0. $MgSO_4$ $7H_2O$ 1.0. corn steep liquor
1.0, and peptone 0.2% plus $MnCi_2$, $4H_2O$ 5mg/l. After
48 hrs cultivation, ppG and polyoxyethylene stearylami
were added at 10 and 3 mg./ml., resp. and the broth
was further cultured for 48 hrs. Prodns. of ppGpp and
pppGpp were 2.6, and 2.4 mg/ml., resp. They were
adsorbed on an active C eluting with NH_4OH-EtOH, conc
and fractionated by Dowex-1 (Cl^-) and DEAE- Spehadex
column chormatography. 3.9.73 as 098248 C12d-13/00
(8.5.79) KYOWA FERMENTATION KK (4pp) (J50048193

D16 85017W/52 =NL-160-332
mycin antibiotics - prepd by culturing Actinoplanes dinensis ATCC 31049) or liguriae (ATCC 31048)
RUPPO LEPETIT SPA 27.07.74-GB-033283
*4 (15.05.79) *BE-831-743 C12d-09/14*

w antibiotic (I) is prepd. by culturing Actinoplanes adinensis (nov. sp.) of Actinoplanes liguriae (nov. under aerobic conditions in aq. medium. (I) has m. pt. C, mol. wt. 2005-2168 and iso-electric point 4.2.) is active in vitro against esp. Gram positive bacter- ich as Staph. aureus, Micrococcus flavus, Streptoco- etc. It has also a strong in vivo activity against Di- occus and Streptococci. It may be used as an antibiot- gainst bacterial infections. 24.7.75 as 008828 (10pp279)

/ ★ D16 41752B/22 ★SU-212-948
juice de-sulphitation - includes thermal treatment using sonic vibrations, to improve storability
IKHAILOV I P 04.11.65-SU-036346
013) (11.12.77) C12h-01

it juice desulphitation includes thermal decomposition ulphurous acid and sulphur dioxide removal, using asonic vibrations. The process is accelerated if the ulphitation is conducted at 60-20°C using continuous cess comprising passing liquid as 3mm layer over asonic wave generating plates in a cascade assembly. hailov, I.P., Bukanov, L.D., Matasova, N.N. et al. . 41/5.11.76. 4.11.65. as 036346 (2pp938)

/ ★ D16 41753B/22 ★SU-233-165
orophyll-carotene paste prodn. - involves freezing fragmented en algae, warming and extracting with water, acetone and er
NIKITIN V YA 26.12.67-SU-206059
304 (11.12.77) A61k-35/78

lorophyll-carotene paste is prepd. by fragmenting een algae of benthos (e.g. Cladophora), freezing the od. at (-) 180°C in liquid nitrogen, holding it at 0-12°C n extracting it with water and organic solvent. The composition of chlorophyll is prevented if after the ezing the prod. is homogenised in distilled water, od. and again homogenised at 10-15°C for 5 min. in etone. The extract is evapd. and the residue suspended ether with subsequent filtration, followed by ether re- oval by evapn. in vacuo. The prod. is viscous black- een paste.
kitin, V.Ya. Bul. 3/25.1.76. 26.12.67. as 206059 (1pp 8)

GRI= ★ D16 41786B/22 ★SU-601-309
nidia material of helminthosporium fungi - is prepd. by surface lture method in a sunflower husk based medium
AGRIC MICROBIOL RES (PLAN=) 09.11.76-SU-420726
C03 (20.04.78) C12k-01

he innovation relates to agricultural microbiology. It is sed in the prepn. for the artificial infection of plants eing tested for resistance to corresponding diseases. condidial material of Helminthosporium genus fungi is roduced by the surface cultivation method in a relatively w value medium prepd. from sunflower husks. The ethod is simple and no special equipment for the mass rodn. is required. Materials used are readily available nd cheap. Apart from starch, no other nutritional ingre- ients are required. The yield of condidia is high (15- 5% expressed on the total wt. of the prepn.) and the dry aterial retains its viability and virulence for a long me under normal storage conditions at room temp.

The nutrient medium is prepd. by grinding air-dried unflower husks, adding 2-2.5% ammonia soln. auto- laving (30 mins. 1 atmos), washing with water until pH f the washings is 7.0-7.5, air-drying, adding a soln. ontg. Capek mineral medium with added 0.4-0.6% tarch, The latter inhibits the growth of the fungi but promotes the growth of the condidia.
Khotyanovich, A.V., Vedeneeva, N.A. Popov, V.I. Bul 3/5.4.78. 9.11.76. as 420726 (2pp48)

ABMI= ★ D16 41794B/22 ★SU-608-332
Yeast biomass rich in carotenoid(s) - is prepd. by cultivating Sporobolomyces pararoseus yeasts using peat oxidate as carbon source
AS BELO MICROBIOL (ABPE=) 17.01.77-SU-445146
(18.12.78) C12b-03/12 C12c-11/08

The innovation relates to microbiology and describes a modified prepn. of a yeast biomass enriched with carotenoids. The modification features use of peat oxidate as the carbon source in cultivation of Sporobolomyces pararoseus T yeasts. This offers the advantage of increasing the amt. of carotenoids in the yeast biomass. Koroleva, I.F., Gurinovich, E.S., Zalashko, M.V. et al. Bul. 46/15.12.78. 17.1.77. as 445146 (2pp48)

PAVL= ★ D16 41799B/22 ★SU-612-956
Organoleptic aperitif compsn. - additionally contains ash tree black berries, cherries, bird cherries, matricaria blossoms and coriander seeds
PAVLODAR WINE WATER 29.07.75-SU-178535
(15.06.78) C12g-03/06

The known compsn. including bitter almond (I) and an aq. alcoholic liq. (II), used for the prepn. of aperitif has been modified. The modification features incorporation of the additional ingredients: ash tree black berries (III), cherries, (IV), bird-cherries (V), wild chamomile, matricaria blossoms (VI), corianders seeds (VII). The so modified compsn. contains the above mentioned ingredients inthe following amts. (kg./1000 dal.): (III) 637-657, (IV) 517-527, (I) 2.33-2.63, (V) 3.15, -3.85, (VI) 3.15-3.85, (VII) 3.15-3.85, (II)-balance.

This compsn. is used for the prepn. of "Irtysh" aperitif possessing enhanced organoleptic properties, a refreshing taste and a complex aroma of fruits and herbs. Antonova, V.I., Stepanovichene, V.S. Bul. 24/30.6.78. 29.7.75. as 178535 (2pp48)

DSOH- D16 94585X/51 =SU-616-276
Mycelium culture growth of polyporus species - on carbohydrate nutrient medium enriched with nitrogen and phosphorus
DSO HRANMASCH 22.05.75-BG-030055
*+P13 (D13) (28.09.78) *DT2621-876 C12d-13/06*

Mycelium of the fungus species polyporous squamosus is grown on a submerged nutrient medium which has been enriched in nitrogen and phosphorus. The growth proceeds at a temp. of 22-50°C, a pH value of 4.5-7.5 and an air supply per minute of 0.6-1.2 m^3 per m^3 of nutrient medium. This is a continuous process for the cultivation of fungus mycelium with a high albumen content and high nutritive value for use in food prods.
Torev, A.K., Bul. 27/25.7.78. 14.5.76. as 357452 (7pp)

SANO D16 50924W/31 =SU-616-997
Extn. of immunogens hemagglutine and neuraminase - by treating influenza virus with cationic surfactants also vaccines contg. the immunogens
SANDOZ AG 14.01.74-CH-000447
*B04 (20.06.78) *BE-824-372 A61k-35/76*

Haemagglutinin (I) and neuraminidase (II) are extracted from influenza virus by treating the virus in an aq. medium with a cationic surfactant to solubilise the proteins and sepg. the soln. from the subvirus residue. Influenza vaccines comprise a mixture of (I) and (II) in an inert diluent.

(I) and (II) are sepd. completely from non-essential virus components. No further purificn. is required before use in vaccines.

Virus types A, A_1, A_2 or B (esp. A2/Aichi/68, MRC-2, MRC-11, A/pasteur/30C or B/Mass/67) are pref. used and the cationic surfactant is pref. a myristyl trimethylammonium, cetyltrimethylammonium, stearyldimethylbenzylammonium, cetylpyridinium salt, benzalkonium or decamethonium chloride or bromide. The viral concentrate is pref. treated with HCHO before addition of the surfactant and ratio of surfactant used to protein is 1:2 to 1:10. Solubilisation is effected at 4-37°C for 30 mins to 16 hrs.
Bachmeier, H. Smidt, H. Bul. 27/25.7.78. 14.1.75. as 101722 (3pp)

TORD/ ★ D16 42100B/22 ★SU-617-512
Electrochemical reinforcement of ground for building industry - using aq. resorcinol and fermentation waste soln. then aq. formaldehyde at anode and aq. sodium bi:chromate soln. at cathode
TORDUA S V 29.10.76-SU-415329
A93 L02 Q41 Q42 (05.07.78) E01c-07/36 E02d-03/14

The reinforced ground used for construction of industrial military structures or building is obtd. by injecting through electrodes aq. reinforcing solns. The strength and the water-impermeability of the ground are increased if 5-8% aq. resorcinol soln. and 10-15% aq. soln. of sulphite-alcoholic fermentation waste concentrate (1:0.8-1.2 ratio) are injected through the anode-injector followed by the 15-20% aq. formaldehyde soln. Also, 2-3% aq. sodium bicromate soln. is injected into the ground through a cathode injector.

A sample of reinforced ground remained intact after holding it in water for 6 months.
Tordua, S.V., Miklashevskii, N.V., Rubtsov, Yu.I. et al. Bul. 28/30.7.78. 29.10.76. as 415329 (2pp938)

UPRI- ★ D16 42171B/22 ★US 4154-161
Side-loading pulp press - for sepg. solid and liq. components in pulp, by squeezing the liq. out using a ram
UP-RIGHT INC 03.10.77-US-838896
P71 (15.05.79) B30b-03/04 B30b-09/06

A press comprises an apertured press box which opens on a side parallel to its axis to admit the product to be pressed. After closing of the press box a ram is forced axially through the press box to compress the material and squeeze the liq. therefrom.

A restricted opening is then formed at the end of the press box and the material in the cylinder is extruded through it. 3.10.77 as 838896 (14pp)

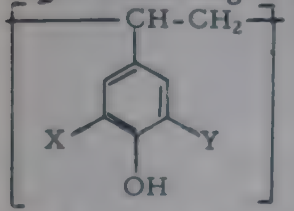
OLYU D16 00349Y/01 =US 4154-652
Living tissue cultivation - in gastight box with minicomputer controlling temp., moisture, gas and nutrient solution
OLYMPUS OPTICAL KK 20.06.75-JA-076256
*B04 (15.05.79) *DT2626-733 C12k-09 +C12k-01/10*

Living tissues or cells can be grown continuously and automatically in combination with a nutrient soln. in a cultivation tank with a gastight enclosure. The condition of the matter in the tank and the growth conditions and pH are controlled.

The method unifies, standardises and automates the growth of tissues and cells and also eliminates contamination by airborn bacteria. It is suitable for large scale prodn. of vaccines. 10.6.76 as 694643 (6pp974)

AGEN D16 35591A/20 =US 4154-653
Lowering mol. wt. of hydroxy-styrene polymers - by decomposing in culture of Moraxella bacteria, using polymer as carbon source
AGENCY OF IND SCI TECH 17.09.76-JA-111588
*A13 (A35) (15.05.79) *J53036-593 +C12d-13/02*

Degradation of hydroxystyrene polymers comprises culturing bacteria of Moraxella genus or fungi of Penicillium genus on a medium contg. a hydroxystyrene polymer having a recurring structural unit of formula (I) (where X and Y each is H or alkoxy) as carbon source.


(I)

Pref. $X=Y=H$; $X=H$ and $Y=OCH_3$ or $X=Y=OCH_3$.
19.9.77 as 834705 (5pp)

RHON D16 65293Y/37 =US 4154-654
Polysaccharide prepn. by carbohydrate fermentation - esp. using xanthomonas microorganisms in fermentation medium contg. ammonium phosphate as only nitrogen source
RHONE-POULENC INDUSTRIES 26.02.76-FR-005933
*A11 H01 (15.05.79) *DT2708-239 C12d-13/04*

Polysaccharides are prepd. by fermenting a glucide with a Xanthomonas microorganism. Process consists of (a) preparing an inoculum from a medium comprising a Xanthomonas microorganism, (b) inoculating into a medium comprising a glucide and an assimilable N source of ammonium phosphate, (c) fermenting to give the polysaccharide and (d) isolating and recovering this.

The ammonium phosphate, pref. diammonium pho
is the sole N source. The microorganism is pref. X ca
pestris. 23.2.77 as 771361 (5pp974)

AMST- D16 09110Y/05 =US 41
Penicillin fermentation media giving high yields economi
with high ash sucrose syrup as carbohydrate source
AMSTAR CORP 29.09.75-US-617369 (03.07.74-US-485730)
*B02 (15.05.79) *US4003-791 C12d-09/04*

Cephalosporin C is produced by growing a suitable m
organism in a culture medium in the presence of an a
amt. of a high ash contg. sucrose syrup. The addn. i
4-8% w/v. in the medium. The syrup contains, on a s
basis, 40-85wt. % sucrose, 8-35wt. % invert sugar an
3-25 wt. % ash.

The additive is also disclosed as being useful in th
prodn. of other substances esp. penicillin, by fermen
28.10.76 as 736486 Div ex 4003791 (+29.9.75-US-61
(8pp974)

KNOL D16 68820Y/39 =US 41
Compsns. contg. fibrinogenase and soluble polysaccharide
enhanced enzymatic activity, for diagnosis or treating circu
disorders
KNOLL AG 10.04.76-DT-615844
*B04 +R16 (15.05.79) *BE-852-758 C07g-07/02 G01n-*
G01n-33/16 +A61k-35/58

The fibrinogen content of a physiological liq. is deter
mined by (i) mixing 1 pt. of the liq. with about 1 pt. o
soln. of a fibrinogenase from viper venom and suffici
water-soluble dextran to give the soln. an activity of
units enzyme per ml., (ii) pemitting turbidity to devel
and (iii) comparing the final turbidity with that of a re
ence standard.

The novel enzyme system makes possible the treat
of peripheral blood circulation disturbances with only
small amts. of enzyme. 21.3.77 as 779584 (3pp974)

KERJ D16 60575W/37 =US 415
Increasing permeability of cell walls - by exposure of cel
suspension in physiological electrolyte solutions to an electric fi
KERNFORSCHUNGS JULICH 02.02.74-DT-405119
*+R16 (15.05.79) *DT2405-119 G01n-27/40*

Device for increasing the permeability of the skin of c
of living beings is described, in which the cells are int
duced in the form of a suspension into an electrocondu
liq. to form a physiological electrolyte soln. which is
passed into one of two chambers through a passage of a
partition. The partition separates a container into thes
two chambers, each chamber having an electrode.

The passage surrounds the focus of an electric field
The cells in the electrolyte are exposed to the electric
field while passing from one chamber to the other unti
macromolecules having a radius of ≥5° are exchanged
through the cell skin between the soln. in the interior o
the cells and the electrolyte soln. 15.12.76 as 750677
(7pp924)

STEI- D16 24160B/13 =US 4154-
Hop treatment and humulone stabilisation for brewing - compr
isomerisation using metal oxide, isomer reduction using m
hydride and opt. pelletising
STEINER S S INC 08.09.77-US-831479 (01.02.77-US-764600)
*(15.05.79) *DT2833-588 +C07c-45 C07c-49 C12c-09/02*

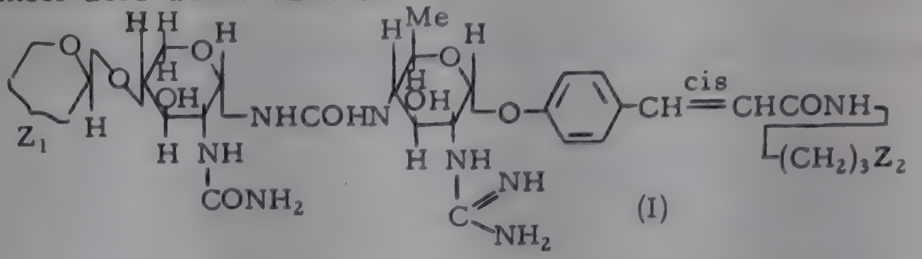
Hops are processed in a manner which tends to stabilis
the hops contg. humulone of alpha acid constituents aga
deterioration and light sensitivity.

Hops powder or concentrate is treated so that a sub
-tial portion of alpha acid content is converted to isome
sed alpha acid. Persultant prod. is contacted with meta
hydride cpd. under suitable chemical conditions to
chemically reduce a substantial portion of isomerised a
the metal of the hydride being mono- or divalent and su
able for use in foods. The mixt. of hops powder or conc
-trate and metallic hydride is maintained under suitabl
reaction conditions to obtain increased stability in hops
alpha acids and end prod.

Process is esp. used in pelletising operations for ho
using conventional equipment. 8.9.77 as 831479 C.i.p.
4123561 (6pp931)

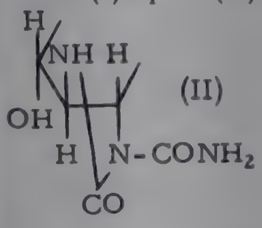
D16 85369X/46 =US 4154-917
polar copolymers having ion exchange capacity -
ing polar and non-polar mono- and multi- ethylenic
er units (BE031176)
HI CHEMICAL IND KK 09.06.75-JA-069362 (01.05.75-JA-
11)
*B04 (A91) (15.05.79) *DT2618-481 C08j-05/10*
r, porous polymer is prepd. by polymerising a mono
mixts. of (I) 2-98 wt. % cross-linkable monomer(s)
H_2=C= gps. and (II) 98-2 wt. % of ⩾1 of copolymeris
monoethylenically unsatd. monomers and conjugated
monomer, (15-100 wt. % of (I) and (II) being polar),
presence of a mixed organic liq. which does not rea
with (I) and (II) and consists of ⩾1 liq. which dissol-
l the homopolymers of (I) and (II) and 1 liq. which
not dissolve any of these homopolymers. This liq.
is used in an amt. (D wt. % of (I) and (II)) represented
$\sqrt{X} \leqslant D \leqslant 150\sqrt{X}$ (where X is the wt. % of (I) based on
l (II)).
e prod. has polar gps., an av. pore dia. of 40A, a
pore vol. and high mechanical strength. 27.2.78 as
4 Div ex 4093570 (+14.4.76-US-677120) (+10.5.75,
5-JA-055238,069361) (11pp976)

★ D16 42377B/22 ★US 4154-925
ated cis-BM 123 gamma-1 and gamma-2 derivs. - useful as
acterials esp. effective against Escherichia coli in vivo
MERICAN CYANAMID CO 19.01.77-US-760599 (18.03.76-US-
8017)
3 (15.05.79) C07h-13/12
lated cis-BM 123 γ_1 and γ_2 derivs of formula (I) and their acid-addn. salts are new:

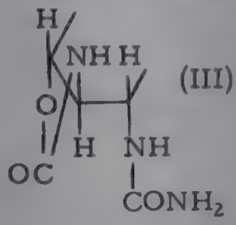


(I)

In (I) Z_1 is (II) or (III); Z_2 is $NH(CH_2)_4NHCH_2R_1$, $NH(CH_2)_4N(CH_2R_1)_2$, $N(CH_2R_1)(CH_2)_4NHCH_2R_1$, $N(CH_2R_1)(CH_2)_4N(CH_2R_1)_2$ or $NH(CH_2)_4NHCHR_2R_3$; R_1 is H, 1-8C alkyl, 2-8C alkenyl or $PhCH_2$; R_2 is 1-3C alkyl: R_3 is 1-8C alkyl, N, N-di-(1-4C)alkylamino (1-4C) alkyl (1-4C)chloroalkyl, Ph, $PhCH_2$, β-phenethyl, 2-8C alkenyl or 1-4C hydroxyalkyl; or R_2 and R_3 complete cyclobutyl, cyclopentyl, monomethylcyclopentyl, dimethylcyclopentyl, trimethylcyclopentyl, cyclohexyl, monomethylcyclohexyl, dimethylcyclohexyl, trimethylcyclohexyl, cycloheptyl or $CH_2CH_2NR_4$-CH_2CH_2; and R_4 is H, 1-4C alkyl, Ph or $PhCH_2$.



(II)



(III)

(I) are antibacterials, esp. effective against E. coli in vivo. 19.1.77 as 760599 (15pp1248)

See Also

D13 DS 2552638	D13 NL 160270	D13 J5 4049354
D13 SU 617036	D13 SU 617473	D13 US 4154726
D22 DT 2751778		

D17: SUGAR; STARCH

D17 01872T/02 =DS 2130-994
ulose and aldonic acids - from sirup contg laevulose and aldose
elective aldose oxidation and electrodialysis
PC INTERNATIONAL INC 26.06.70-US-052081
*13 (D13) (23.05.79) *DT2130-994 +C13k-13*
rup contg. laevulose is obtd. from a syrup contg lae-
se and aldose. The aldose is oxidised selectively to
corresp. aldonic acid (metal salt) which are then sepd.
n the laevulose syrup by electrodialysis. The laevul-
syrup is further purified by ion exchange treatment
may be used as sweetener.
The aldonic acid or metal salt are recovered and may
ised in the textile industry and in the medical field.
.71 as 130994 (5pp068)

F- ★ D17 40758B/22 ★DT 2751-562
ar beet roller grizzly - with hammer head scrapers revolving in
s of discs
GEBR BUTFERING MAS 18.11.77-DT-751562
P12 P43 (23.05.79) A01d-33/08 B07b-01/14
oller grizzly for the cleaning of sugar beet consists of
eral parallel shafts with rotating discs which inter-
sh. To remove adhering soil and leaves, hexagon
fts are arranged under the disc shafts. They carry
aning scrapers which enter into the gap between the
cs.
This keeps the roller grizzly operational, independent
whether the sugar beet was harvested from stony or
my fields. 18.11.77 as 751562 (17pp39)

BO ★ D17 40906B/22 ★DT 2850-247
ucose polymer mixed soln. - with high calorie content suitable for
ravenous feeding
ABBOTT LABORATORIES 21.11.77-US-853366
A96 B04 (23.05.79) A61k-31/70 C07h-03/06 C08b-37 C13k-13
clear, pyrogen-free, stable, and sterile soln. for intra-
nous admin. to humans contains ⩾20 (pref. 20-50) w/v.
glucose polymer mixt. (A) of mean degree of polymerisa-
on (DP) >4. At least 99% of the molecules have <26 glu-

units. Pref. the soln. is isotonic with human blood and may also include amino acids (3.5-10 w/v%); a lipid or lipoid emulsion (up to 20 w/v%), vitamins and electrolytes.

Solns. have high calorie content and can be administered through a peripheral vein, e.g. to diabetes patients. The pref. rate of infusion is <5 mg. per min. per kg. 20.11.78 as 850247 (24pp1251)

FISC/ ★ D17 40962B/22 ★EP ---2-070
Absorbents for oil comprising cellulosic fibres - esp. de-sugared bagasse fibres
FISCHER K O P 23.10.78-US-954001 (22.11.77-GB-048491)
H03 J01 (H06) (30.05.79) C02b-09/02 C09k-03/32 D21c-05
D/S: E(BE, DT, FR, GB, LU, NL, SW).

Absorbents capable of absorbing 15-27 times their own wt. of oil comprise 0-5 wt.% water and 95-100 wt.% oleophilic, hydrophobic cellulosic fibres (esp. bagasse fibres contg. <0.2% sugar).

The absorbents can be produced cheaply from a readily available waste material (bagasse). They can be used to mop up oil spills on water or dry land, and the oil-satd. material can be burned as a fuel.

21.11.78 as 101423 (23pp367).
(E) ISR: J51005289; US3216886; US3620911.

FIVE ★ D17 41021B/22 ★FR 2400-939
Compact gravity settlement clarifier partic. for sugar juice - uses annular baffle elements providing zigzag decanting passages
FIVES-CAIL BABCOCK 23.08.77-FR-025648
(27.04.79) B01d-21/ C13d-03*

The clarifier comprises a vertical, cylindrical vessel with a tangential inlet at the top into a foam degassing chamber. The chamber has a downpipe extending axially to a low part of the vessel. Clarified liq. is drawn off at the top of the vessel while sludge is drained away at the bottom.

Decanting baffles take the form of annular elements fitted coaxially around the downpipe. Each element comprises a set of spaced coaxially superimposed, conical or pyramidical frusta. Inclined passages are bounded by sloping faces of adjacent frusta.

Passages in adjacent elements are pref. inclined in opposite directions, i.e. by inversion of every other element w.r.t. its neighbour. The outlet end at the bottom of the downpipe is pref. divergent, e.g. bellmouthed. A rotary, sludge-collecting scraper is pref. fitted below the downpipe outlet. Provision for recycling part of the drained sludge is pref. provided, returning into the unclarified liq. inlet into the foam chamber.

Used in clarifying liqs., partic. juice in sugar refineries. Simplicity and economy of construction combined with a high ratio of throughput capacity to installation space requirement are provided. 23.8.77. as 025648 (9pp448)

GENO ★ D17 41100B/22 ★GB 2008-137

Continuous starch gelatinisation process - with use of steam and Venturi mixing effect to give prod. without slurry formation

GENERAL FOODS CORP 07.11.77-CA-290374
(31.05.79) C13l-01/08

Starch-contg. material is continuously gelatinised by feeding it with steam into a mixing chamber. They are mixed by using a Venturi effect to cause turbulence and uniform mixing. The material reaches a temp. sufficient for gelatinisation, while the total water (steam and starch-contg. material) is sufficient to permit gelatinisation without formation of a slurry. Then gelatinised prod. is withdrawn from the mixing chamber.

Minimum amt. of equipment is necessary, and fast flow rates are possible. Materials that may be treated include raw starches, flours, animal feed meals, oil-contg. pastry mixes, etc. 31.10.78 as 042652. (5pp1248)

NIPT ★ D17 41299B/22 ★J5 4049-345

Sepg. raffinose from beet molasses - by ion-chromatographic sepn. in salt-type strong cation exchange resin, concn. of fractions and crystallisation

NIPPON TENSAI SEITO KK 28.09.77-JA-115530
E13 (18.04.79) C13k-13

A method for prodn. of raffinose (I), by (1) ion-chr
graphic sepn. of beet molasses (II) in salt-type str
cation exchange resin (III), (2) concn. of the fractio
the weight ratio of (I)/sucrose <2 and (3) crystallis
(I) in the concentrate.

(I) of high purity can crystallise effectively. The
crosslinking degree of (III) should be low and the co
of divinyl benzene in (III) should be 4-8 wt.%. Exam
of the salt adsorbed to (III) are sodium, potassium,
cium and magnesium. 28.9.77. as 115530 (5pp42)

DDSK- D17 38592A/22 =US 4

**Starch hydrolysates prepd. from wheat, barley or rye - b
fibre and pentosan(s) before hydrolysis**

DDS-KROYER A/S 24.01.77-GB-002767
*+P41 (15.05.79) *BE-863-244 C13l-01/02*

Refined starch hydrolysates are prepd. from kernel
wheat, barley or rye cereals by hydrating and softe
kernels with an aq. soln. for 5-15 hrs. at 40-60°C.

The treated kernels are genetly milled so as the
the release of pentosans from the fibres of the kerne
The fibres and attached pentosans are then separate
from wet-milled prod. to form a starch fraction and
fibre fraction. The starch fraction is then washed wit
aq. medium to remove soluble components, hydr lys
the starch f ction obtd. to form a hydrolysate, whic
refined to remove gluten.

Refined starch prod. can be refined, free of pento
23.1.78 as 871643 (4pp931)

D18: SKINS; HIDES; LEATHER; TOBACCO

RTMN D18 06770A/04 =DS 2732-097

Cigarette wrapping paper tape - is printed with gilt legends by passing adhesively printed tape to fluidised particle vessel and removing excess particles (NL 17.1.78)

ROTHMANS PALL MALL LTD 23.11.76-GB-048856 (15.07.76-GB-029592)
*F09 P42 +P15 P74 P78 (23.05.79) *DT2732-097 B05c-19 B05d-01/12 B05d-07/04 D21h-01/10*

Cigarette wrapping paper web is provided with ornamental printing using adhesive printing and deposition of metallic pulverulent material which is deposited on the adhesive areas.

Paper web is passed axially adjacent an upper region of a cylindrical housing where it is guided by a scroll plate and the metallic material is deposited by vortex action induced by a tangential inlet tube and a further tangential outlet tube. 5.7.77 as 732097 (3pp536)

PHIM ★ D18 40885B/22 ★DT 2849-904

Filter cigarette - with air vents and smaller filter area for higher resistance to draw

PHILIP MORRIS INC 18.11.77-US-853146
P15 (23.05.79) A24d-01/04

A filter cigarette is fitted with a mouthpiece contg. a filter of 30 to 90% of the total cross-sectional area of the mouthpiece. This is pref. combined with vent openings for atmospheric air.

The hollow plug of the mouthpiece which adjoins the tobacco filling is made of a material such as plastic foam. It houses a filter of 30-90% of the cross-section of the cigarette, the pref. material being cellulose acetate. Atmospheric air can enter through perforations to dilut
gas phase. The pref. resistance to draw is 3.5-8.5 i
w.g. and the gas phase dilution can be controlled fro
to 90% air.

This dilutes the gas phase and reduces the total pa
culate matter to the desired extent but recreates the d
sirable higher resistance to draw. 17.11.78 as 84990
(22pp39)

USMC ★ D18 41071B/22 ★GB 154

**Embossing press for leather workpiece - which operates cyc
high pressure followed by low pressure for predetermined peri**

BRITISH UNITED SHOE 07.06.75-GB-024554
(31.05.79) C14b-01/56

Leather workpieces are embossed by contacting with
embossing die and applying pressure to the die and wo
piece which is gradually built up during a first predete
mined period of time. The pressure is reduced at the
of the period to a predetermined value and maintained
a further predetermined time period.

The applied pressure during the first period is dete
mined according to the output of a hydraulically operat
pump. The applied pressure during the second period
regulated by a pressure regulator valve. The respect
applied pressures are in the region of 20 tons and 3 to

The higher applied pressure is only maintained for
short time and for most of the cycle the hydraulic pum
maintaining a lower pressure than that used in convent
al methods and results in the pump consuming less en
7.7.76. (10pp1044)

★ D18 41072B/22 ★GB 1546-790
ng hide and skin - with condensates of aromatic hydrocarbon
enzyl alcohol
RKSHIRE CHEMICALS 12.07.75-GB-029377
7 (31.05.79) C14c-03/18
or skin is tanned using 2-30(15-25)wt.% (based on the
ed and opt. pickled hide or skin) of a benzyl alcohol
ensate (A) at pH 1.5-7.5)(1.5-3). (A), are made by
ing 1 mole aromatic hydrocarbon, 0.1-3 moles benzyl
ol and 1-2 moles conc. H_2SO_4 at 20-160°C, then treat-
of the prod. with HCHO or its precursor under acid
itions. The final prod. may be (partially) neutralised.
tanning compsns. contg. (A) and opt. $\geqslant$1 other tanning
t are also claimed.
) are as effective as tanning agents as are convention-
nthetic phenol tannins. 22.6.76. (4pp1251)

Y ★ D18 41614B/22 ★J5 4050-700
oving gloss of e.g. fox, mink, rabbit or badger fur - by oral
in. or injection of L-3,4-di:hydroxy phenylalanine
ANKYO KK 28.09.77-JA-116416
05 C03 (20.04.79) D06m-13/22
,4-Dihydroxy phenyl alanine or its derivs. is applied
e fox, etc. through the mouth or the skin by injection.
f. its quantities are 1-100 mg/kg wt. of the fox.
metabolic inhibitor, the L-arginine, the L-cystine,
L-cysteine, the L-ornithine, or the D-phenyl alanine
be mixed into the L-3,4-dihydroxy phenyl alanine
ts deriv. according to demand. The L-α-hydrazine-
-dihydroxy-α-methyl-β-phenyl propionic acid is used
he metabolic inhibitor.
y the application of this cpd. before shearing the
utiful gloss is set on the fur of foxes, minks, rabbits,
rtens or badgers. 28.9.77. as 116416 (5pp142)

OSAS ★ D18 41674B/22 ★J7 9010-601
Hair removal from animal skin or hide - using an aq. soln. of caustic alkali, hydrogen peroxide and buffer
OSAKA SODA KK 02.05.69-JA-034164
(08.05.79) C14c-01/06

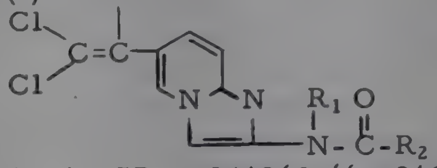
The method comprises soaking salted skin or hide in water, treating 100 pts. wt. of the soaked skin or hide with a soln. of 100-200 pts. wt. water, 2-5 pts. wt. caustic alkali, 0.3-1.5 pts. wt H_2O_2 and buffer agent to give a pH of 10-12.5 and neutralising the soln. in NH_4Cl.

The process needs a relatively short time for complete removal of hair, gives low BOD of waste water, and has no adverse effect on quality of leather. 2.5.69 as 034164 C14c-1/06 (8.5.79) OSAKA SODA KK (3pp83)

MERI D18 37528B/20 =US 4154-835
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) - useful as anthelmintics and fungicides
MERCK & CO INC 12.10.77-US-841260
*B02 C02 E13 (D13 D21) (15.05.79) *EP---1-887 A61k-31/44 C07d-471/04*

New imidazo [1,2-a] pyridines are of formula (I) and their acid addn. salts. In (I) R_1 is H or alkyl; R_2 is alkoxy or alkyl.

(I)



Cpds. (I) have a high degree of an anthelmintic activity.

12.10.77 as 841260 (6pp910)

See Also

D13 US 4154696 D13 US 4154763 D23 GB 2008115

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

ASAI- ★ D21 40915B/22 ★DT 2850-483
Cosmetic skin treatment formulation contg. an organo germanium cpd. - esp. for removing wrinkles and treating melanosis
ASAI GERMANIUM RES (POKK) 22.11.77-JA-139427
E12 (23.05.79) A61k-07/48 A61k-31/28

A cosmetic skin treatment formulation contains an organogermanium cpd. of formula $(Ge.CH_2CH_2.COOH)_2O_3$ (I), (carboxyethylgermanium sesquioxide), or its alkali metal salt. ammonium salt, amine salt or amide deriv.

The cosmetic is esp. effective in making the skin smoother, removing wrinkles, and healing melanosis. (I) is very stable compared to previous cpds. suitable for the treatment of melanosis (vitamin-C derivs., glutathione derivs. and H_2O_2). (I) is absorbed to a large extent by the skin. The cosmetic can be used for treatment of the scalp and acne. It can be used to treat disorders which lead to loss of hair, and to treat dandruff, raw skin, acne, eczema and body odour. 21.11.78 as 850483 (15pp1401)

PETE- ★ D21 40918B/22 ★DT 2850-488
Water-in-oil emulsion contg. modified montmorillonite - and partial poly:ol ester, esp. for aerosol antiperspirant formulations
PETERSON PURITAN 22.11.77-US-854062
B07 E19 G04 (23.05.79) A01n-17/02 A61k-07/32 A61k-09/12 B01f-17/54 C09k-03/30

Water-in-oil emulsion comprises water, an oily liq. and an emulsifier system consisting of (i) finely-divided montmorilonite (I) modified with sufficient $\geqslant$10C quat. ammonium cations to render it compatible with the oil; (ii) a polar organic dispersant for (I) and (iii) a partial ester (II) of a 10-20C fatty acid with a satd. aliphatic polyvalent alcohol having 3-18 OH gps. $\geqslant$2 of which are not esterified.

(I) is esp. hectorite modified by stearyldimethylbenzylammonium ions, and (II) is derived froma 16-18C fatty acid and a polyglycerine contg. 3-6 glycerine units, esp. polyglycerine-4-oleate.

Used esp. for medicaments and body-care products, esp. anti-perspirants such as Al chlorhydrate. The emulsions have good long-term stability without depositing solid and can be formulated with propellants other than chlorofluoroalkanes. 21.11.78 as 850488 (27pp1251)

TOMI/ ★ D21 40959B/22 ★EP ---2-064
Spongy prosthesis cement for dentistry and surgery - contains poly:methyl methacrylate binder, calcium carbonate blowing agent and sodium phosphate resorbant
TOMIC D 23.11.77-DT-752297
A96 P32 (A14 D22) (30.05.79) A61f-01 A61k-05
D/S: E(CH, FR, GB).

Spongy cement compsn., for surgical and therapeutic prostheses, contains a blowing agent, pref. 10-50% $CaCO_3$, 50-90% carrier and/or binder, esp. polymethyl methacrylate, and pref. also Na_2HPO_4 as resorbable material.

The compsn. may be used in dentistry, human and veterinary medicine, in plastic or solid condition, (i) for replacing and bonding bone parts and tooth roots and for fixing and incorporating implants and also (ii) as coatings on prostheses and implants, to impart foaming and/or resorbable effects.

Tissue penetration and growth in pores can be continued, to achieve optimum integration.
20.11.78 as 101410 (7pp200).
ISR: (G) DT1933917; FR2361211; DT2736447; CH165738.

MOSS/ ★ D21 40984B/22 ★EP ---2-127
Shaving compsns. contg. a cosmetically acceptable betaine - to affect hair roots for closer shaving
MOSS A 15.11.77-GB-047490
E19 (30.05.79) A61k-07/15
D/S: E(CH, DT, FR, NL).

Shaving compsns. contain a cosmetically acceptable betaine (I).

(I) has an effect on the roots of the hair so that clos shaving becomes possible. (I) have previously been use in shampoos, soaps, detergents, fabric softeners etc. because of their antistatic and anti-irritant properties, which may also contribute to their action in shaving creams.
14.11.78. as 300627 (18pp1248).
(E) ISR:- FR2229392; GB1479706; FR2208976; FR201081 US2833693.

OREA ★ D21 41043B/22 ★FR 2401-
Surface active sequenced oligomer - for use in cosmetic c pharmaceutical compsns.
L'OREAL SA 19.07.76-FR-021961
A96 B07 (B04) (27.04.79) A61k-07/13 C08g-65/08

New surface-active sequenced oligomer is of formula $P\text{-}O\text{-}[C_2H_3(CH_2B)O]_{n'}\text{-}[C_2H_3(CH_2A)O]_m\text{-}[C_2H_3(CH_2B)O]_n$ (I) in (I) $-C_2H_3(CH_2B)O-$ represents the 2 isomers $-CH_2-(CH_2B)-O-$ and $-CH(CH_2B)-CH_2-O-$, and $-C_2H_3(CH_2A)O-$ represents the 2 isomers $-CH_2-CH(CH_2A)-O-$ and $-CH(CH_2A)-CH_2-O-$; either P or Q is H, the other being 1-20 alkyl; A is $R-CH_2-$ or $R'-O-$(where R is linear 4-16C alkyl, and R' is 4-20C alkyl); B is $-OH$, $-NR_1R_2$, $-R_1R_2N-$ $R_1R_2\overset{\oplus}{N}\text{-}OH\,V^{\ominus}$, $R_1R_2\overset{\oplus}{N}H\,V^{\ominus}$, $R_1R_2R_3N^{\oplus}Z^{\ominus}$, $R_4S-(O)_a$ (where R_1 and R_2 are 1-3C (hydroxy)alkyl or form with th adjacent N a 6-membered heterocyclic ring , pref. a piperidino or morpholino ring; R_3 is methyl or ethyl; R_4 is 1-3C (hydroxy)alkyl or dihydroxyalkyl, pref. methyl, (hydroxy)ethyl, or dihydroxypropyl; $Z^{\ominus}$ is pref. $HSO_3^{\ominus}$, $CH_3SO_3^{\ominus}$, $CH_3SO_4^{\ominus}$, $CH_3-C_6H_4-SO_3^{\ominus}$; $R_1R_2\overset{\oplus}{N}H\,V^{\ominus}$ and $R_1R_2\overset{\oplus}{N}\text{-}OH\,V^{\ominus}$ represent an amine salt or amine oxide pref. a chlorohydrate, bromohydrate, sulphate, phosphat acetate, lactate, tartrate; a i 0 or 1); m is 2-10; n and n' are 2-25 , and n or n' can be 0.

(I) can be used in cosmetic or pharmaceutical compsns., e.g. hair conditioner. The oligomer has high surface activity, good water affinity, and produces very low irritation of the skin and mucous membrane partic. of the eyes. 19.7.76. as 021961 (52pp1319)

LIOY ★ D21 41161B/22 ★J5 4032-41
Hindered ester(s) prepn. - for use as lubricant, plasticiser o cosmetic base, by reacting olefin with carbon mon:oxide and hindered poly:hydric alcohol
LION FAT & OIL KK 15.08.77-JA-097587
A60 E19 H07 (09.03.79) B01j-31/22 C07c-67/38 C07c-69/02

Hindered ester (I) is prepd. by reacting 1-2.5 mol. (for 1 equiv. of hydroxy group in hindered polyhyric alcohol) of 6-10C olefin (II) with CO and hindered polyhydric alcohol (III) over 0.01-0.5 gram atom (calcd. in cobalt atom for 1 equiv. of hydroxy group in hindered polyhydric alcohol) of CO cpd. catalyst and 1-3 mol (for 1 gram atom of CO atom of CO cpd.) of pyridine cpd. co-catalyst under CO pressure without solvent with heating, cooling the reaction mixt. sepg. and recovering the catalyst and co-catalyst and recycling them for repeated use.

(I) being useful as lubricants, plasticisers or basic materials for cosmetics are obtained effectively in high yields. 15.8.77. as 097587 (7pp104)

MAZN ★ D21 41244B/22 ★J5 4048-889
Isoprene-propylene copolymer hydride - useful as base for cosmetics and pharmaceuticals
MARUZEN OIL KK 24.09.77-JA-115052
A18 B07 E17 (A96) (17.04.79) A61k-09 C08f-08/04

Hydride of propylene-isoprene copolymer where both ends of polymer chain is propylene monomer unit and carbon number is 27-43 is described. Pref. the copolymer is

ethyleneicosane, heptamethyleicosane, octamethyl-
osane, nonamethylhexacosane, decamethyltritriacon-
undecamethylcotriacontane.
ifically the copolymer hydride is a mixt. of hexa-
eneicosane and heptamethyleicosane. 24.9.77.
052 (14pp69)

D21 41292B/22 ★J5 4049-334

ack compsn. - comprising polyacrylate salt, poly:hydric
and water
CHEM KK 27.09.77-JA-115750
(A14) (18.04.79) A61k-07

ack is composed mainly of salt of polyacrylic acid,
dric alcohol and water. Polyacrylate is e.g. Na,
H_4 polyacrylate, having e.g. av. polymerisation
e of ca. 10,000-100,000, and is e.g.used at a ratio
0 wt.%. Polyhydric alcohol is e.g. glycerine, 1,3-
lene glycol etc. and is used e.g. at a ratio of 5-70 wt.

face pack shows improved water-retention and tem-
ure-maintaining effect, while not damaging the skin
g peeling off, and is suitable for use in the pack beau-
ture. 27.9.77. as 115750 (3pp43)

★ D21 41293B/22 ★J5 4049-336

th, high water content cosmetic creme - comprising glycerine
of lanolin fatty acid
AIICHI KOGYO SEIYAKU 27.09.77-JA-115744
(18.04.79) A61k-07

ne is essentially composed of a glycerine ester (I)
nolin fatty acid. (I) is e.g. a mixed ester of mono-,
nd tri-esters of lanolin fatty acids in a ratio of 30-
30-50%:1-15% and acts as excipient for creme (oil-
d) and as an emulsifying agent. The creme has a
and smooth feeling similar to that of liq. lanolin,and
a water content as high as 40-70%. 27.9.77. as
44 (3pp43)

★ D21 41294B/22 ★J5 4049-337

r-in-oil type stick cosmetics - comprises a mixt. of di:glycerine
e and oily or colouring substance formulated with aq. multitol

ANEBO KK 24.09.77-JA-114927
17 (18.04.79) A61k-07/02

er-in-oil type stick cosmetics are composed of a
. of diglycerine oleate and oily substance or col-
ng substance formulated with aq. multitol soln. The
ycerine oleate is e.g. a mixed ester of diglycerine
ooleate and diglycerine dioleate, and is contained in
of 0.1-10 wt.%. The oilysubstances are e.g. oils and
waxes, liquid hydrocarbon, higher alcohol, ester
and fatty acids or their mixt. and are e.g. contained
0-90%. The colouring substance or matter is e.g.
ment or water-soluble dye. The multitol is contained
rate of 1-25 wt.%, but is added in the form of aq.

The cosmetics, produced e.g. by adding an aq. multi-
soln. to a mixt. of diglycerine oleate and oil or dyes,
er stirring, with the uniform, stable emulsion sys-
formed, show smooth feel, partic. improved adher-
e, abrasion resistance, etc. to the lips, as well as
ellent mouldability. 24.9.77. as 114927 (7pp43)

S ★ D21 41295B/22 ★J5 4049-338

ke/up cosmetics - obtd. by formulating a polymer emulsion, e.g.
tyrene-acrylic resins contg. hydrophilic monomer
SHISEIDO KK 24.09.77-JA-114951
A96 (A13 A14) (18.04.79) A61k-07/02

e cosmetics are produced by formulating an emulsion
polymers with no emulsifying agent. The emulsion is
. formulated at a rate of 10-60% and is e.g. emulsion
styrene-acrylic resins. contg. e.g. hydrophilic mono-
ers e.g. 2-hydroxyethylacrylate, 2-hydroxyethyl propyl
rylate and 2-sulphoethyl methacrylate sodium salt.
The emulsion shows improved compatibility with
rious thickening agents, resulting in improved coating
ms, and can offer cosmetics with the improved stabili-
and feel. The cosmetics show improved resistance to
eat, tears, fat of the skin, raindrops, snow, water
when being applied on the surface of face. 24.9.77.

NISY ★ D21 41296B/22 ★J5 4049-339

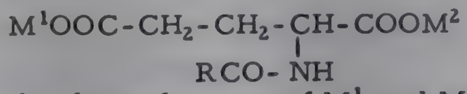
Hair treatment compsn. - comprises olefinic sulphonic acid cpd. vinyl ester copolymer or its partly saponified prod.
NIPPON SYNTH CHEM IND 26.09.77-JA-115694
A96 (A14) (18.04.79) A61k-07/06

Hair treatment agent is composed of (A) a copolymer of an olefin sulphonic acid cpd. and a vinyl ester with 0.5-5 mol.% olefinic sulphonic acid or (B) a prod. produced by saponifying ⩾50 mol.% of the vinyl ester component in the copolymer (A). The olefin sulphonic acids are e.g. ethylene sulphonic acid, aryl sulphonic acid, or their salts with K or Na. The vinyl esters are e.g. vinyl acetate, vinyl propionate or vinyl esters of satd. branched fatty acid. The copolymer is e.g. polymerisation degree 80-500. 26.9.77. as 115694 (4pp43)

LIOC ★ D21 41297B/22 ★J5 4049-341

Dentifrice compsn. - contg. mono- or di-alkali metal salt of a N contg. fatty acid-acyl glutamic acid
LION DENTIFRICE KK (AJIN) 27.09.77-JA-115800
E12 (18.04.79) A61k-07/22

Dentifrice compsn. (I) contains a mono- or di-alkali metal salt (II) of a N-contg. fatty acid-acyl glutamic acid of formula:



$$M^1OOC\text{-}CH_2\text{-}CH_2\text{-}\underset{\substack{|\\ RCO\text{-}NH}}{CH}\text{-}COOM^2$$

In the formula, one of M^1 and M^2 is H and other is alkali metal, or both of M^1 and M^2 are alkali metals,and RCO- is the mixed fatty acid gp. composed of (1) 65-85 wt.% of a mixt. (III) of 10-30 wt.% of coconut oil and 90-70 wt.% of hardened tallow fatty acid and (2) 35-15 wt.% of an unsatd. fatty acid (IV) such as oleic acid.

(I) does not stimulate mucous membrane in the mouth and is safe to humans. (I) has high washing effect depending on its high permeability.

(II) is pref. produced by acylation of the amino gp. of mono- or di-alkali metal L-glutamate with the fatty acid mixt. of (III) and (IV). The content of (II) in (I) is pref. 0.1-5 wt.%. 27.9.77. as 115800 (9pp42)

LIOC ★ D21 41368B/22 ★J5 4049-985

Hydrous aerosol agent - obtd. by formulating LPG with mixed soln. of water, alcohol and powder
LION DENTIFRICE KK (OSOL) 28.09.77-JA-116460
G04 (19.04.79) A61k-07 C09k-03/30

Hydrous aerosol agent is obtd. by formulating LPG with a mixed soln. (water/1-3C alcohol/power: 50/50-15/85 by weight), in which the amt. of LPG is 0.1 to 40% by wt. larger than the solubility of LPG in the mixed soln.

Decrease of combustibility and spraying of fine fog may be simultaneously achieved, and unpleasant sticky touch is improved.

Typically the agent consists of 9 wt.% LPG and 91 wt.% of a soln. comprising (by wt.), esterificated starch 4.0%, talc 4.0%, 95% ethanol 68.59%, purified water 22.86%, benzethonium chloride 0.05% and perfume 0.5%. 28.9.77. as 116460 (4pp96)

KANE ★ D21 41525B/22 ★J5 4050-513

Liq. shampoo compsn. - contg. N-acyl-glutamate and organic carboxylic acid or phosphoric acid
KANEBO KK 29.09.77-JA-117670
E19 (E36) (20.04.79) A61k-07/06 C11d-10/02

A liq. shampoo compsn. contains N-acyl-glutamate of formula $RCO\text{-}NH\text{-}CH(COOM_1)\text{-}CH_2CH_2COOM_2$ (where R is 7-21C alk(en)yl and M_1 and M_2 are H, Na, K, NH_4 or cation derived from alkanolamine except M_1=M_2=H) and organic carboxylic acid and/or phosphoric acid as the principal components. Pref. it contains 10-30 wt.% of N-acylglutamate and 4-16 wt.% (pref. 8-12 wt.%) on N-acylglutamate of organic carboxylic acid and/or phosphoric acid.

The compsn. has favourable foaming and cleaning powers, and acts upon hair and skin mildly. It gives a pleasant feeling and appearance to the washed hair. As N-acylglutamate: N-acyl-L-glutamate, N-acyl-D-glutamate or their mixt. is used. These cpds. are prepd. by the reaction of glutamic acid and halide of fatty acid of 8-21C in the presence of basic catalyst, e.g., N-laurolyl-

N-stearoylglutamate or N-oleoylglutamate of K, Na, ammonium, mono-, di- or tri-ethanolamine, mono- or di-isopropanolamine, etc. As acid; phosphoric acid, acetic acid, lactic acid, citric acid, gluconic acid, malic acid, tartaric acid, succinic acid, adipic acid, maleic acid, fumaric acid, glycine, pyrrolidone carboxylic acid, etc. can be used, and in partic. phosphoric acid, citric acid and tartaric acid are pref. 29.9.77. as 117670 (4pp170)

UMEZ/ ★ D21 41653B/22 ★J7 9006-612

Soln. for removing permanent wave from hair - contains nonionic surfactant, sodium or potassium (bi)carbonate and sodium or potassium oxalate or tartrate

UMEZAWA F 11.01.66-JA-001455

E12 (E34) (30.03.79) A61k-07/09

Soln. for restoring permanent waved hair to original state contains (i) nonionic surfactant, (ii) Na or K (bi)carbonate, and (iii) Na or K oxalate or tartarate. Pref. (i), (ii) and (iii) are used in conc. of 0.2-0.3%, 1-3% and 3-5% respectively. The soln. can be used as such or in a form of cream.

The soln. is used specifically for restoration of permanent wave that has been formed by chelate-forming metal oxide method. The soln. completely removes the wave in 10-15 min. 11.1.66 as 001455, A61k-7/09 (30.3.79) MINAKAWA M, UMESAWA F. (2pp83)

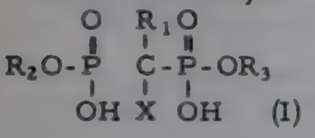
THER- D21 62460Z/00 =NL-160-161

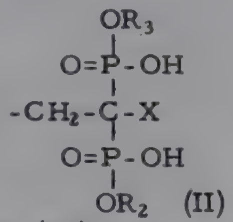
Phosphoric acids

THERACHEMIE CHEM-TH 24.11.65-DT-T29843

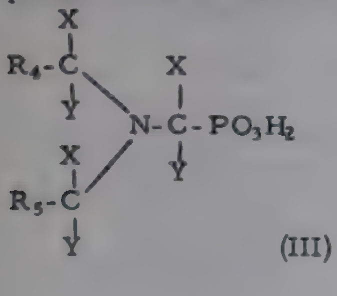
*E11 (15.05.79) *DT1264-687 +A61k-07/06*

Agents for bleaching and colouring hair (NL 6401994) of formula (I) in which X = hydroxy or amino; R_1 = aryl or 1-5C aliphatic or a gp. of formula (II) in which R_2 and R_3 = H or 1-5C alkyl.

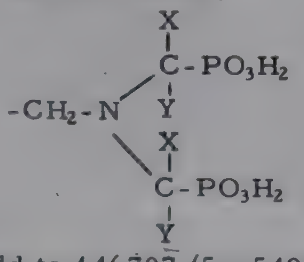

(I)


(II)

The improvement concerns the compsn. In addn. to the phosphorus cpd. above, the hair treating agent contains > 0.01 wt. % nitrilopolyphosphonic acid of formula (III):


(III)

in which X and Y = H or 1-4C alkyl and R_4 and R_5 = PO_3H_2 gp. or a gp. of formula (IV) or its water sol. salts or ester.


(IV)

27.10.66 as 015210 Add to 146707 (5pp549)

ANON ★ D21 41744B/22 ★RD-181-075

Tooth cleaning agent contg. mutanase and glucose oxidase - with good plaque decomposing and spot removing action

ANONYMOUS 20.04.79-RD-181075

*(10.05.79) A61k-00/**

Tooth cleaning agent comprises a nutanase (I) and a glucose oxidase (II). Pref. the agent is formulated as a toothpaste and also contains an enzyme stabiliser. Such a prod. could contain 500-1500 u./g. (I) and 100-500 u./g. (II).

Other agents are formulated as mouth rinses, chocolates, lozenges, chewing gum, denture cleanser (when effevescent materials may be included) etc. The H_2O_2 produced by (II) removes the small amounts of glucose formed by the action of (I) on plaque.

The agent shows both satisfactory plaque decomposing action and spot removing action. It is useful for cleaning both natural and artificial teeth.

COLG ★ D21 42298B/22 ★US 4

Nonionic liq. shampoo - contg. amine oxide, polyoxye
hexitan mono fatty acid ester, nonionic detergent and water

COLGATE PALMOLIVE CO 07.07.77-US-813569 (23.07
708116)

A96 (15.05.79) C11d-01/75 C11d-03/26 C11d-07/32

Nonionic shampoo contains: (a) (all by wt.) 3-30% of
amine oxide (I); (b) 2-30% of a polyoxyethylene hexit
mono-higher fatty acid ester (II); (c) a nonionic dete
from (i) 6-30% alkoxy polyoxyethylene ethanols (III)
C alkoxy; ethylene oxide (EO) content including CH_2C
of the ethanol is 6-20 mol/mol), or (ii) 6-30% of 10-
alkyl glycosides (I)V, or (iii) 6-30% of mixts. of (III
(IV) and/or (iv) a mixt. of 16-% of a 10-20C acyl 2-3
mono- or dialkanolamide (V) and 0.05-1% of a polya
amide (VI) (mol. wt. $1x10^5$-$3x10^6$); (d) and 25-89% de
H_2O. The shampoo is free of ions, has conductivity <
micromohs/cm, and pH 5-10.

(I) have 2 short chains (1-4C alkyl or hydroxyalky
1 long chain (10-20C alkyl or 11-21C acylamido-(1-4
alkyl) on the N. (II) have 10-20C in higher fatty acyl,
10-100 mol. of (EO)/mol.

Stable compsns. show good forming power in the
ence of sebum soil and leave washed hair in a more
geable state than anionic shampoos. In addn., the co
are mild, and are less damaging and irritating to ha
scalp, and eyes, etc. 7.7.77 as 813569 (11pp478)

KLEI/ ★ D21 42330B/22 ★US 41

Improving natural defences to caries with peptide(s) - of two
aminoacid units at least one of which is arginine, added to
care prods., foods etc.

KLEINBERG I 12.01.78-US-868933 (18.06.76-US-697538)

B04 (B05) (15.05.79) A61k-07/22 A61k-09/68 C07c-103/52

The body's resistance to caries is supplemented by p
ing to the mouth a peptide having 2-4 amino acid unit
least one of which is arginine. The peptide is effectiv
restoring the mouth pH to a non-carious level. Suitab
concns. of the pH rise factor are from about 0.05mM
about 3mM. It may e.g. be provided in a dental care
duct, in food or in chewing gum.

Suitable peptides includ Arg-Leu, Arg-Ser, Asp-A
Phe-Arg, Gly-Arg, Gly-Gly-Arg and Gly-Gly-Lys-Ar
12.1.78 as 868933 (3pp476)

UNIL D21 38400A/21 =US 41

Anti-plaque and anti-calculus tooth paste compsn. - contg. zin
and hydrolytic enzyme

LEVER BROTHERS CO 29.10.76-US-737260 (01.04.70-US-024

*B05 (15.05.79) *US4082-841 A61k-07/28*

A fluoride-free tooth powder for reducing dental plaq
calculus consists of (a) 0.1-30% of a non-enzyme bou
acceptable Zn acetae, benzoate, borate, carbonate, c
dl-lactate trihydrate, phenolsulphonate, silicate, 8-1
alkanoate, salicylate, stannate, sulphate, tannate or
ate; (b) 0.1-30% of an enzyme prepn. selected from p
ease, carbohydrase and/or lipase; and (c) 50-99 (90-
dental polishing agent.

Pref. the zinc cpd. is Zn phenolsulphonate, the en
is a protease derived from Bacillus subtilis, and the p
shing agent is a mixt. of silica xerogel and silica aer
The parent patent describes a toothpaste compsn. als
contg. humectant, water and foaming agent. 1.12.77
856471 Div ex 4082841 (+30.12.71, 20.11.73, 17.6.74,
10.10.75-US-214479, 308079, 479914, 631331) (11pp96

NAAR D21 31308Y/18 =US 415

Solid hydrophobic antiperspirant compsn. - suitable for us
persons with delicate skins NL 19.4.77)

NAARDEN INT NV 17.10.75-NL-012239

*A96 (15.05.79) *DT2647-217 A61k-07/38*

A solid transparent gelled antiperspirant compsn. com
ses 10-80 wt. % of lower monohydric alcohol, 10-60 wt
of dihydric alcohol, trihydric alcohol, lower polyglyco
2-15wt. % of acidic metal antiperspirant, 0-10wt. % of
mono- or dialkylolamide of a higher fatty acid, and a g
ing agent.

Gelling agent consists of 0.5-5wt. % dibenzaldehyde
monosorbitol acetal, and 5-30 wt. % of a propylene-/et
ene glycol polycondensate of formula $HO(C_2H_4O)_x(C_3H$

e y/(x+y) is 0.6-1, having mol. wt. ≥ 500. 14.10.76
2459 (2pp931)

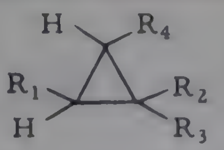
/ ★ D21 42388B/22 ★US 4154-952

propane derivs. prepn. - by reacting an aldehyde, active ylene cpd. and a sulphonyl, sulphinyl or sulphenyl halide with ng base

HULTZ H W 31.01.77-US-766801

5 C03 E19 (B03 C02) (15.05.79) C07c-69/74 C07c-121/46

tituted cyclopropane deriv. of the formula (I) are pre-
d by reacting an aldehyde R_1CHO (II), an active methyl
cpd. $R_2CH_2R_3$ (III) and a sulphur halide cpd. (IV) to-
er in an inert organic solvent in the presence of a
ng base soluble in the solvent. (IV) is $R_4CH_2(CH_3)_2SOX$,
$I_2(CH_3)_2SX$ or $(R_4CH_2)(CH_2)_4SX$ (where R_1=H, (1-17C)


(I)

alkyl, phenyl, halophenyl, pyridyl, furyl or phenyl substd. by one (1-6C) alkyl or (1-6C) alkoxy; R_2 = carbomethoxy, carboethoxy or CN; R_3=phenyl carbomethoxy, carboethoxy or amido or R_2=carboethoxy and R_3=acetyl; R_4= H, carbethoxy or phenyl; X=halide).

(I) are intermediates, insecticides, cosmetics, pharmaceuticals, esp. tranquillisers. The process has the advantage that it requires readily available starting materials, is completed in a single step and does not require high temperatures or pressures. 31.1.77 as 766801 (6pp)

See Also

D13 DT 2842221	D13 US 4154696	D13 US 4154763
D18 US 4154835	D23 BE 873680	D23 GB 2008115

D22 : BANDAGES; DRESSINGS

Y ★ D22 40612B/22 ★BE -872-208

ester copolymers contg. glycolide and tri:methylene carbonate - used for making surgical articles esp. sutures

MERICAN CYANAMID CO 22.11.78-BE-872208

96 P34 (A23) (22.05.79) A61l C08g

copolymers comprise units of formula (I) and (II):
O-CH_2COOCH_2CO-]- (I); -[-O-$CH_2CH_2CH_2$-OCO-]- (II).
copolymers are used for making surgical articles,
: absorbable sutures or ligatures having an exceptional
aking resistance.

The m. pt. of the copolymer, as determined in a differ-
ial scanning calorimeter with a 10°C rise/min., is
f. 217-221°C and its inherent viscosity (IV) is esp. 0.7-
. The amt. of units (II) is partic. 10-20%. 22.11.78
872208, Add to 867222 (9pp597)

L- ★ D22 40700B/22 ★CA 1053-874

ilising vials in block of thermal insulation - with heater and rmal cut/out giving gradual temp. fall

WESLEY-JESSEN INC 24.01.77-US-762176

P34 (08.05.79) A61l-03

teriliser comprises a box of thermally insulating mat-
al within which is a heated vessel. The vessel is raised
a predetermined temp. and then allows to cool at a rate
ntrolled by the thermal insulation.

An item to be sterilised is placed in the vessel for a pre
etermined period during which is carried through a
np. cycle after which it is removed. The box lid also
ludes insulating material and pref. has a cavity to
ceive the upper portion of the article being sterilised.

The appts. sterilises contact lenses within a vial. The
erilising operation is controlled by thermal time con-
ants and does not require the use of sophisticated con
ols. 30.11.77 as 292075 (19pp295)

LN D22 51115R/29 =DS 1760-171

posable diaper machine

MOLNLYCKE AB 12.04.67-SW-005091

*+P21 (23.05.79) *CA-846-620 +A41b-13/02*

machine for the mfr. of throwaway baby's napkins con-
sts of a section to produce absorption pads from a cell-
ose tissue strip which is fluffed up to produce cotton wo-
, a plain cellulose tissue strip and a fibrous mesh mat-
ial strip, which is cut into pads. A thin flexible plastic
il strip is held to an endless belt by a suction box and
s recesses cut out at the edges between which an adhes-
e is applied. The absorption pads are finally pressed
and the napkin is cut to length.

This prevents the plastic foil from curling and elimin-
tes NOT GO products. 11.4.68 as 760171 (6pp39)

KNSE D22 61983A/35 =DS 2705-732

Activated sludge for air purification - used in scrubber having sprays of wash water containing bacteria with packing through which air flows

KUNSTSTOFFTECH GMBH 11.02.77-DT-705732

*(23.05.79) *DT2705-732 B01d-53/34*

A wet separator to purify exhaust air by absorbing contaminants in water sprays consists of a conical sump with octagonal grooves in its rim at floor level. Eight slabs of concrete are slotted into these grooves to form a container which receives several decks of water spray banks in alternate direction (up-down), sepd. by plates of scrubber packing. The bacteria in the activated sludge which is preferably added to the sump water for regeneration receive additional oxygen by an aerator.

The activated sludge treatment makes the water in the sump fit for continuous re-use. 11.2.77 as 705732 (5pp39)

STRI/ ★ D22 40776B/22 ★DT 2751-778

Beer piping cleaning system - with suction nozzle for disinfectant inserted in tap water circuit

STRICKER H 19.11.77-DT-751778

P43 (D16) (23.05.79) B08b-09/02

A system for the cleaning out of piping between bar barrels and the taps in a bar consists of a hose which is coupled between a water tap and a beer tap and includes a suction nozzle. A beaker with a disinfectant is attached to the nozzle so that the flow of water entrains the disinfectant. The piping in the cellar is disconnected from the barrels and coupled together so that the fluid can rise to another beer tap and out into a sink.

After a certain retention time the whole is flushed out with clean water. This provides a chemical cleaning in addition to the conventional sponge cleaning. 19.11.77 as 751778 (12pp39)

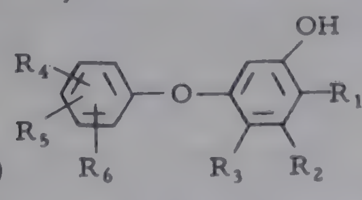
CIBA ★ D22 40883B/22 ★DT 2849-856

Halogenated 3-hydroxy-di:phenyl ether derivs. - useful as broad spectrum antimicrobials, e.g. in skin care prods.

CIBA GEIGY AG 21.11.77-LU-078554

A60 B05 C03 P34 (23.05.79) A61k-07/40 A61l-13 C07c-43/28 C11d-03/48 C11d-09/50

Diphenyl ether derivs. of formula (I) are new:


(I)

(where R_1 = H, F or Cl. R_2 and R_3 are H or Cl, R_4, R_5, and R_6 = H, F, Cl, Br or 1-4C alkyl. Each phenyl ring has ≥1 halo substit. and the total no. of halo in the molecule is ≯4). They are made e.g. by demethylation of the corresp. anisole deriv. with an acid catalyst.

(I) are effective against bacteria, fungi, and yeasts and with a broader spectrum of activity (including Psuedomonas species) than known hydroxydiphenyl ethers. They are useful e.g. in cleaning-disinfecting compsns.; for protecting textiles against spoilage; as disinfectants and deodorants in skin care prods. (esp. soaps) and as wood preservatives. They have good solubility properties and are colourless and odourless. 17.11.78 as 849856 (43pp1251)

ROHM ★ D22 40964B/22 ★EP ---2-072
Removing bacteria from liq. - using ion exchange resin and submicron filter
ROHM & HAAS CO 23.11.77-US-854306
(30.05.79) B01d-35 B01j-01/06 C02b-01/40
D/S: E(DT, FR).

Bacteria is removed from a liq. by passing the liq. through a bed of ion exchange resin having an av. pore dia. of 8000-500,000 Å. Effluent from the bed is passed through a submicron filter having an av. pore dia. of at least 0.03 µ and a max. pore dia. of 1 µ. A pressure tight relationship is maintained between the filter and the bed so that when the capacity of the resin for removing bacteria becomes exhausted and the bacteria passes to the filter to block it, the pressure rises to a level sufficient to reduce the flow of liq. leaving the filter.

The process is used for purifying water, esp. in sterilising soft contact lenses. The reduction in liq. flow from the submicron filter indicates exhaustion of the ion exchange resin bed and provides a safety factor against passage of bacteria into the effluent liq.

22.11.78 as 101440 (18pp67).
(E) ISR: GB1305373; FR2216230; DT2233002; US3836458.

GEAT ★ D22 40969B/22 ★EP ---2-090
Multi-fibre carbon coated suture - comprising wound or braided plastic filaments coated with isotropic carbon
GENERAL ATOMIC CO 22.11.77-US-853848
A96 F07 P34 (30.05.79) A61l-17
D/S: E(CH, DT, FR, GB).

A suture for permanent retention, comprises wound or braided filaments of a plastics material having a tensile modulus of elasticity of $\geqslant 13.8 \times 10^6$ k Pa and a diameter of < 25 µ. The filaments are coated with a layer < 0.7 µ thick of dense isotropic carbon with a Boron Anisotropy Factor (BAF) of $\not> 1.3$, and a tensile fracture strain of $\geqslant 5\%$.

A pref. plastics is polyethylene terephthalate although aromatic polyamides and polyimides are also suitable. The coating is pref. applied by vapour deposition, either upon individual filaments or upon the suture as a whole.

The suture can be kept in place permanently and will support growing flesh and reinforce it.
13.11.78 as 200301 (13pp525).
(E) ISR: US3526005; US3557795; US3390681; US3187752.

AMCY D22 31665X/17 =GB 1546-668
Anhydrous liquid germicidal iodophor compsn. - for disinfection of skin
AMERICAN CYANAMID CO 29.05.75-US-581600
*E14 +P34 (31.05.79) *US3950-261 A61l-13*

Anhydrous liq. iodophor detergent soln. comprises (a) 26-34wt.% propylene glycol; (b) 40-46wt.% nonion detergent (I); (c) 18-26wt.% iodine complex of an ethylene oxide alkylphenol condensn. prod., having 18-22wt.% available iodine, the alkyl having 5-15C in a straight chain; (d) 1-3wt.% Na acetate; (e) 1-3wt.% NaI; and (f) citric acid in an amt. sufficient to produce a pH of 3-5.5.

(I) consists of a condensn. prod. of ethylene oxide and an alkylphenol, the alkyl having 5-15C in a straight chain. The soln. is useful as a pre-surgical skin cleansing agent which can be adsorbed in a disposable scrub sponge. The sponge can be packaged and stored for long periods without loss of potency. 25.5.76 as 021720. (3pp927)

LABO- D22 69198Y/39 =GB 1546-746
Automatically venting steam steriliser - with heat expansible valve element closing working chamber when all air is vented
LABOR MUSZERIPARI M 20.03.76-HU-LA0886
*P34 (31.05.79) *DT2708-944 A61l-03*

Automatic steriliser having an enclosed chamber with means to heat and evaporate water to provide a steam atmosphere within the chamber.

An air exhaust valve is provided on the chamber
a heat expandable housing which expands during use,
according to the temp. of the outflowing gases to clo
exhaust valve. The valve being adjustable to allow t
operating conditions of the valve to be regulated.

Arrangement permits consistent removal of air f
the work chamber thus giving improved reliability to
sterilisation process. 7.3.77 as 009417. (3pp397)

MOOC D22 18245Y/11 =GB 15
High yield pulp prodn. from ligno-cellulosic raw material
wood bagasse, straw, for prodn. of high absorption prods
hygienic tampons
MO OCH DOMSJO AB 13.11.75-SW-012777
*A97 F09 +P32 (31.05.79) *BE-848-104 D21c-03/06*

Light coloured cellulose pulps having low resin conte
and high bulk contain 0.1-1.0wt.% S; > 25wt.% fibr
retained on a 20 mesh screen (Bauer-McNett fibre fr
tionation analysis); $\geqslant 10$wt.% soft, sulphonated bunc
of 2-4 fibres; < 0.8wt.% resin content (SCAN-C7:62
a bulk when dried of $> 20 \times 10^{-3}\ m^3/kg$. All percenta
are w.r.t. oven dried pulp.

Pulps are esp. suitable for the mfr. of absorbent
e.g. tissue paper, cellulose wad, diapers, sanitary
kins and tampons. 8.11.76 as 046379. (10pp974)

TOKE- ★ D22 41104B/22 ★GB 200
Surgical immobilising bandage of good mouldability - contai
aliphatic polyester e.g. poly:hexa:methylene adipate
TOKYO EIZAI LAB 17.11.77-JA-138244
A96 (A23) (31.05.79) D06m-15/48

A bandage contains as its main constituent an aliphati
polyester, or mixt. of such polymers, synthesised fr
aliphatic diols and satd. dicarboxylic acids. It is pre
by impregnating an elastic fabric, pref. a tricot or ru
er-threaded fabric, with a compsn. contg. the polyest
together with colourants and/or fillers.

Pref. polyesters are polyhexamethylene adipate an
suberate. Their mol.wt. is pref. $\not< 10,000$, m.pt. $\geqslant$
and second order transition pt. < -20°C.

The prod. is a surgical immobilising bandage, use
the formation of orthopedic casts. The bandage of thi
vention is free of the disadvantages mentioned above,
is of good mouldability. If it is required to vary the
of the cast later, this can be done by partial heating.
27.10.78 as 042320. (4pp1331)

TOKE ★ D22 41140B/22 ★J5 400
Gas deodorising appts. - includes washing and catalytic o
zones
TOKYO SHIBAURA ELEC LTD 21.06.77-JA-072792
Q73 (22.01.79) B01d-53/14 F23g-07/06

Appts. for deodorising a gas, characterised by makin
washing and catalytic oxidation of gas mixed ozone, in
which the temp. of the wash water is kept less than tha
of atmos. by contacting with atmos. at cooling tower.

A decrease in temp. of the wash water leads to a decrease in temp. of gas, at the same time moisture cor
of gas is reduced, and thus the lowering in capacity of
catalyst may be avoided. 21.6.77. as 072792 (3pp96)

KATA- ★ D22 41280B/22 ★J5 4049
Insecticidal plaste for use with wood to be used in sea wa
comprises insecticide, surfactant, paste stabiliser and org
solvent
KATAYAMA KAGAKU KOG 26.09.77-JA-115897
C03 E19 F09 P63 (18.04.79) B27k-03/34

The insecticidal agent is composed of 1-15 pts. wt. of
insecticidal component, 3 to 12 pts. wt. of a surfactant
0-10 pts. wt. of paste-retaining and stabilising agent a
0-10 pts. wt. water-soluble organic solvent, formulate
against 100 pts. wt. of the total of water (5-40) and a
hydrocarbon solvent (95-60).

The hydrocarbon solvents are e.g. those of b.pt. 30
390°C. The insecticidal components are e.g. organic t
cpds.; organic sulphur cpds. e.g. dimethyl dithiocarbamic acid; and organic chlorinated insecticides. The
paste-retaining and stabilising agents are e.g. starch
modified starches, vaseline, waxes, etc. 26.9.77. as
115897 (6pp43)

D22 41285B/22 ★J5 4049-322
dical fungicide and antibiotic - contg. as active component
xyalkyl glycol ether
EL KK 26.09.77-JA-115823
C03 E17 (18.04.79) A01n-09/24
dical fungicide and antibiotic contains as active
ient 2-hydroxyalkylglycol ether of formula
$_1$OH(OH)CH$_2$(OCH$_2$CH$_2$)mOH (I) (where n is integer
nd m is integer 1-3).
is the uses in nonmedical fields such as general
rial products, cosmetics, agricultural crops and
I) is effective, e.g., to Ps. fluorescens, Staphy-
s aureus, Bacillus subtilis, yeast, Aspergillus niger
llium citrinum. Ether of diethyleneglycol is partic.
ve. Further, ether having 2-hydroxyalkyl with 8-14
atoms shows the excellent effect.
is prepd. by reacting 1,2-epoxyalkane with ethylene-
, diethyleneglycol or triethyleneglycol, or by reac-
2-alkanediol with ethylene dioxide. 26.9.77. as
3 (3pp108)

★ D22 41298B/22 ★J5 4049-343
eshener gel compsn. stable at low temp. - contains
eenan, locust bean gum and PVA as gelling agent
HNSON KK 27.09.77-JA-115071
7 P34 (A14) (18.04.79) A61k-07/46 A61l-09
-compsn. (I) contg. an agent (II) for air-treatment,
nposed of 97-92 wt. % of water-miscible solvent
volatile (II) and 3-8 wt. % of gelling agent (III)
osed of (1) carrageenan (IV), locust bean gum (V)and
inyl alcohol (VI) or (2) (IV) and (VI). (VI) should be
ally saponificated (VI) having saponification degree
%, or completely saponificated (VI) having saponifi-
n degree $>$ 98%. The weight ratios of (VI)/(IV) and
IV) are 1.0-2.2 and 1/15, respectively. One or both
e following qualifications should be met: (1) 0.1-1.0
of anionic surface active agent is contained in (I)
or (2) the content of (II) is $<$ 1.5 wt. %.
wering of gel-hardness and the separation of liquid
onent from gel are prevented even at low temp.
I), perfumes, such as lemon and coolmint are used.
polymerisation degree of (VI) is $>$800. 27.9.77.
.5071 (5pp42)

- ★ D22 41365B/22 ★J5 4049-981
orising air from sewage and night soil treating plant -
rises washer, dewatering unit, adsorber, deodorising column
leodorising-decomposing furnace
AKASAGO NETSUGAKU 28.09.77-JA-115644
34 (19.04.79) A61l-09/ B01d-53/08*
s. comprises (a) a washer; (b) a dewatering unit;(c)
dsorbing unit; (d) a deodorising column; and (e) a deo-
sing-decomposing furnace.
ctive carbon is charged to form an adsorbing bed in
unit and gradually moved down, while air is blown up
the unit for making a counter-flow contact with the
on. The carbon drained from the unit is fed back into
pper section of the unit, where a heater is disposed to
enerate the carbon.
large amt. of air contg. several malodorous compon-
of low concs. can be treated at high efficiency without
sing air pollution. 28.9.77. as 115644 (3pp26)

B- ★ D22 41370B/22 ★J5 4049-988
dorising element prodn. - by pressure welding powdered or
ular active carbon on surface of extruded thermoplastic base
OKABE KINZOKU KOGYO 28.09.77-JA-117656
A97 J01 (19.04.79) B01d-53/02
h element carries active carbon over the surface of a
e. In use, such elements are assembled or netted to
n a flat screen for air and water. To prevent the
ried active carbon from dropping off from the base,
owdered or granular active carbon is pressure welded
he surface of a thermoplastic base extruded in a mol-
state, and cooled until the base is hardened together
the carbon.
Specifically the extruder producing a filamentary base
PVC is followed by a tank containing the active carbon
be adhered to the base. The base passes then between
lers for pressuring the carbon to the base. The ele-

117656 (3pp26)

OKAB- ★ D22 41371B/22 ★J5 4049-989
Deodorising element for air, water etc. - comprises grooved base e.g. of PVC having active carbon adsorbent confined in grooves
OKABE KINZOKU KOGYO 28.09.77-JA-117657
A97 J01 (19.04.79) B01d-53/02

Deodorising element has active carbon for adsorbing odorous components of air, water etc. An assembly of the elements may form an air screen. To prevent the carbon from dropping off , a base having grooves on the surface is extruded in a molten state from an extruder, then a granular active carbon is entered into the grooves, and the grooves deformed to reduce their widths to confine the carbon.

Specifically a filamentary base made of PVC and having the grooves is extruded from the extruder, then passes through a tank for adhering the carbon to the base, and twisted between a pair of rollers. 28.9.77. as 117657 (4pp26)

KOAT- D22 74884Y/42 =J7 9010-552
Deodorant compsn. for household and industrial use - comprises dried mudstone particles and activated carbon granules
KOATSU GAS IND KK 03.03.76-JA-023512
*E37 P34 (E18) (08.05.79) *J52106-388 B01d-53/02*

Deodorant compsn. comprises 95-40 wt. % dried mudstone particles and 5-60 wt. % activated carbon granules. Mudstone, naturally occurring in Akita prefecture and Ibaragi prefecture for example, and having e.g. compsn. of 70-80 wt. % SiO_2, 7-10 wt. % Al_2O_3, <3 wt. % Fe_2O_3 and K_2O, <1- wt. % MgO and the balance Ca, Na, etc., is dried at 80-100°C, and crushed to ca. 5 mm. size.

The compsn. has improved adsorption power and decod-ourising power, superior to that of activated carbon, and is partic. effective for ammonia, mercaptan and hydrogen sulphide. 3.3.76 as 023512 B01d-53/02, (8.5.79) KOATSU GAS IND KK (5pp) (J52106388)

IMAM/ D22 59442A/33 =J7 9010-554
Deodorising adsorbent used e.g. in a piggery - is mfd. by impregnating wood chips with sodium bi:carbonate soln., washing with water and drying
IMAMURA T 24.12.76-JA-154927
*P34 (08.05.79) *J53078-987 +B01d-53/34*

Adsorbent is mfd. by immersing wood chips or wood dust in sodium bicarbonate soln., boiling or digesting it, washing with water, dehydrating, and drying. Useful for removal of bad smells from e.g. excretion in hog yard, poultry yard, etc.

Specifically wood chips and wood dust are immersed in 1% sodium bicarbonate aq. soln. boiled or digested for 1-2 hrs. at about 10°C, washed thoroughly with clean water, dehydrated, and dried. Sodium bicarbonate soln. permeates rapidly into the structure of wood chips or dust to swell the cell membrane and expand the pores. Soluble components to cold water are organic salt, sugar, gum, pectin-like substance, galactan, tannin, dye, etc., and alkali- soluble components, oil, fat, wax, resin essential oil, lignin and hemicellulose are extracted at least partially by hot alkali treatment. The adsorbent has very large surface area for adsorption. 24.12.76 as 154927 B01d-53/34 (8.5.79) IMAMURA T (3pp) (J53078987)

ICIL D22 64467S/40 =J7 9010-612
1,2-benzisothiazolone solns as disinfectants
IMPERIAL CHEM INDS LTD 31.03.70-GB-015086
*B02 E13 P34 (08.05.79) *BE-765-108 +A61k-09/08*

Stable solns. for use as disinfectants are obtd. by dissolving crude 1,2-benzisothiazolone in a 2-6C aliphatic, cycloaliphatic or heterocyclic amine free of OH and ether gps. opt. with water. Solns. contain e.g. 30-38% (I) and 20- 30% amine. Compsns. may be used at the rate of 30- 300 ppm, in aq. media.

Pref. amine is ethylene diamine. 31.3.71 as 019591 (clg. 31.3.70-GB-015086) A61k-9/08 (8.5.79)CHEMICAL INDS. LTD (3pp)(J46004048)

ALLR D22 24545W/15 =J7 9010-615

Sterilising soft contact lenses - in isotonic solns contg. alkyl trialkanol ammonium chloride and decontaminants

ALLERGAN PHARM INC 24.09.73-US-399692

*A96 E16 P34 +R21 (A11 A14 A89) (08.05.79) *DT2436-905 G02c-07/04 +A01n-09/20 A01n-17/10 C11d-01/62*

Agent for sterilising soft contact lenses consists of (A) an effective quantity, pref. 0.01-1%wt./vol. of a cpd. having general formula $RN^{+}(R_1OH)(R_2OH)(R_3OH)$(where R is 12-20C alkenyl and/or alkyl and R_1, R_2 and R_3 each is 1-3C alkylene) and (B) a de-contaminating quantity, pref. 0.01-2% wt./vol. of a non-toxic cpd. e.g. water-sol. polyhydroxyethyl methacrylate, carboxymethyl cellulose, non-ionic surfactants, e.g. polyoxyethylene-sorbitol fatty acid esters and polyoxyethylene alcohols, polyvinyl pyrrolidone, polyvinyl alcohol and/or hydroxypropyl methyl cellulose. 20.4.74 as 045011 (clg. 24.9.73-US-399692) A0ln-9/20, 17/10, C11d-1/62, G02c-7/04, (8.5.79) ALLERGAN PHARMACEUTICALS (8pp) (J50060243)

RAUS- ★ D22 B/22 ★OE 7803-466

Wound compress making device

RAUSCHER & CO VERBA 00.00.78-OE-003466

P34 (15.05.79) A61l-15

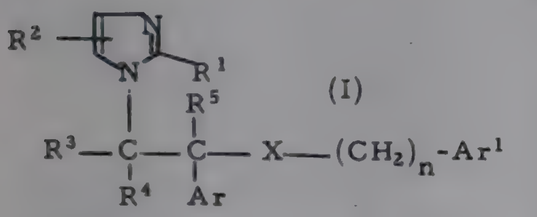
JANC D22 13618R/09 =SU -617-011

Fungicidal and insecticidal 1-(beta-aryl)ethylimidazole - ethers and amines

JANSSEN PHARMACEUT NV 19.08.68-US-753729

*B03 C02 (03.07.78) *NL6912-331 +A61k-51/39 C07d-23/56*

Cpds. of formula (I) and their acid addn. salts have been prepd. In the formula, R^3, R^4 and R^5 = H or (1-6C) alkyl; X = O or NH; n = 0, 1 or 2; R^1 = H, Me, or Et; R^2 = H or Me Ar = Ph opt. substd. by 1 or more hal., (1-6C) alkyl, or (1-6C) O alkyl, thienyl, or halothienyl; Ar^1 = Ph opt. substd. by 1 or more hal. (1-6C) alkyl, (1-6C) O alkyl, CN, NO_2 and/or NH_2, or an α-tetralyl residue; with the provisos' that (a) If X = NH, R^5 = H; (b) if Ar^1 is substd. by NO_2 or NH_2, X = O and n = 0; (c) If Ar^1= α-tetralyl, X = NH and n = 0; and (d) if X = O and Ar opt. substd. by hal. (1-6C) alkyl, (1-6C) O alkyl, and/or CN, then n = 0.



Godfrey, E.R., Heeres, J. Bul. 27/15.7.78. 6.5.70. as 365544 (5pp)

BOEH D22 08368A/05 =US 4154-342

Sterilisable package for surgical instrument etc. - has robust plastic filter element esp. of polyethylene to keep out bacteria and let out gas

BOEHRINGER INGELHEIM (WALL-) 30.07.76-GB-031791

*A92 Q32 +P31 P34 Q34 (A96) (15.05.79) *BE-857-338 A61b-19/02 +B65d-33/18 B65d-83*

A sterilisable package consists of a gas-impermeable plastic container closed by a plastic cap having an aperture. A porous plastic filter element is fitted within the cap to cover the aperture, and is at least as thick as the thinnest part of the container.

The element is pref. 1-5mm thick and made of polyethylene. The container receives a medical or surgical instrument, and during sterilisation the filter elements permits the passage of gases but prevents bacteria entering. 28.7.77 as 819950 (4pp1379)

POLI- D22 47090A/26 =US 4154-398

Room deodoriser in form of an ashtray - with deodorant housed in its bottom part

POLICHIMICI GUABER 09.12.76-IT-015225

*P34 +P15 P32 (15.05.79) *NL7713-645 A61l-09/04*

A room deodoriser comprises a top ashtray with a downward flange, and a cup-shaped bottom part with an upward side wall fitting into the flange to form a cavity to receive deodorising substance. The flange has at least one opening to register with an opening in the side wall for aeration of the substance, a downward peripheral skirt on the ashtray concealing the openings from view.

The flange and side wall are pref. both circular, with an equal number of equi-spaced openings, and a pr
bead on flange or side wall engages recesses in the
for registration of the openings. 28.11.77 as 8557

SNKM D22 38800A/22 =US

**Hydraulic dental cement mixt. - of silicon di:oxide-contg
cement powder and polyacrylic acid setting agent powder**

SANKIN IND CO 16.11.76-JA-138002

*A96 (A14) (15.05.79) *DT2751-069 +C08k-03/22*

A hydraulic dental cement compsns. comprises a n
a dental cement powder contg. 18-70 wt.% silicon c
9.8-82 wt.% zinc oxide, and ⩾1 additional compon
5-20wt.% aluminium oxide, 15-50 wt.% inorganic f
or 5-15wt.% aluminium phosphate. Compsn. further
tains a setting agent powder contg. polyacrylic acid

Pref. powder is obtd. by sintering a mixt. of all
ingredients at 1000-1250°C for ⩾1 hr. and by fine c
into grains of < 350 mesh. Powder is obtd. by being
ground by being jet sprayed.

Compsn. has high compression strength, and its
pulverulence makes it excellent in workability and r
only to be kneaded with water to be placed in a usea
form. 13.10.77 as 841895 (4pp931)

KAOS D22 17638X/10 =US 4

**Deodorizing compsn. - contg. a beta-substd. acrylic acid
active ingredient**

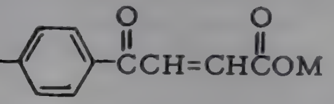
KAO SOAP KK 02.07.74-JA-075508

*E36 P34 (E19) (15.05.79) *J51007-123 +A61l-13*

Odiferous materials contg. ⩾1 mercaptan, hydrogen
phide, ammonia and/or amine as the bad-smelling c
ponent are deodorised by applying to the material ar
tive amt. of (a mixt. of) a deodorising cpd.

Deodorising cpds. consists of a cpd. of the formu
$R_1COCH=CHCOOM$, and a cpd. of formula (I), where
H, Na, K, NH_4, mono-, di- c
ethanolamine, (di)methylam
(di)ethylamine, methylethyl
propylamine, methylpropyl
or methylbutylamine. R_1 is 1-20C alkyl or 2-20C alke
R_2 is H, 1-20C alkyl or 2-20C alkenyl.

(I)



Prod. is excellent for removing bad smells gener
in lavatories, dust binds, cattle stalls and the like. 2
as 590029 (2pp931)

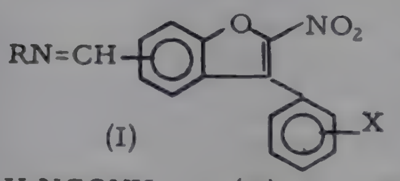
RIKL ★ D22 42341B/22 ★US 41

**2-Nitro-3-phenyl benzofuran-carbox:aldehyde(s) and de
useful as antimicrobial agents**

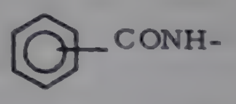
RIKER LABS INC 26.06.78-US-919414

B02 C02 E13 (15.05.79) C07d-31/34

Novel benzofuran derivs. are of formula (I) where R



(I)



(II)

H_2NCONH- or (II); X is H, halogen, CH_3 or CH_2O.

(I) stop or inhibit growth of bacteria. 26.6.78 as
919414 (-pp963)

DOWC D22 79344X/43 #US 415

**Water absorbent, cross linked acrylic fibres and films - from a
of carboxyl contg. acrylic copolymer, and polyamido-polymin
epichlorhydrin cross linker**

DOW CHEMICAL CO 07.04.75-US-565880 (27.09.76-US-727

*A96 F07 G02 P32 +P42 P73 (A14) (15.05.79) *BE-840
B05d-03/02 B32b-27*

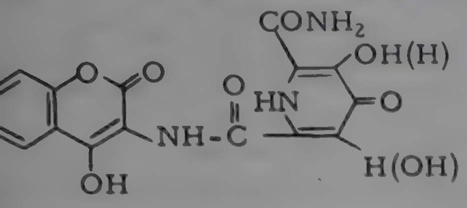
Prepn. of an absorbent article coated with a dry, wat
swellable polyelectrolyte comprises (1) forming a so
(a) water and/or lower alcohols, (b) 5-60 wt.% w.r.t.
of ⩾1 carboxylic polyelectrolyte and (c) a water-solub
polyamidopolyamine/epichlorohydrin adduct in an amt
cure (b); (2) coating the soln. on a thin article and (3)
ing to crosslink the polyelectrolyte.

Pref. the article is a natural or synthetic fibrous s
strate, a synthetic film or a foamed polymer. Use of
gives faster cure rates at low temps. cf. e.g. polyhal
-anols. Prods. are e.g. surgical sponges, catamenia
-pons, diapers, meat trays, paper towels, disposable

3 Div ex 4076673 (4pp992)

D22 84365A/47 =US 4154-938
position prods. of rubradirin antibiotics - useful as cterials, UV stabilisers for polyolefin and pharmaceutical ediates
OHN CO 06.02.78-US-874767 (05.05.77-US-793785)
*) B02 E13 (15.05.79) *DT2816-052 C07d-405/14*

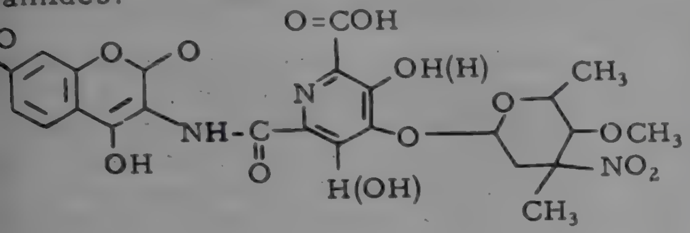
cpds. are of formula (I) and its base salts.


(I)

(I) is prepd. by acid hydrolysing rubradioni and reacting one of the prods. with a prim. amine, e.g. ethylamine. (I) are used V screeners in the plastics industry. 31.8.78 as 89 (+ 6.2.78-US-874767) (7pp976)

D22 84365A/47 =US 4154-939
mposition prods. of rubradirin antibiotics - useful as acterials, UV stabilisers for polyolefin and pharmaceutical mediates
PJOHN CO 06.02.78-US-874767 (05.05.77-US-793785)
*60 B02 E13 (15.05.79) *DT2816-052 C07d-405/14*

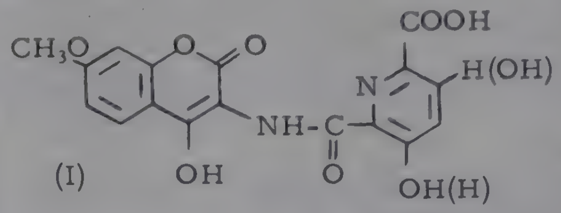
cpds. are of formula (I): and its base salts, esters amides.



(I) is obtd. by reacting rubradirin with an amine, e.g, aq. methylamine. (I) are used as UV screeners in the plastics industry, e.g. they can be used in polyolefin resin compsns. for plastic applications to prevent degradation by sunlight. 31.8.78 as 938602 (+ 6.2.78-US-874767) (7pp976)

UPJO D22 84365A/47 =US 4154-940
Decomposition prods. of rubradirin antibiotics - useful as antibacterials, UV stabilisers for polyolefin and pharmaceutical intermediates
UPJOHN CO 06.02.78-US-874767 (05.05.77-US-793785)
*A60 B02 E13 (15.05.79) *DT2816-052 C07d-405/14*

Pyridine cpds. of formula (I) and their base salts, esters and amides, pref. ethylamide, are novel.



(I) is obtd, by base hydrolysis of antibiotic rubradirin B. It is a UV screens in the plastics industry.

31.8.70 as 938687 (7pp976)

See Also
D13 DS 2552638 D15 J5 4051250 D21 EP 2064

D23: OILS; FATS; WAXES

C- ★ D23 40648B/22 ★BE-873-680
ctional crystallisation of fats esp. butter and palm oil - using low s. of solvent at moderate temps.
BIOCELL SRL 15.12.78-IT-030882 (24.01.78-IT-019540)
(D13 D21) (16.05.79) C11b

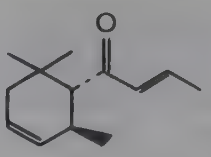
e process for fractionating animal or vegetable fats in- 3 well defined fractions which are a high melting solid, semi-solid of melting properties similar to cocoa butter d an oil, comprises the following (a). The fat is dissol- d in 1.5-7.5 ml of solvent per gm. of fat, crystallised 14-16°C, then filtered to obtain the 1st fraction of m.pt ove 45°C. (b) The filtrate from (a) is crystallised at 6°C and then filtered to give the 2nd fraction of m.pt. -42°C. Both fractions are washed with cold solvent at emp. below the respective crystallisation temp. (c) e solvent from (b) is removed to obtain the 3rd oil frac- n.

A confectionery fat comprises 1-99% 1st fraction and 99% cocoa butter. A further confectionery fat com- ises 5-20% 1st and 80-95% 2nd fractions given a fat of .pt. above cocoa butter. An oil for salad, cooking and ying comprises 1-99% 3rd fraction and 1-99% olive, pea- t, soya, corn, palm, sunflower, safflower or colza oils

The products are used in food, partic. as above, cos- etic and pharmaceutical compsns. They are also used obtain fatty acids and flavouring concentrates. The pro- ess is carried out at moderate temps. and uses less sol- ent and present processes. The products retain their uttery flavour and smell during processing under modera- e conditions. 24.1.79 as 873680 (15pp597)

NFL ★ D23 41095B/22 ★GB 2008-115
ure trans, trans-delta-damascone - useful as organoleptic agent in erfumes, medicaments, foodstuffs, tobacco etc.
INT FLAVORS & FRAGR INC 27.07.78-US-928718 (15.11.77-US-851727)
B07 E15 (B05 D13 D18 D21) (31.05.79) A61k-07/46 C07c-49/61

Pure trans, trans-Δ-damascone of formula (I) is new. Compsns. contg. > 50% (I) are new.


(I)

(I) has useful organoleptic properties, esp. in perfumes, perfumed articles, foodstuffs, foodstuff flavouring compsns., chewing gum, toothpaste, medicaments, medicinal prods. tobaccos, tobacco flavouring compsns., tobacco substitutes etc. It is stable, non-toxic and blends well with other ingredients and it gives a unique flavour and aromatic nuance. Compsns. contg. > 50% (I) can also be used. 14.11.78 as 044407. (25pp1248)

TEIJ ★ D23 41564B/22 ★J5 4050-568
Polyester extrusion-foams prodn. - by mixing aromatic polyester with di:epoxy cpds. and montan wax salts, and extruding and foaming in presence of low b. pt. materials
TEIJIN KK 30.09.77-JA-116651
A23 (A60) (20.04.79) B29d-27 C08j-09/04

Polyester extrusion-foams are produced by mixing aromatic polyesters with (A) 0.05-5 wt.% (of the polyester) of diepoxy cpds. and (B) 0.05-3 wt.% of montan wax salts and/or montan wax ester salts, extruding and foaming the mixts. in the presence of (C) 0.05-50 wt.% of the matters having b.pts. of <200°C at ordinary pressure forced into the system.

Polyester foams having excellent external appearance and homogeneous and fine bubbles can be produced stably and easily. 30.9.77.as 116651 (6pp156)

TSUC/ D23 51159Y/29 =J7 9010-563
Viscous, antiseptic, antifungal liq. from rice bran oil or wax - by extracting wtih hot methanol
TSUCHIYA T 00.00.76-JA-150324
*C03 (08.05.79) *J52068-211 C11b-05 C11b-07 + A23l-03/34*

Method comprises extracting (a) distn. residue of dark oil obtd. from rice bran alkali oil foots or monohydric lower alcohol ester, (b) high b.pt. (>200°C) fraction obtd. by molecular distn. of rice bran oil, dark oil or its monohydric lower alkyl ester, (d) rice bran oil crude wax or (3) gum, with hot MeOH.

Alternatively viscous residue from the extn. or from (c) alkali or foots. is extd. with alkaline soln. of monohydric lower alcohol of solvent contg. monohydric lower alcohol, and the extract made acidic. Extracting liq. is cooled opt. after concentrating by distn. and the viscous liq. is obtd. as the lower layer.

The viscous liq. prevents hydrolysis-type acidification and ketone-type acidification of oils and fats. 12. 6. 73 as 150324/76 Div. ex 66641/73 C11b-7/00, A231-3/34, C11b-5/00 (8. 5. 79) TSUCHITA T (2pp) (J52068211)

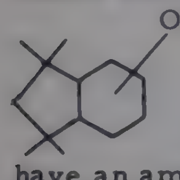
INFL D23 08121S/04 =NL-160-238

Indane derivs as odorants

INT FLAVORS & FRAGR INC 18.08.69-US-851090 (18.08.69-US-851048)

*E14 (15.05.79) *BE-753-751 A61k-07/46 C07c-29/20 C07c-35/32 C11b-09*

Indole derivs. of formula:



are prepd. by hydrogenating 1,1,2,3,3-pentamethylindane-4-ol or -5-ol.

The cpds. have a fruity aroma and a smell of musk acid are used as prepns. when mixed with other materials. They have an amber colour. 15. 1. 76 as 000397 (6pp549).

ANIS D23 09409Y/06 =SU-617-009

Dimethyl octenyl nitrile and dimethyl hydroxy octyl nitrile - prepd. from (3,7)-dimethyl-(3)-hydroxy (6)octenyl nitrile

ANIC SPA 08.08.75-IT-026221

*E16 (07.09.78) *BE-844-977 +C07c-12/30*

3, 7-Dimethyl-3-hydroxy-octanenitrile (I) and 3, 7-dimethyl-2-octent-nitrile (II) have been prepd. The cps. are odourants used in perfumery esp. mixed with other cpds. in soaps, cosmetic, deodorants, etc. Cpd. (II) esp. can replace 3, 7-dimethyl-2, 6-octenenitrile ("greranonitrile") as it has a milder aroma note and a batter chemical stability. The cpds. are also useful intermediates.

Cpd. (I) is prepd. by hydrogenating 3, 7-dimethyl-3-hydroxy-6-octenenitrile. Cpd. (II) is prepd. by heating (I) with basic aluminium oxide.

Simone, R. de., Platone, E., Morelli, M. Bul. 27/25. 7. 78. 6. 8. 76. as 388805 (2pp)

MOFA= ★ D23 41848B/22 ★SU-617-066

Spent nickel-ceramic catalyst regeneration - by treating with aq. alkali and aq. surfactant contg. flotation agent, useful in vegetable oil hydrogenation

MOSC FATS INST (SAFA=) 28.07.74-SU-038423

J04 (26.06.78) B01j-37 C07b-01

Nickel-ceramic catalyst, used in hydrogenation of vegetable oils and fats, is regenerated by treatment with aq. alkali soln. and non-ionic surface active agent. The activity of the regenerated catalyst is improved if the regeneration soln. additionally contains flotation agent.

The flotation agent comprises (in wt. %): sodium metasilicate (I) 1. 5-2; sodium tripolyphosphate (II) 0. 3-0. 5, calcined soda (III) 0. 5-1. 0 and water the rest.

Raemskaya, N. P., Filimonova, Z. V. Gorenshtein, B. M et al. Bul. 28/30. 7. 78. 28. 7. 74. as 038423 (3pp938)

HUNT- ★ D23 42223B/22 ★US 4154-408

Flaking mill with adjustable roller spacing - maintained by hydraulic and pneumatic rams providing shock absorber

HUNT MOORE N ASSOC 19.12.77-US-861871

P41 (15.05.79) B02c-04/32

A flaking mill comprises a pair of rollers which are attached to pivots so that the roller spacing can be adjusted. A serially connected hydraulic and pneumatic ram bias the rollers together until a spacing set by a limit stop is reached. The pressure in the pneumatic ram is greater than in the hydraulic ram and significantly above the normal operating pressure of the rollers of the mill. If an obstruction passes between the rollers the hydraulic ram yields and the pneumatic ram acts as a shock absorber. Pref. a hydraulic damper is provided on the pneumatic ram.

The appts. flakes oil seeds. Obstructions can pass between the rollers. 19. 12. 77 as 8618 71 (7pp295)

INFL D23 67315A/38 =US 4

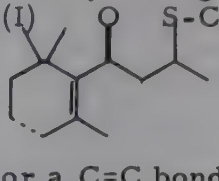
**Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo hexa
used as flavourants, prepd. by reacting damasco
damascenone with methyl-mercaptan**

INT FLAVORS & FRAGR INC 03.03.77-US-774055 (21.06
917662)

*E15 (D13) (15.05.79) *DT2808-710 +C11d-03/50 C11d-0*

The aroma of a soap or detergent is augmented or e
ced by adding an organoleptic property-modifying am

(I)



a pure, synthetically produced 1
(methylthio)butyryl)-2, 6, 6-trime
cyclohexene or the 1, 3-cyclohexa
analog of formula (I).

In (I) the dashed line is a C-C
or a C=C bond. 21. 6. 78 as 917662 Div ex 4107209 (2

BADI ★ D23 42305B/22 ★US 41

**Recovery of tall oil from tall oil soap - by treatment with su
acid and a terpolymer of an unsaturated acid**

BASF WYANDOTTE CORP 21.02.78-US-879076

A97 F09 (15.05.79) D21c-11

Tall oil is recovered fromthe acidulation of tall oil s
with H_2SO_4 by mixing with an acid polymer. The terpo
consists of 60-88wt. % of 3-4C α-β unsatd. acid units,
wt. % 1-18C alkyl ester of 3-4C α-β unsatd. acid unit
4. 5-20 wt. % allyl alcohol units. The terpolymer is us
10-500 pts. per million (ppm) by wt. based on the aci
tion reaction mixt.

Pref. the α-β unsatd. acid is acrylic acid; the alky
ester can be hydroxyethyl methacrylate or an alkyl (m
acrylate, e.g. butyl acrylate or methyl methacrylate.

Tall oil soap is recovered from the black liquor wi
drawn from the digester during pulping of ping or fir
acidulated. The use of the terpolymer increases the a
of tall oil sepd. by $\leqslant$ 44%. 21. 2. 78 as 879076 (4pp1302)

CALG ★ D23 42310B/22 ★US 415

**Refining phospholipid contg. vegetable oils - by degumming,
carbon treatment and steam deodorisation**

CALGON CORP 22.05.78-US-908175 (17.02.77-US-769818)

(D13) (15.05.79) C09f-05/10 C11b-03/04

Refined edible vegetable, oil, having a phospholipid co
measured as P, below 5ppm, and peroxide content be
meq. per Kg, is prepd. by (a) degumming; (b) passing
oil through a bed of granular activated carbon, and (c)
jecting the oil to steam distillation at reduced pressur

The prod. has acceptable taste, colour, odour and
age stability, as is obtd. in fewer process stages.
22. 5. 78 as 908175 (13pp955)

GIVA ★ D23 42314B/22 ★US 415

**Aldehyde or ketone prodn. from alcohol(s) - by oxid
dehydrogenation over gold catalyst**

GIVAUDAN CORP 21.04.75-US-570139 (30.05.73-US-365340

E19 (15.05.79) C07c-45/16

Aldehyde and ketones (I) $R-CO-R_1$ are prepd. from the
corresp. monohydric alcohol (II) $R-CHOH-R_1$ by treatment in the vapour phas e with O_2 at 250-600° in the pr
ence of an Au catalyst.

R is opt. branched 2-16C alk(en)yl, 5-16C cycloalk(
yl, or 6-16C mono- or dinuclear aralkyl, all of which
$\nless$ 1H α and β to the CH(OH) gp. (i.e. >CH-ÇH-CHOH-
R_1 is H, opt. branched 1-16C alk(en)yl, 5-16C cycloal
(en)yl, or 6-16C mono- or dinuclear aryl or aralkyl.

Method affords high purity (I) in high yield and sele
tivity, with min. by-prod. formation. Pure (I) are use
in perfume compsns. for influencing the odour of a ran
of essential oils, etc. 21. 4. 75 as 570139 (7pp478)

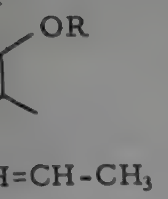
HAAR D23 65705W/40 =US 4154

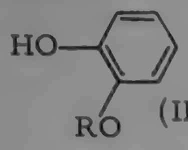
**2-Alkoxy-4-(1-propenyl)-phenols prepn - by reacting 2-alk
phenols with propionaldehyde and heating in presence of base**

HAARMANN & REIMER GMBH 19.04.74-DT-418973

*B05 E14 (D13) (15.05.79) *DS2418-973 +C07c-41*

The prodn. of 2-alkoxy-4-propan-1-yl phenols of formu
(I) is described. (where R is Me or Et).





(II)

Method comprises con-densing a 2-alkoxy phen-ol of formula (II) with propionaldehyde in the presence of an acid catalyst, and heating the resulting condensn prod. to 180-250° C in the presence of
0% based in the wt. of the condensn. prod. of a basi
catalyst which is alkali metal hydroxide or alcoholate
f. the condensn. is at 60-90° C and the thermal
ng is at 210-240° C. 21. 3. 71 as 779660 (+14. 4. 75-
3092) (5pp964)

See Also

D13 NL 160153 D13 NL 160154 D13 US 4154696
D13 US 4154728 D13 US 4154763

D24 : SOAP ; SOAP DETERGENTS

D24 05547R/04 =NL-160-329
y to moderately foaming detergents
OCTER & GAMBLE CO 22.07.68-US-746274
*(15.05.79) *DT1936-843 C11d-09/34 +B01d-19/04 C11d-/36*

foam washing agent consisting of 2-30 wt. % active
ing agent and 2-65 wt. % intensifier together with a
suppressor.

he foam suppressor present is 0. 1-8 wt. % fluoroalkyl
of formula $R_yPO(OM)_{3-y}$ where R = $R_1C_mF_{2m}$·
$_n$O and/or $R_1C_mF_{2m}\cdot C_nH_{2n}$, m being 1-12; n being 1-
n+n being 2-18; y being 1. 0-2. 5.
the molecules with ≥ 2 substituents R, > 1 may be H,
H or F and M = H, alkali metal, ammonium or substd.
onium. 22. 7. 69 as 011186 (8pp549).

COLG D24 08354R/06 =NL-160-348
Detergent compositions contg water insol solid cation - exchange material
COLGATE PALMOLIVE CO 09.03.66-US-532902
*A11 (15.05.79) *GB1181-077 C11d-03/38 +D06l-01/12*

Textiles are washed by contacting with a washing material contg. water and washed. The washing process is carried out in the presence of a shaped material, which contains a water soluble cation exchange material e. g. a tissue of phosphorylated cellulose having a phosphorus content of 5. 2-5. 4 wt. %.

The washing material itself is solid with a coating of the cationic exchange material, pref. in the form of a thin tissue-like structure. 27. 2. 67 as 003120 (6pp549).

D25 : OTHER DETERGENTS

H D25 76603U/50 =DS 2225-367
ycolic acid prodn - by oxidn of diglycol with dinitrogen tetroxide
IOECHST AG 25.05.72-DT-225367
*17 (23.05.79) *NL7306-985 C07c-59/23*

lycolic acid is prepd. by reacting N_2O_4 or NO_2 dioxide
diglycol at 0-110°C. The molar ratio of diglycol to
$_4$ is 1:2 to 1:8. Reaction is pref. carried out in a sol-
t inert to reactants and prods. e.g. chloroform or me-
lene chloride.

Diglycolic acid is prepd. by a single stage process and
good yield. It is useful as a builder for detergents, as
ionomer for polycondensates and as a component of pla-
cisers, etc. 25. 5. 72 as 225367 (4pp068)

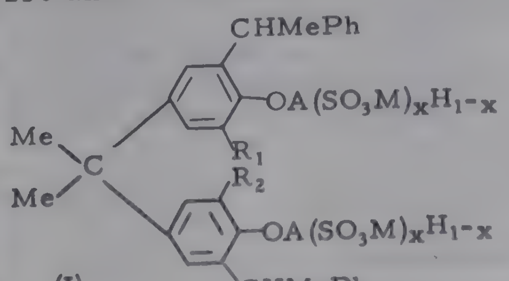
RH ★ D25 40739B/22 ★DT 2751-354
stalline zeolite and sodium tri:phosphate mixt. prepn. - by ultaneously spray-drying zeolite and sodium orthophosphate ns. or dispersions
HOECHST AG 17.11.77-DT-751354
E33 (E34) (23.05.79) C11d-03/08 C11d-11/02

the prepn. of crystalline zeolite and $Na_5P_3O_{10}$ mixts. by
ray-drying aq. Na_3PO_4 solns. or suspensions into a com-
rtment into which the zeolites are introduced simultane-
sly, the Na_3PO_4 solns. or suspensions used have an Na:
mol. ratio which decreases by 0.01 for every 10 wt. %
olite in end prod., starting with theoretical Na:P mol.
tio 1.66 for a zeolite-free $Na_3P_5O_{10}$. The zeolites are
troduced into the compartment as an aq. suspension. The
olite suspension is sprayed at a distance away from
thophosphate, so that the spray-cones of the 2 compon-
ts touch only when the zeolite particle surface is already
y and the phosphate particles are at least partly conden-
ed

are used as builders in low phosphate detergent compsns. The mixts. are finely-divided, free-flowing and resist storage. Diphosphate formation is suppressed on controlling Na:P mol. ratio. Condensn., zeolite drying and mixing take place in 1 step and reactor. 17.11.77 as 751354 (9pp200)

BADI ★ D25 40754B/22 ★DT 2751-519
Surface active phenol derivs. useful as dispersants - are prepd. by alkoxylating, sulphating and neutralising reaction prods. of styrene and bisphenol/A
BASF AG 18.11.77-DT-751519
A25 E14 (23.05.79) C07c-139 C07c-141/08 C08g-65/08 C11d-01/24

New surface active phenol derivs. have formula (I), (where R_1 and R_2 are H or -CHMePh; M is an alkali- or opt. substd. ammonium cation; x is 0 to 1 and A is an ethylene oxide and/or propylene oxide polymer gp. contg., in all, 5-250 alkylene oxide gps.). In pref. cpds., (Ia), R_1 and R_2 are -CHMePH and A is $-(C_3H_6O)_m(C_2H_4O)_n-$, in which m = 0-250 and n = 10-250.



(I)

Some (I), esp. (Ia) have outstanding dispersant activity.

18.11.77 as 751519 (10pp200)

PROC ★ D25 40886B/22 ★DT 2849-931

Textile softening compsn. - contains cationic textile softener, esp. quat. ammonium or imidazolinium salt, and specified polymeric cationic salt

PROCTER & GAMBLE CO 21.11.77-GB-048377

A87 E19 F06 (23.05.79) C11d-01/64

Textile treatment compsn. comprises (a) a cationic textile softener contg. either 1 16+ C alkyl or alkenyl gp. or 2 alkyl or alkenyl gps. each contg. 10-22C. and also (b). 0.001-0.7 wt.% of 1 polymeric cationic salt (I).

(I) consists of (i) cationic polysaccharide gums; (ii) cationic starch or starch derivs.; (iii) vinyl pyridine (co)-polymers or their salts; (iv) cationic PVA; (v) cationic vinyl pyrrolidone copolymers; (vi) copolymers of a di-1-3C-alkyl-aminoalkyl methacrylate with styrene or a neutral acrylate ester; or (vii) condensn. copolymers contg. the repeat unit ($-R_{12}-NR_{11}-R_{12}-OOC-R_{13}-COO-$) (where R_{11} is H, 1-6C alkyl, or $R_{12}OA$; A is H, 1-20C acyl or a quat. N-contg. gp.; R_{12} is 1-6C alkylene, -hydroxy-alkylene-, 2-6C alkenylene or an arylene gp.), and the copolymers are made cationic either by the presence of quat. gps. in which some or all N atoms in structure are made cationic.

(I) also consist of (viii) condensn. copolymers contg. the repeat unit $-(-OC-R_{13}-CONH-R_{15}-NR_{17}-R_{16}-NH)-$ (where R_{15} and R_{16} are 1-6C alkylene and R_{17} is H or 1-6C alkyl) and the copolymer is made cationic at some or all N atoms which donot adjoin the -CO- gps.; (ix) condensn. copolymers contg. the repeat unit $-(-O-CH_2-CH(OA)-CH_2-OOC-R_{13}-CO-)-$ (where 1 or all A are quat. N-contg. gps. balance being H gps.), and (x) quaternised polyethylene imine contg. $\geqslant$10 ethylene imine gps./mol.

The compsn. opt. also contains a water-insoluble nonionic textile treatment agent (c). Wt. ratio of (c), if present, to (a) + (b) is $\leqslant$1 : 10.

The compsns. are used esp. for treating cellulose-contg. textiles. The cationic salts enhance the activity of the cationic softeners. 17.11.78 as 849931 (35pp200)

FARH D25 40739B/22 =EP ---2-018

Crystalline zeolite and sodium tri:phosphate mixt. prepn. - by simultaneously spray-drying zeolite and sodium orthophosphate solns. or dispersions

HOECHST AG 17.11.77-DT-751354

*E33 (E34) (30.05.79) *DT2751-354 C11d-03/06 +C11d-11/02*

D/S: E(BE, DT, FR, GB, NL, SW).

Prepn. of crystalline zeolite and $Na_5P_3O_{10}$ mixts. comprises spray-drying aq. Na_3PO_4 solns. or suspensions into a region into which the zeolites are introduced simultaneously. The Na_3PO_4 solns. or suspensions used have an Na : P mol. ratio which decreases by 0.01 for every 10 wt.% zeolite in end prod., starting with theoretical Na : P mol. ratio 1.66 for a zeolite-free $Na_3P_5O_{10}$.

The zeolites are introduced into the region as an aq. suspension. The zeolite suspension is sprayed at a distance away from orthophosphate, so that the spray-cones of the two components touch only then when the zeolite particle surface is already dry and the phosphate particles are at least partly condensed.

Mixts. contg. 10-50 wt.% zeolites in addn. to $Na_5P_3O_{10}$ are used as builders in low phosphate detergent compsns.

The mixts. are finely-divided, free-flowing and stable. Diphosphate formation is suppressed on controlling Na : P mol. ratio. Condensn., zeolite drying and mixing take place in 1 step and reactor.

4.11.78 as 101313 (10pp200).

(G) ISR: DT2742484; DT2529685; DT2510675; US4019998

BADI D25 40754B/22 =EP ---2-033

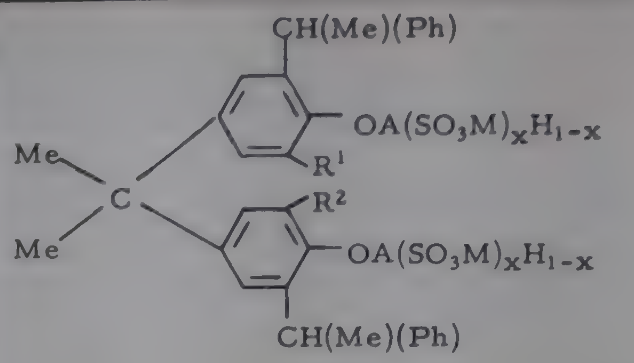
Surface active phenol derivs. useful as dispersants - are prepd. by alkoxylating, sulphating and neutralising reaction prods. of styrene and bisphenol/A

BASF AG 18.11.77-DT-751519

*A25 E14 (30.05.79) *DT2751-519 C07c-139 C07c-141/08 +C08g-65/08*

D/S: E(BE, CH, DT, FR, GB, NL).

Surfactant phenol derivs. have formula (I)



(I)

(where R^1 and R^2 are H or -CH(Me)(Ph); M is an a
or opt. substd. ammonium cation; x is 0 to 1 and A
ethylene oxide and/or propylene oxide polymer gp.
in all, 5-250 alkylene oxide gps.). In pref. cpds., (
and R^2 are -CH(Me)(Ph) and A is $-(C_3H_6O)_m(C_2H_4O)$
which m = 0-250 and n = 10-250.

Some (I), esp. (Ia), have outstanding dispersant a
ity.

9.11.78 as 101335 (11pp200).

(G) ISR: US2174761; US3395170; DS2310426.

PROC ★ D25 40967B/22 ★EP

**Granular detergent contg. alkoxylated cationic surfactan
anionic and alkoxylated nonionic surfactants, giving good
and oil removal**

PROCTER & GAMBLE CO 17.11.77-GB-047981

A97 E16 (E14) (30.05.79) C11d-01

D/S: E(BE, CH, DT, FR, GB, NL).

Granular detergent contains as surfactant system (a
$\geqslant$5% cationic surfactant of formula $R^1R^2{}_mR^3{}_{3-m}N$
(I) and (b) $\geqslant$30% mixt. of anionic (II) and alkoxylate
nonionic (III) surfactants in wt. ratio 20:1-1:20. (R^1
6-24 C alk(en)yl or 6-12C alkaryl; each R_2 is
$(CnH_{2n}O)_xH$; each R_3 is 1-12C alk(en)yl, aryl or 1-6
(sic) alkaryl. n = 2-4; x = 1-14 (the total of $C_nH_{2n}O$
is 1-14); m = 1-3 and A^- is a counteranion).

Esp. pref. (I) have formula $R^1(C_nH_{2n}OH)_m(CH_3)_{3-}$
N^+A^- with R^1 = 10-16 C alk(en)yl; m = 1-2; n = 2-3;
no. of C in R^1 and $(R_3)_{3-m}$ $\ngtr$ 17.

Used for washing fabrics where compsns. give ex
ent removal of greasy and oily soils. They are relat
insensitive to hardness ions and to the nature of the
er, and have superior physical (esp. odour) propertie
when prepd. by spray drying.

06.11.78 as 200290 (33pp1251).

(E) ISR: US3993573; DT2521799; FR2368570; US37294
US3539520; US3951879.

PROC ★ D25 40968B/22 ★EP -

**Textile conditioning compsn. - with low content of cationic mo
and including a polymeric cationic salt**

PROCTER & GAMBLE CO 03.04.78-GB-012926 (21.11.
048376)

*A87 F06 (30.05.79) C08b-15/06 C11d-01/83 C11d-03/37
13/46 D06m-15/04*

D/S: E(BE, DT, FR, NL).

Intermediate priority: 27.2.78 - GB-07687.

A textile conditioning compsn. comprises (a) a catio
surfactant (b) a water insoluble nonionic textile cond
ing agent and (c) 0.001-1.4 wt.% of a polymeric catio
salt, the wt. ratio of (a) + (c) to (b) being < 10:1, and
pref. 3:1 to 1:1.

The compsn. contains a larger amt. of nonionic co
ponent, which is cheaper than the cationic component
than prior art compsns.

9.11.78 as 200295 (48pp1355).

ISR: BE844122; DT2155941; FR2535633; DT272481

EXQU- D25 05580Y/04 =GB 15

**Washing and rinsing composition for softening textiles - no
surfactant, softening agent and polyglycol difatty acid ester**

EXQUISIT-KOSMETIK 02.07.75-DT-529444

*A97 (31.05.79) *BE-843-687 C11d-01/38 C11d-03/37 +
10/02*

Liq. fine washing agent which has good washing prop
an excellent fibre-caring effect and bestows a soft fe
textiles, comprises an aq. base and, calculated on th

8-20C fatty acid polyglycol diester(s) and (c) 1-7.5- ationic component(s) with textile softening proper-

f. (a) is 10-20C alkylpolyglycol ether and/or 6-20C henolpolyglycol ether and (c) is a di-10-20C alkyldi- ylammonium halide. 1.7.76 as 027474. (7pp984)

★ D25 41381B/22 ★J5 4050-010

ent compsn. for cleaning noodle boiling appts. - comprises alkali and hypochlorite

-SAN KOGYO KK 28.09.77-JA-116278

P28 P43 (D11) (19.04.79) A47j-27/14 B08b-03/08 C11d- 60

ompsn. for use in noodle boiling appts. for remo- he soil which has stuck to the kettle or basket, sts of caustic alkali and hypochlorite as major rials. The proportion of caustic alkali to hypochlor- 1 part caustic alkali to 0.1-100 parts hypochlorite . alkali and pure.

ils stuck to the boiling kettle or basket for the es are completely dissolved and removed. A typical sn. comprises 20 pts. wt. aq. soln. of Na hypo- ite having 12 wt.% concn. 5 pts. wt. K pyrophosphate . wt. KOH, 5 pts. wt. Na metasilicate, and 65 pt. vater. 28.9.77. as 116278 (2pp126)

★ D25 41382B/22 ★J5 4050-011

gent compsn. for cleaning noodle boiling appts. - comprises ic alkali and a sodium phosphate sodium hypochlorite plex

AI-SAN KOGYO KK 28.09.77-JA-116279

34 P28 P43 (D11) (19.04.79) A47j-27/14 B08b-03/08 C11d- 7/60

compsn. for use in noodle boiling appts. for remo- the soil which has stuck to the kettle or basket, sists of caustic alkali and a cpd. expressed by the nula $(Na_3PO_4.11H_2O)_4NaOCl$ (I) as major materials. proportion of caustic alkali to (I) is 1 part stic alkali to 1-100 (I) by wt.

oils stuck to the boiling kettle or basket for noodles completely dissolved and removed. A typical psn. comprises 80 pts. wt. $(Na_3PO_4.11H_2O)_4NaOCl$, s. wt. K pyrophosphate, 10 pts. wt. NaOH, and 5 wt. Na metasilicate. 28.9.77. as 116279 (2pp)

S- ★ D25 41383B/22 ★J5 4050-012

ergent compsns. for cleaning noodle boiling appts. - comprises stic alkali and a salt of di:chloro isocyanuric acid

DAI-SAN KOGYO KK 28.09.77-JA-116280

E34 P28 P43 (D11 E13) (19.04.79) A47j-27/14 B08b-03/08 C11d- 07/60

e compsn. for cleaning the boiling kettle or basket noodles consists of caustic alkali and a salt of di- loro isocyanuric acid. The proportion of caustic alkali salt is 1 part caustic alkali to 0.1-100 parts of the lt.

Soils stuck to the boiling kettle or basket for noodles e completely dissolved and removed.

A typical compsn. comprises 5 pts. wt. sodium di- loro isocyanurate, 40 pts. wt. potassium pyrophosphate, pts. wt. KOH, 45 pts. wt. sodium metasilicate. .9.77. as 116280 (3pp126)

DO/ ★ D25 41523B/22 ★J5 4050-511

l stain removal agent - comprises super-active cleaner (Foresight M) blended with inorganic material such as calcium or agnesium oxide

KUDO K 30.09.77-JA-116858

G04 (20.04.79) C11d-10/02

n oil stain removal agent is composed of (A) 100 pts. wt. super active cleaner (i.e., ''Foresight F 101'', RTM oresight Co.) and (B) 10-1500 (100-1200)pts. wt. of norganic materials contg. CaO, CO_2, MgO, Fe_2O_3, P_2O_5 iO_2, Al_2O_3 and H_2O. It may be obtd. by blending (A) nd (B) under agitation.

The pasty or powdery prod. is anticorrosive, harmless, nd has antirusting, deodorising powers. It resists burn- ng and ignition and can be recovered and reused. The pasty material is useful for cleaning ventilating fans, as ranges, cooking ovens, electrical appliances, etc. [illegible] the cleaning or poli- shing of cars, household furnishings, precious metals etc. 30.9.77. as 116858 (5pp170)

LIOY ★ D25 41524B/22 ★J5 4050-512

Prepn. of additive for detergent powder - by heating aq. active organic cpd. in presence of supersonic waves then cooling with inorganic cpd. which takes up water of crystallisation

LION FAT & OIL KK 30.09.77-JA-117439

A97 E17 (E16 E33 E34) (20.04.79) C11d-11/04

Mixt. of organic cpd. which is solid at ordinary temp. and water in an amt. of 0.5-2 times the wt. of water of crystallisation of an inorganic cpd. which can crystallise stably at ordinary temp. by taking up water of crystallisation, is melted by heating under supersonic waves, then it is mixed with the inorganic cpd. and cooled. A powdery or granular cleaner (e.g., cleaner, cleanser, detergent, soap, shampoo, etc. is obtd. with improved qualities which are maintained over a long period. Softening or melting by high temp. and hygroscopic solidification of the cleaner are prevented.

Pref. micro-capsule of organic cpd. of 0.1-100µ size covered with the inorganic cpd. are prepd. The organic cpd. is esp. a material which is solid at 20-25°C and melts at 30-120°C (pref. 40-80°C) e.g. cetyl alcohol, stearyl alcohol, lauric acid, palmitic acid, stearic acid, paraffin wax, mono-, sesqui- or di-fatty acid ester of sorbitane, polyethyleneglycol of mol.wt. 1000-50,000 distearyldimethylammoniumchloride, stearyldimethyl benzylammonium chloride, stearyltrimethylammonium chloride, stearyltrimethylammonium chloride, etc. As the inorganic cpds. are materials which are stable at 20-25°C and crystallisable with water of crystallisation. e.g., sodium sulphate, magnesium sulphate, magnesium chloride, calcium chloride, sodium carbonate, ortho-sodium phosphate, sodium tripolyphosphate, sodium pyrophosphate, etc. 30.9.77. as 117439 (5pp17)

MITU ★ D25 41603B/22 ★J5 4050-675

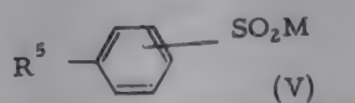
Textile scouring and cleaning agent - polyoxyalkylene alkyl ester, oxypropylene polyoxyethylene alkyl ether, fatty acid soap, alkylbenzene sulphonate and e.g. alkyl sulphonate

MITSUBISHI CHEM IND KK 22.09.77-JA-114417

A97 E19 F06 (A25) (20.04.79) C11d-01 D06l-01/12

Compsn. comprises polyoxyethylene alkyl ester of formula $R'O-(C_2H_4O)pH$ (I) as nonionic surfactant (where R' is 11-20C alkyl ; p is 3-15); (b) 10-100 (20-70) pts. wt. oxypropylene polyoxyethylene alkyl ether of formula $R^2O-(C_3H_5O)_m-(C_2H_4O)_nH$ (II) (where R^2 is 7-15C alkyl m is 1-30; n is 3-20), and (c) 20-150 (30-130) pts. wt. alkyl sulphonate of formula R^3O-SO_3M (III) or oxyethylene alkylether sulphate of formula $R^4O-(C_2H_4O)qSO_3M$ (IV) (where R^3 and R^4 are each 11-20C alkyl; M is alkali metal-ammonium , lower alkyl ammonium or lower alkanol ammonium; and q is 1-6).

The addn. of (d) alkylbenzene sulphonate of formula (V) and (e) fatty acid soap of formula R^6COOM (VI) as 5-50 pts. and 4-50 pts. respectively per 100 pts. of (a) (by wt.) lowers foaming and improves detergency. In (V) and (VI), R^5 is 11-15C alkyl; and R^6 is 7-19C alkyl.



(V)

Compsn. is stable in alkali soln., low foaming and has good penetration, detergency and biodegradability. 22.9.77. as 114417 (8pp172)

CARL D25 39219F/00 =NL-160-162

Anti irritant skin cleaning compsn.

CINCINNATI MILLING 13.02.68-NL-002006

*B05 E19 (15.05.79) *NL6802-006 +A61k-07/40 C11d-03/16*

Washing agent used for kitchen cleansers, industrial cleansers, shampoos etc. contains a component for combatting or inhibiting skin irritation chosen from A, B or C. The component is soluble or colloidally dispersible in the vehicle.

(A) are salts with organic cations, low mol. esters or amides of opt. satd. polymerisation prod. of 2-4 mols. of 12-26C olefinically unsatd. fatty acid monomer, the prod. [illegible] 2-4 carboxyl gps. (B) is a polymerisation prod. as (A), in which >1 carboxyl gp. can be replaced by methylene with each having a polar substit. in the form of OH, low mol. acyloxy, amino, sulphate or quat. ammonium, where the N-substits. are 1-6C alkyl. (C) Esters and polyesters of the polymerisation prod. (A) and a polyoxyalkylene glycol having 2-30 oxyalkylene units, and 2-4C alkylene radicals.

The amino or amido gps. in (A) or (B) are opt. substd. by (in the case of amino an opt. further N-contg.) aliphatic or aromatic hydrocarbyl with 1-12C. The substits. form with the amino or amido a 3-6 membered ring opt. contg. other heteroatoms. 13.2.68 as 002006 (13pp913).

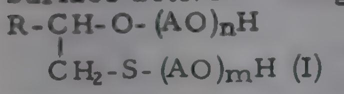
HENK D25 23232R/14 =NL-160-248

Thio ether alcohols as non ionic surface active agents

HENKEL KG AUF AKTIEN 08.10.68-DT-801712

*A25 E17 (15.05.79) *BE-739-766 C07c-149/18 + C11d-01/72*

Surface active-S contg. epoxy alkane adducts of formula (I)



$$\begin{array}{l}\mathrm{R\text{-}CH\text{-}O\text{-}(AO)_nH}\\ \quad|\\ \mathrm{\;\;CH_2\text{-}S\text{-}(AO)_mH}\quad\mathrm{(I)}\end{array}$$

where R = 8-18C alkyl, A = 2-4C alkylene, n = 0-30, m = 1-30 and (n+m) = 4-30 together with sulphated derivs., are prepd. by reacting 1-mercapto-2-hydroxyalkanes having 10-20C with a 2-4C epoxyalkane, in a molar ratio 1:4 to 1:30 then sulphating the prod. if necessary.

The cpds. are useful in textile cleaning. 4.9.69 as 013512 (6pp549).

EXQU- ★ D25 B/22 ★OE 7600-988

Liq. light duty detergent

EXQUISIT-KOSMETIK 12.02.76-OE-000988

(15.05.79) C11d-01/72

UNIL D25 55576V/31 =US 4154-694

Flowing cleaning compsn. contg. scouring bleaching agents - with particles of an alkaline buffer cpd. suspended together with other solids by means of a surfactant combination

LEVER BROTHERS CO 19.01.73-GB-002907

*(15.05.79) *DT2402-224 C11d-09/04*

Pourable liq. detergent compsn. is prepd. comprising an aq. detergent soln. having a yield stress value of 20°C of 1-21dynes/cm^2, and a buffering amt. of solid particles of an alkaline buffer having a solubility in water at 20°C of 0.0005-0.2 wt. pts. in 100wt. pts. of water and providing a pH of 10-13 dispersed in the soln. and retained in the dispersed state by the yield value characteristics.

Aq. detergent soln. contains an alkali metal 12-18C alkyl sulphate, plus a trialkylamine oxide, trialkylp
ate oxide or dialkylsulphoxide detergent-active cpd.
presence of an electrolyte with a univalent or divale
cation, and a three-dimensional network of insoluble
tangled filaments. Overall compsn. has viscosity at
of 1-60 poise at shear rate of 7sec^{-1}. Compsn. esp.
tains 0.02-5 wt. % sodium hypochlorite. 5.6.78 as 9
(+22.4.77-US-790162) (2pp931)

INTE- D25 88804X/48 =US 4

**Bleaching agents for domestic, fabric-washing detergent com
consisting of phthaloyl acyl peroxides hydrolysing rapidly
alkaline conditions**

INTEROX CHEM LTD 18.11.75-GB-047390 (13.05.75-GB-02

*A60 E14 F06 (15.05.79) *BE-841-717 C11d-07/54*

A bleaching or detergent compsn. contains a surfacta
builder salt and a bleaching agent. Bleaching agent co
ses a diacyl peroxide, ROOR', where R is phthaloyl an
R' is acyl. R and R' radicals are such that diacyl pe
des of formulae RCOOR, ROOR' and R'OOR' are solu
mildly alkaline aq. conditions.

Pref. R' is a phthaloyl, succinyl or glutaryl gp. c
further contains a persalt in a mole ratio to the acyl
xide linkage of 1:5 to 2:1. Diacyl peroxide bears a co
to reduce destructive interaction during storage with
components of the compsn.

Compsn. has bleaching activity at low washing tem
6.5.76 as 683653 (+18.11.75(2)-GB-047387/9) (9pp93

WITC ★ D25 42389B/22 ★US 41

**Sulpho-succinic acid ester-amide(s) - are surfactants use
detergents, emulsifiers etc.**

WITCO CHEMICAL CORP 25.10.77-US-845508 (23.12.
535763)

E19 (15.05.79) C07c-143/13 C07d-295

New sulphosuccinate ester-amides are of formula
$\mathrm{R\text{-}NX\text{-}CO\text{-}CH(SO_3M)\text{-}CH_2CO_2\text{-}CH_2CH(OH)\text{-}R_1}$ (I) (whe
M=alkali(ne earth) metal, NH_4, or H_2O-soluble amine
RNX=radical of 2-20C aliphatic non-tert. amine; X=H
1-5C alkyl; R_1=1-18C alkyl or Ph; provided total RNX
-$CH_2CH(OH)R_1$ is 7-35C, and difference between RNX
-$CH_2CH(OH)R_1$ is $\nless$2C).

(I) are surfactants useful as detergents, emulsifie
penetrating agents, stabilising agents, dispersants,
emollients etc. 25.10.77 as 845508 (6pp478)

CPI INDEXES

RTING PATENTEE INDEX (II)

y by section and overall, lists all current patents in
ee code order and, within a given patentee, in earliest
y date order. The first line gives patentee code,
t priority date, patentee name, CPI classes and finally
urrent patent number. The second line gives the first
f the title, followed by the accession number.

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EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
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Not in Basic Abstracts Journal

CLASS INDEX (IV)

kly only. Headings are all the CPI
ses within the section to which an
ting Bulletin relates, arranged in
erical order. Posted under each class
ding is a list, in country then patent
ber order, of all basic or equivalent
uments referenced or cross-
renced under that heading.

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     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

SIC NUMBER INDEX (V)

ekly by section and overall, lists all
ies by accession number. Each
ding consists of the accession
nber in bold, followed by the CPI
tion letters. There then follows a
of all the family members,
nmencing with the basic and
shing with the current week's
ent. For each family member the
l week of issue is quoted, and a
s sign indicates that a multiple
ority has been claimed.

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09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                                  49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                             49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                                  48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguis accepted West German specifications (DAS) from unexamined applications (OLS) which are given the nor DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7
Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

- 08.07.77 AARJIS POEFAB A/S D13 E17 #US 4154-749
arranging 1,2-di:glyceride to 1,3-di:glyceride - 08184B/05
) 29.04.74 ABBOTT LABORATORIES B04 D16 =CA 1053-548
zymatic analysis using NAD-NADH redox reaction - 77357W/47
) 31.03.75 ABBOTT LABORATORIES B04 D16 =CA 1054-085
okinase prodn from a contiguous live kidney cell culture - 05275X/03
) 21.11.77 ABBOTT LABORATORIES A96 B04 D17 *DT 2850-247
ucose polymer mixed soln. - 40906B/22
I= 17.01.77 AS BELO MICROBIOL D16 *SU -608-332
east biomass rich in carotenoid(s) - 41794B/22
E= 17.01.77 AS BELO PEAT INST D16 *SU -608-332
east biomass rich in carotenoid(s) - 41794B/22
P- 18.11.77 ABS PUMPEN GMBH D15 *DT 2751-509
/orm conveyor for sewage - 40751B/22
N 10.08.74 AGENCY OF IND SCI TECH B04 D16 =J7 9010-634
dsorption and desorption of lipid decomposing enzymes - 27132X/15
N 17.09.76 AGENCY OF IND SCI TECH A13 D16 (A35) =US 4154-653
owering mol. wt. of hydroxy-styrene polymers - 35591A/20
RI= 09.11.76 AGRIC MICROBIOL RES C03 D16 *SU -601-309
onidia material of helminthosporium fungi - 41786B/22
L 28.05.76 AIR LIQUIDE L' D14 =CA 1054-015
ryogenic embrittlement of seed husks for decortication - 84749Y/48
L 22.08.77 AIR LIQUIDE L' D15 *FR 2401-101
reating waste water by activated sludge process - 41032B/22
W- 02.09.77 AIRWICK IND INC D25 E37 =J5 4050-695
owdery carpet cleanser and deodorant compsns. - 24173B/13
N 27.09.77 AJINOMOTO KK D21 E12 *J5 4049-341
Dentifrice compsn. - 41297B/22
R 09.03.73 ALBRIGHT & WILSON LTD C01 D22 E12 F09 =OE 7402-015
Preservation of wood against fungal attack - 55267V/31
A 26.08.77 ALFA-LAVAL STALLTEC D15 J02 =FR 2400-944
iquid aerating stirrer e.g. for manure or sewage - 18516B/10
M 19.03.74 ASEA-ATOM AB C04 D15 E33 K07 (K05) =DS 2508-548
Separating dissolved fluorides from aq solns - 50993W/31
LR 24.09.73 ALLERGAN PHARM INC A96 D22 E16 (A11 A14 A89) =J7
10-615
Sterilising soft contact lenses - 24545W/15
ACY 29.05.75 AMERICAN CYANAMID CO D22 E14 =GB 1546-668
Anhydrous liquid germicidal iodophor compsn. - 31665X/17
ACY 18.03.76 AMERICAN CYANAMID CO B03 D16 *US 4154-925
Alkylated cis-BM 123 gamma-1 and gamma-2 derivs. - 42377B/22
ACY 22.11.78 AMERICAN CYANAMID CO A96 D22 (A23) *BE -872-208
Polyester copolymers contg. glycolide and tri:methylene carbonate gps. - 40612B/22
MER 30.05.75 AMERACE ESNA CORP A88 D15 J01 =GB 1546-664
Tubular filter with slotted axial discharge conduit - 43264Y/24
MOR- 05.10.77 AMERICAN ORIGINAL C D12 =DK 7804-394
Edible shellfish treatment with sodium sulphite and/or metabisulphite - 30031B/16
MOR- 05.10.77 AMER ORIGINAL CORP D12 =SW 7810-357
Edible shellfish treatment with sodium sulphite and/or metabisulphite - 30031B/16
MPO= 25.04.74 AM USSR POLIO INST B04 C03 D16 =CA 1054-053
Living vaccine active against canine distemper - 74452W/45
MST- 03.07.74 AMSTAR CORP B02 D16 =US 4154-655
Penicillin fermentation media giving high yields economically - 09110Y/05
NIS 08.08.75 ANIC SPA D23 E16 =SU -617-009
Dimethyl octenyl nitrile and dimethyl hydroxy octyl nitrile - 09409Y/06
NON 20.04.79 ANONYMOUS D15 *RD -181-011
Ultrasonic monitor for centrifugal separator for effluent - 41701B/22
NON 20.04.79 ANONYMOUS A14 D15 H01 (A91 A97) *RD -181-013
Ethylenically unsatd. carboxamide polymers - 41703B/22
NON 20.04.79 ANONYMOUS D15 *RD -181-047
Discontinuous active sludge treatment of effluent water(s) - 41726B/22
NON 20.04.79 ANONYMOUS A91 D15 (A14) *RD -181-058
Acrylamide polymer flocculant prodn. - 41734B/22
NON 20.04.79 ANONYMOUS D21 *RD -181-075
Tooth cleaning agent contg. mutanase and glucose oxidase - 41744B/22
ARMA- 27.05.75 INS ARMAND-FRAPPIER A92 B04 D16 *CA 1054-055
Partial anaerobic culture of Mycobacteria - 40707B/22
ARMO 14.06.77 ARMOUR CO D12 =US 4153-973
Sterilisation of rotating meat saw - 17707B/09
ASAH 01.05.75 ASAHI CHEMICAL IND KK A14 B04 D16 (A91) =US 4154-
917
Porous, polar copolymers having ion exchange capacity - 85369X/46
ASAI- 22.11.77 ASAI GERMANIUM RES D21 E12 *DT 2850-483
Cosmetic skin treatment formulation contg. an organo germanium cpd. - 40915B/22
ASMI= 14.12.76 AS USSR MICROBIOLOGY INS D13 (D16) *SU -617-473
Geotrichum candidum link fungal strain - 42063B/22
ASTR 16.12.66 ASTRA NUTRITION AB B05 D13 E17 =NL -160-164
Substd satd and mono- and poly-unsatd alkylglyceryl - 32573F/00
ASTR 08.03.76 ASTRA-EWOS AB B05 C03 D13 =GB 1546-747
Antibacterial compsns. esp. for use as feed additives - 64959Y/37
ATLA- 02.01.69 ATLAS PACIFIC ENG C D14 =NL -160-155
Ejector unit for use in apple orienting and transporting system - 04914X/03

*AUHI= 13.02.74 AS UKR HIGH MOL CPDS A88 D15 *SU -617-041
Purificn. of waste water contg. organic waste - 41823B/22
AUSC- 21.07.75 AUSCOTENG PTY LTD D15 #CA 1053-602
Water distillation esp. desalination with constant brine extraction - 11334Y/07
AVIC- 29.08.77 AVICON INC D12 (D18 D22) =J5 4049-301
Pyrogen-free collagen prodn. - 18542B/10
*AZOV= 03.01.76 AZOV BLACK SEA FISH D15 J01 *SU -617-379
Industrial effluent cleaner for salt soln. purificn. - 41971B/22

BADI 05.08.74 BASF AG A14 D16 =CA 1054-296
N-vinyl lactam (co)polymers - 17085X/10
BADI 30.06.76 BASF AG C03 D13 =OE 7704-578
Feedstuff based on brewer's yeast - 04345A/03
BADI 25.08.77 BASF AG A25 D15 H03 (A97) =J5 4050-099
Oil-absorbing hydrophobic polyurethane foams - 18388B/10
*BADI 18.11.77 BASF AG A25 D25 E14 *DT 2751-519
Surface active phenol derivs. useful as dispersants - 40754B/22
BADI 18.11.77 BASF AG A25 D25 E14 =EP ---2-033
Surface active phenol derivs. useful as dispersants - 40754B/22
*BADI 19.11.77 BASF AG C03 D13 *DT 2751-768
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22
*BADI 21.02.78 BASF WYANDOTTE CORP A97 D23 F09 *US 4154-725
Recovery of tall oil from tall oil soap - 42305B/22
BADI- 17.06.77 BAD ISCHLER SPEZIAL D13 =OE 7704-305
Lemon-flavoured salt condiment - 02206B/02
BAKP 22.08.77 BAKER PERKINS HOLDI D13 =FR 2401-224
System for hard aerated candy mfr. - 85805A/47
*BASH= 05.06.75 BASHKIR PETROL PROD D15 J01 *SU -617-377
Petroleum contg. effluents settler-filter - 41969B/22
BEEC 13.08.74 BEECHAM GROUP LTD A97 B04 D16 =CA 1053-595
Supported enzymes recoverable from aq. media - 14942X/09
BENC 12.06.75 BENCKISER-KNAPSACK B06 D21 E34 =OE 7602-412
Preparing Maddrell's salt useful in toothpastes - 66793X/36
BENC 05.10.77 BENCKISER J A GMBH D25 J04 =SW 7810-400
Free-flowing dust-free granulate, esp. for detergent mfr. - 31685B/17
BESI/ 03.10.77 BESIK F D15 #SW 7711-030
Appts. for treating waste water - 85716A/47
*BIOC- 24.01.78 BIOCELL SRL D23 (D13 D21) *BE -873-680
Fractional crystallisation of fats esp. butter and palm oi! - 40648B/22
BLAW 09.02.72 BLAW-KNOX FOOD & CH D14 =NL -160-333
Foodstuffs washing installation - 49539U/35
BLUE- 25.08.77 BLUE WING CORP C03 D13 =FR 2400-850
Microencapsulation of lipids in protein to prepare foods - 01951B/02
BLUE- 25.08.77 BLUE WING CORP C03 D13 =SF 7802-609
Microencapsulation of lipids in protein to prepare foods - 01951B/02
BOEF 09.08.74 BOEHRINGER MANNHEIM GMBH A96 B04 D16 =CA 1054-079
Shaped articles with an enzymatically active surface - 16265X/09
BOEH 30.07.76 BOEHRINGER INGELHEIM A92 D22 (A96) =US 4154-342
Sterilisable package for surgical instrument etc. - 08368A/05
*BOHN/ 19.11.77 BOHNKE B D15 *DT 2751-845
Biological sewage aeration basin - 40792B/22
BOHT 19.07.75 BOHME DR T KG D18 =OE 7605-315
Leather and animal skin processing into furs(SW140277) - 18780Y/11
BOHT 19.07.75 BOHME DR T KG D18 =OE 7800-510
Leather prodn. from pelts contg. water - 05993Y/04
*BRIE- 15.11.77 BRIEL D C & CO GMBH D13 *DT 2750-950
Cheese prodn. with min. protein loss - 40729B/22
BRIK- 07.10.77 BRIK PAK INC B04 D16 (D13) #NO 7703-432
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16
BRIK- 07.10.77 BRIK PAK INC B04 D16 (D13) #NO 7801-464
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16
BRIK- 10.10.77 BRIK PAK INC B04 D16 (D13) #DK 7704-483
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16
BRIM 13.11.74 BRISTOL MYERS CO B03 C02 D13 =CA 1053-666
6-Deoxytobramycin and 6-deoxykanamycin B - 38092X/21
*BRIM 10.03.75 BRISTOL MYERS CO A92 D13 E13 (A14 A82 E14) *CA 1053-497
Preserving film wrap for foods - 40694B/22
BROW/ 25.09.70 BROWN H D15 J01 K06 #J7 9010-541
Fluid/solid contact process - 11666S/06
BRTA 18.08.75 BRIT AMER TOBACCO LTD D18 =CA 1053-529
Processing cut tobacco stalks and leaves - 16743Y/10
BRTA 06.09.77 BAT CIGARETTEN-FAB D18 J01 =SF 7802-475
Eliminating nitric or carbon mon:oxide(s) from tobacco smoke - 04112B/03
BUCM 24.08.77 BUCHERGUYER MASCH D16 =FR 2401-361
Large horizontal container drive - 18245B/10
*BUTF- 18.11.77 GEBR BUTFERING MAS D17 *DT 2751-562
Sugar beet roller grizzly - 40758B/22
*BUTT= 14.12.76 BUTTER CHEESE IND D13 (D16) *SU -617-473
Geotrichum candidum link fungal strain - 42063B/22

CADB 17.08.73 CADBURY LTD D13 =CA 1053-962
prodn. with use of milk powder - 16409W/10

*CALG 17.02.77 CALGON CORP D23 (D13) *US 4154-750
Refining phospholipid contg. vegetable oils - 42310B/22
CARL 13.02.68 CINCINNATI MILLING B05 D25 E19 =NL -160-162
Anti irritant skin cleaning compsn. - 39219F/00
CESK 27.03.75 CESKOSLOVENSKA AKAD A96 B04 D16 =CA 1054-081
Biologically active amino cpds immobilisation, e.g. enzymes - 77932X/42
CEVY- 08.04.77 CESKE VYSOKE UCENI C03 D13 =OE 7802-388
Cereal product processing for animal foodstuffs - 76786A/43
CHAR/ 21.11.77 CHARM S E B04 D13 J04 =DT 2850-503
Detection of antibiotics in liquid samples e.g. milk, body fluid - 24010B/13
CHAR/ 21.11.77 CHARM S E B04 D13 J04 =GB 2008-248
Detection of antibiotics in liquid samples e.g. milk, body fluid - 24010B/13
CHET 28.11.75 CHEMETRON CORP D12 =OE 7608-778
Mechanical sepn. of meat and bone by screening - 23641Y/14
*CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) *BE -873-695
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHSY- 09.12.74 CHEMICAL SYSTEMS A88 D15 J01 (A11 A32) #DS 2458-208
Asymmetric reverse osmosis membrane prodn - 24979X/14
CHZA- 20.01.75 VU CHEM ZARIZENI D15 E31 K05 M25 #CA 1053-912
Uranium ore dressing effluents - 65647W/40
CIBA 23.12.75 CIBA GEIGY AG A87 D15 F06 (A91) =GB 1546-809
Polymeric quat. ammonium salts derived from bis halomethyl diphenyl - 45241Y/26
*CIBA 21.11.77 CIBA GEIGY AG A60 B05 C03 D22 *DT 2849-856
Halogenated 3-hydroxy-di:phenyl ether derivs. - 40883B/22
*CLIM- 07.01.76 CLIMAX CHEM CO C04 D13 E36 (C03) *US 4154-800
Phosphate(s) and phosphoric acid prodn. - 42325B/22
COLG 09.03.66 COLGATE PALMOLIVE CO A11 D24 =NL -160-348
Detergent compositions contg water insol solid cation - 08354R/06
COLG 11.01.73 COLGATE PALMOLIVE CO D21 E33 =CA 1054-060
Toothpaste compsn. - 39947V/22
COLG 07.07.75 COLGATE PALMOLIVE CO D22 F07 =CA 1053-884
Baby's disposable nappy - 86993X/47
*COLG 23.07.76 COLGATE PALMOLIVE CO A96 D21 *US 4154-706
Nonionic liq. shampoo - 42298B/22
COLG 06.10.77 COLGATE PALMOLIVE CO D25 E37 =DK 7804-453
Washing powders based on zeolite(s) and nonionic detergent - 14201B/08
COLG 06.10.77 COLGATE PALMOLIVE CO D25 E37 =SW 7810-337
Washing powders based on zeolite(s) and nonionic detergent - 14201B/08
COMS 18.03.68 COMMISS ENERGIE ATOMIQUE D15 J01 =J7 9010-542
Distillation by successive expansions for desalinating sea water - 60687Z/00
CORP 26.06.70 CPC INTERNATIONAL INC D17 E13 (D13) =DS 2130-994
Laevulose and aldonic acids - 01872T/02
CORP 12.08.74 CPC INTERNATIONAL INC C03 D13 =DS 2535-963
Stabilisn. of xanthophyll esters extracted from Tagetes - 19106X/11
CORP 01.09.77 CPC INTERNATIONAL INC D16 (D17) =J5 4049-392
Fixing gluco-amylase on cationic colloidal silica - 01975B/02
*CORP 09.11.77 CPC INTERNATIONAL INC D13 *GB 2007-961
Low-calorie peanut spread - 41080B/22
CORP 21.11.77 CPC INTERNATIONAL INC A11 D17 =DT 2850-282
Modified starch prepn. esp. using two centrifuge separations - 38989B/21
CRAN 18.12.74 CRANE CO D15 =CA 1053-810
Demineralising condensates with easy removal of iron - 60508X/32
CRIN- 13.09.77 CRINA CENT RECH INT C03 D13 =SF 7802-712
Ruminant feedstuff - B/17
*CSMA= 18.06.74 CONS MATLS IND RES D15 *SU -617-381
Removing soluble fluorine cpds. from waste water - 41973B/22

*DAII 27.09.77 DAIICHI KOGYO SEIYAKU D21 *J5 4049-336
Smooth, high water content cosmetic creme - 41293B/22
*DAIL 26.09.77 DAICEL KK B05 C03 D22 E17 *J5 4049-322
Non-medical fungicide and antibiotic - 41285B/22
*DAIS- 28.09.77 DAI-SAN KOGYO KK D25 E34 (D11) *J5 4050-010
Detergent compsn. for cleaning noodle boiling appts. - 41381B/22
*DAIS- 28.09.77 DAI-SAN KOGYO KK D25 E34 (D11) *J5 4050-011
Detergent compsn. for cleaning noodle boiling appts. - 41382B/22
*DAIS- 28.09.77 DAI-SAN KOGYO KK D25 E34 (D11 E13) *J5 4050-012
Detergent compsns. for cleaning noodle boiling appts. - 41383B/22
DCAF 05.10.77 DCA FOODS INDS INC D14 =DK 7804-409
Continuous treatment oven for food - 31850B/17
DCAF 05.10.77 DCA FOODS INDS INC D14 =SW 7810-076
Continuous treatment oven for food - 31850B/17
DDSK- 24.01.77 DDS-KROYER A/S D17 =US 4154-623
Starch hydrolysates prepd. from wheat, barley or rye - 38592A/22
DEGS 04.07.75 DEUTSCHE GOLD & SILBER D13 E16 =DS 2529-854
Optically pure N-acetyl L-methionine prepn. in high yields - 05599Y/04
DEJI- 14.11.77 DEJ INT RES CO A97 D13 =NL 7712-503
Caffeine removal from carbon di:oxide extracts - 37162B/20
DEJI- 08.11.78 DEJ INT RES CO BV A97 D13 =NL 7811-102
Caffeine removal from carbon di:oxide extracts - 37162B/20
DENE- 27.08.77 DEUTSCHE NEMECTRON D21 =FR 2400-883
Skin pores cleaning system - 18284B/10
*DENN/ 10.07.75 DENNEN N L D15 *US 4154-657
Solar still including concentric domes - 42275B/22
DENT- 22.04.77 ETS DENTAIRE IVOCLA D21 M13 =OE 7802-812
Metal spray gun, used in denture mfr. - 78614A/44
*DNII 27.09.77 DAINIPPON INK INST CHEM B04 C03 D16 E11 (D13
4049-395
Ribonucleic acid prodn. - 41308B/22
*DNIN 27.09.77 DAINIPPON INK CHEM KK B04 C03 D16 E11 (D13
4049-395
Ribonucleic acid prodn. - 41308B/22
DORO 09.09.66 DORR OLIVER INC D15 =NL -160-229
Membrane separator in a biological reactor - 38597S/23
DOUW 24.08.77 DOUWE EGBERTS KON D13 =FR 2400-851
Juices and extracts concn. - 18329B/10
DOWC 27.09.76 DOW CHEMICAL CO A96 D22 F07 G02 (A14)
4154-898
Water absorbent, cross linked acrylic fibres and films - 79344X/43
DSOH- 22.05.75 DSO HRANMASCH D16 (D13) =SU -616-276
Mycelium culture growth of polyporus species - 94585X/51
*DUCH/ 27.06.78 DUCHSTEIN S C03 D13 *OE 7804-659
Pig food - B/22
DUPO 16.12.75 DU PONT OF CANADA D13 (D23) =US 4154-728
Separating comminuted plant material contg. protein into fra
45552Y/26
*DZNI= 13.02.74 DZERZ NITROGEN ORG A88 D15 *SU -617-041
Purificn. of waste water contg. organic waste - 41823B/22

*EBAI 10.06.77 EBARA INFILCO KK D15 *J5 4003-359
Phosphate removal from soln. - 41122B/22
*EBAI 28.09.77 EBARA INFILCO KK D15 *J5 4050-146
Prodn. of ammonium-nitrogen converting bacteria in water trea
41441B/22
EFFM- 15.08.77 EFFEM FOODS PTY LTD C03 D13 =J5 4049-881
Animal food, esp. for cats and dogs, based on animal blood - 141
EGYE 21.11.74 EGYT GYOGYSZERVEGYESZETI B02 C02 D13 =OE
108
Bactericidal quinoxaline 1,4,-dioxides - 30206X/17
*EIKE- 26.09.77 EIKEN KAGAKU KK B04 D16 J04 *J5 4049-320
Fractional quantitative determn. - 41283B/22
ELIL 00.00.72 ELI LILLY & CO B04 D16 #J7 9010-638
Tenebrimycins antibiotics from strep tenebrarius - 29579F/00
ELKA- 24.05.77 ELKAUNI AG C03 D13 =J5 4049-897
Growth promoting and anti:infective feed for fish - 88046A/49
ENFO/ 04.10.77 ENFORS S O D16 F09 =DK 7804-371
Microbiological modification of hardwood - 31979B/17
ENFO/ 04.10.77 ENFORS S O D16 F09 =SW 7711-089
Microbiological modification of hardwood - 31979B/17
*EPSC- 13.02.78 EPS CHEWING GUM B06 D13 *US 4154-814
Therapeutic chewing gum compsn. - 42331B/22
ERAP 26.11.74 ELF AQUITAINE D15 H01 =CA 1054-268
Purifying oil drilling effluent - 42019X/23
ESCO- 20.07.68 ESCORA FINANZ ANST D13 =DS 1792-084
Stable beverages prepd from clotted milk - 44878R/25
*ESMI- 13.09.78 ESMIL BV D15 J01 *J5 4050-484
Appts. for distilling water from aq. soln. contg. dissolved c
41510B/22
ETHI 24.06.77 ETHICON INC A23 D22 F01 (A96) =FR 2401-185
Crystalline lactide-glycolide copolymer - 04377B/03
ETHI 16.11.77 ETHICON INC A96 D22 F01 =GB 2008-135
Absorbable surgical suture filament and prosthesis material - 39387
EVER/ 22.08.78 EVERS H C A D22 E19 (E37) #FR 2400-906
Disinfecting and cleaning contact lenses without allergic reac
18333B/10
EXQU- 02.07.75 EXQUISIT-KOSMETIK A97 D25 =GB 1546-829
Washing and rinsing composition for softening textiles - 05580Y/04
*EXQU- 12.02.76 EXQUISIT-KOSMETIK D25 *OE 7600-988
Liq. light duty detergent - B/22

FARB 07.09.74 BAYER AG B04 D16 =CA 1053-661
Protease-free kallikrein solutions - 22829X/13
FARB 08.03.75 BAYER AG A60 B04 C03 D13 (D22) =CA 1054-082
Antibiotic from Actinoplanes SE-73 or 73B - 72411X/39
FARB 08.03.75 BAYER AG A60 B04 C03 D16 =CA 1054-083
Antibiotic, produced from Actinoplanes SE-73 or 73B - 72412X/39
FARB 04.02.76 BAYER AG D21 =OE 7700-730
Sun-tanning prepns. having high protection factor - 57771Y/33
FARB 19.08.77 BAYER AG A93 D22 E13 G04 (A26) =SF 7802-515
Silicone sealant compsns. contg. benzimidazolyl carbamate cp
18204B/10
FARB 27.08.77 BAYER AG B03 C02 D13 =SF 7802-607
Tri:hydroxy-piperidine derivs. - 18396B/10
FARB 03.09.77 BAYER AG D18 =SF 7802-689
Chrome tanning of hides and pelts - 20218B/11
FARB 13.09.77 BAYER AG C03 D16 E13 (D13 D17) =SF 7802-768
Continuous sucrose conversion to iso:maltulose - 22393B/12

5.05.72 HOECHST AG D25 E17 =DS 2225-367
rcolic acid prodn - 76603U/50
7.10.74 HOECHST AG A97 D12 (A11) =OE 7707-425
ulose hydrate sausage casings - 30141X/17
28.08.76 HOECHST AG D15 E31 =DS 2638-957
ur suppressant for human or animal excrement - 17975A/10
28.05.77 HOECHST AG A94 D12 (A17 A23 A97) =FR 2401-073
ular packaging material of laminated polyamide film - 88023A/49
20.08.77 HOECHST AG D13 E17 (D21 E16) =SF 7802-516
ultaneous prepn. of fatty acid nitrile(s) and glycerol - 18378B/10
17.11.77 HOECHST AG D25 E33 (E34) *DT 2751-354
stalline zeolite and sodium tri:phosphate mixt. prepn. - 40739B/22
17.11.77 HOECHST AG D25 E33 (E34) =EP ---2-018
stalline zeolite and sodium tri:phosphate mixt. prepn. - 40739B/22
09.09.77 FAR-MARCO INC D13 (D11) =SF 7800-478
ole wheat grain fractionation - 22280B/12
03.10.77 FATER SPA D22 F04 =SW 7810-363
orbent sanitary tampon of hydrophilic cellulose fibres - 10024B/06
05.10.77 FERTILIZERS & CHEM C03 D13 =DK 7804-399
n-protein nitrogenous animal feeds - 29962B/16
26.08.77 FIRMENICH SA D23 E15 =FR 2401-129
ro cpd. prodn. for use in perfumery industry - 18353B/10
07.09.77 FIRMENICH SA B07 D23 E13 (B03 D13) =J5 4049-344
thyl-substd. 6-methylene-1-oxa-spiro-decene or deca-di:ene -
319B/12
16.11.77 FIRMENICH SA D23 E17 =NL 7811-290
-Di:methyl-deca-4,9-di:en-1-al - 39369B/21
22.11.77 FISCHER K O P D17 H03 J01 (H06) *EP ---2-070
sorbents for oil comprising cellulosic fibres - 40962B/22
= 01.03.76 FISHING FLEET DES D12 *SU -604-550
nall smoked fish e.g. sprats filleting and packing prodn. line -
790B/22
23.08.77 FIVES-CAIL BABCOCK D17 *FR 2400-939
mpact gravity settlement clarifier partic. for sugar juice - 41021B/22
C 23.05.74 FMC CORP D15 E13 =CA 1054-267
ological decompsn. of cyanuric acid-contg. effluent - 81877W/50
C 23.05.77 FMC CORP D14 *US 4154-163
urved cup fruit juice extractor - 42172B/22
- 21.11.75 FMIB SELVA PAPIN D11 =CA 1053-979
ven with improved heating and ventilation arrangement - 63772X/34
- 07.10.77 FOSS ELECTRIC N A/S D13 E13 J04 =DK 7704-452
etermining nitrogen in a sample - 31967B/17
N- 11.07.77 ZUCKERFAB FRANKEN C03 D13 (D17) =FR 2401-223
fg. animal feed from sugar beet waste and molasses - 82181A/46
J 04.04.75 FREUDENBERG, CARL FA A11 D21 =OE 7602-413
ctuating substance for cosmetics - 04727Y/03
J 19.04.75 FREUDENBERG, CARL FA A96 D21 =OE 7602-839
over foil for cosmetic masks and packs - 83431X/45

T 22.11.77 GENERAL ATOMIC CO A96 D22 F07 *EP ---2-090
ulti-fibre carbon coated suture - 40969B/22
E 03.10.77 GENERAL ELECTRIC CO A91 D15 J01 K06 =SW 7810-265
egenerating spent anionic and cationic exchange resin mixt. -
8180B/15
E- 08.11.77 GENENTECH INC B04 D16 =GB 2008-123
ecombining plasmid for transformation of bacteria - 35257B/19
O 15.02.74 GENERAL FOODS CORP D13 =CA 1053-965
ortified gelatin dessert powders - 57121W/34
O 30.01.75 GENERAL FOODS CORP A92 D13 =CA 1053-964
ealed container for roasted ground coffee - 50332Y/28
O 07.04.75 GENERAL FOODS CORP D13 E24 =CA 1054-155
ellow food-colouring agents - 64912X/34
O 11.06.75 GENERAL FOODS CORP D14 J02 #CA 1054-142
ood whip with eccentrically moving wire tines - 47453W/28
NO 25.08.77 GENERAL FOODS LTD D13 =FR 2400-849
epn. and recovery of aroma constituents - 18350B/10
NO 29.08.77 GENERAL FOODS CORP D13 E24 =SF 7802-639
Solubilising erythrosine food dye under acid conditions - 01971B/02
NO 29.08.77 GENERAL FOODS CORP A97 D13 E23 =SF 7802-640
Stabilising erythrosine in acid food prods., esp. drinks - 04084B/03
NO 07.11.77 GENERAL FOODS CORP D17 *GB 2008-137
Continuous starch gelatinisation process - 41100B/22
NO 22.11.77 GENERAL FOODS CORP D13 #DT 2752-085
Continuous double coating of cereal particles - 89916Y/50
VA 30.05.73 GIVAUDAN CORP D23 E19 *US 4154-762
Aldehyde or ketone prodn. from alcohol(s) - 42314B/22
AC- 21.11.77 GLACE-BOLAGET AB D13 *DT 2849-623
Ice cream cone closure appliance - 40870B/22
LD 11.03.75 GOLDSCHMIDT TH AG C02 D22 E13 =OE 7803-864
Microbiocidal quat imidazolium derivs - 56104X/30
AC 02.08.77 GRACE W R CO B02 D16 =J5 4049-394
Tetra:cyclic antitumour agent quadrone - 87867A/49
AC 22.09.77 GRACE W R CO C03 D13 (D16) #J5 4049-884
Enzyme fraction by fermentation of Streptomytes griseus - 17519A/09
AC 01.02.78 GRACE W R CO B02 C02 D16 *BE -873-855
Fermentative prodn. of monordene - 40690B/22

GRAM- 06.10.77 BRODRENE GRAM A/S D13 =DK 7704-438
Deeply inlaid decoration of iced lollies with contrast material - 11966B/07
GRAM- 06.10.77 BRODRENE GRAM A/S D13 =DK 7704-439
Decoration of iced lollies with patterned imprint - 11967B/07
GRAM- 06.10.77 BRODRENE GRAM AS D13 =SW 7810-216
Deeply inlaid decoration of iced lollies with contrast material - 11966B/07
GRAM- 06.10.77 BRODRENE GRAM AS D13 =SW 7810-217
Decoration of iced lollies with patterned imprint - 11967B/07
* GROD= 01.02.77 GRODNO PROMAVTOMATI D13 J01 (D16) *SU -617-036
Determn. of scum formation in evaporators - 41819B/22

HAAR 07.12.73 HAARMANN & REIMER GMBH D13 E14 J01 =OE 7409-723
Purificn. of thermolabile cpds. like vanillin by distn. - 42650W/26
HAAR 19.04.74 HAARMANN & REIMER GMBH B05 D23 E14 (D13) =US 4154-769
2-Alkoxy-4-(1-propenyl)-phenols prepn - 65705W/40
* HAYA/ 29.09.77 HAYASHIDA S C04 D13 (C03) *J5 4049-870
Prepn. of fertiliser and feedstuff of high protein content - 41325B/22
HAYB 17.07.74 HAYASHIBARA SEIBUTS D17 (D16) =CA 1054-080
Maltose prodn from saccharified starch hydrolysates - 10520X/06
HENK 08.10.68 HENKEL KG AUF AKTIEN A25 D25 E17 =NL -160-248
Thio ether alcohols as non ionic surface active agents - 23232R/14
HENK 14.08.74 HENKEL KG AUF AKTIEN D25 E17 (E16) =CA 1053-858
Bleaching agent auxiliary - 14927X/09
HENK 04.10.74 HENKEL KG AUF AKTIEN A97 D25 E36 (E11) =FR 2401-261
Washing agent for textiles contg. aluminosilicates - 28685X/16
HENK 04.10.74 HENKEL KG AUF AKTIEN A97 D25 E36 (E11) =FR 2401-262
Washing agent for textiles contg. aluminosilicates - 28685X/16
HENK 23.04.76 HENKEL KG AUF AKTIEN D21 E14 =FR 2400-898
Alkoxy-benzoate esters used as antiinflammatories for cosmetics - 75901Y/43
HENK 29.11.76 HENKEL KG AUF AKTIEN A97 D25 E19 =OE 7608-818
Textile detergent for cold washing - 40696A/23
HENK 20.12.76 HENKEL KG AUF AKTIEN D21 E13 =OE 7709-023
Treating hair with specified oxazolidine cpds. - 44096A/25
HENK 20.12.76 HENKEL KG AUF AKTIEN D21 E17 =OE 7709-024
Treating hair with alkoxymethyl aliphatic ester(s) - 44098A/25
HENK 08.10.77 HENKEL KG AUF AKTIEN A97 D14 =DK 7804-125
Cleaning product for fruit, vegetables and other foods - 27862B/15
* HENK 21.11.77 HENKEL KG AUF AKTIEN C03 D13 *DT 2751-902
Growth-promoting animal feed - 40798B/22
HETO 03.04.75 HETEROORG CPDS AS USSR D12 #CA 1053-496
Artificial edible caviar contg. hydrated gelatine grains - 74159W/45
HETO 03.04.75 HETEROORG CPDS AS USSR D12 #CA 1053-963
Arificial edible caviar contg. hydrated gelating grains - 74160W/45
HIEJ 30.06.76 HITACHI PLANT ENG AND D15 E36 J01 =US 4154-673
Processing waste water contg. sulphur cpds. - 04745A/03
HITA 30.06.76 HITACHI KK D15 E36 J01 =US 4154-673
Processing waste water contg. sulphur cpds. - 04745A/03
* HITA 28.09.77 HITACHI KK D15 E36 *J5 4049-982
Regenerating ion exchange resin in boiling water reactor - 41366B/22
* HITA 30.09.77 HITACHI KK D15 J08 *J5 4050-475
Device for conditioning heat exchanger cooling water - 41502B/22
* HITA 30.09.77 HITACHI KK D15 *J5 4051-248
Purificn. of domestic waste water suitable for heat exchanger - 41645B/22
* HITF 26.09.77 HITACHI SHIPBLD ENGG KK D15 *J5 4048-962
Solidification of mud-water sludge to hard gel contg. heavy metals - 41257B/22
HITG 30.06.76 BABCOCK HITACHI KK D15 E36 J01 =US 4154-673
Processing waste water contg. sulphur cpds. - 04745A/03
HOFF 17.12.69 HOFFMANN-LA ROCHE AG B01 D16 =DS 2061-183
Antiinflammatory pregnene-diones - 43997S/26
HOFF 21.08.74 HOFFMANN-LA ROCHE AG B05 C03 D16 =DS 2537-060
Optically active 4-hydroxy-2,2,6-trimethyl cyclohexanone - 19148X/11
HOFF 02.09.77 HOFFMANN-LA ROCHE AG B01 D16 =J5 4049-393
7 Alpha-hydroxy-steroid cpds. prepn. - 22394B/12
HOFF 14.09.77 HOFFMANN-LA ROCHE AG D21 E16 (E13) =J5 4049-335
Cosmetic compsn. having anti-seborrhoea activity - 22379B/12
* HOHN 28.09.77 HOHNEN OIL KK D13 E11 (D12 E17) *J5 4050-008
Prepn. of oil for roasting meat on hot plate - 41380B/22
* HOLK 19.11.77 HOLSTEIN & KAPPERT MASC D16 *DT 2751-733
Double seat valve for use in beverage industry - 40766B/22
* HOLT 16.09.77 HOLLYMATIC CORP D12 *US 4153-974
Hamburger patty prodn. in reciprocating mould - 42142B/22
HOST 04.09.73 HOLLISTER INC A96 D22 =CA 1054-058
Protective gel for colostomy appliances - 19615W/12
HUHT/ 05.11.68 HUHTA-KOIVISTO E E D15 J05 =J7 9010-543
Sea-water distillation - 33005R/19
HUNT- 26.07.77 HUNTER VALLEY COOP D13 =J5 4049-351
Prodn. of instant powders, esp. of whole milk - 13588B/07
* HUNT- 19.12.77 HUNT MOORE N ASSOC D23 *US 4154-408
Flaking mill with adjustable roller spacing - 42223B/22

*ICEB- 22.11.77 ICEBERG TRANSPORT D15 H01 *DT 2845-191
Self-stabilising floating tower - 40841B/22
*ICEB- 22.11.77 ICEBERG TRANSPORT D15 H01 *DT 2845-192
Self-stabilising floating tower - 40842B/22
ICEB- 22.11.77 ICEBERG TRANSP INT D15 H01 =GB 2008-051
Self-stabilising floating tower - 40842B/22
ICIL 31.03.70 IMPERIAL CHEM INDS LTD B02 D22 E13 =J7 9010-612
1,2-benzisothiazolone solns as disinfectants - 64467S/40
ICIL 30.07.74 IMPERIAL CHEM INDS LTD D16 E13 (D17) =CA 1054-084
Glucose isomerase continuous prodn. - 13369X/08
ICIL 30.07.74 IMPERIAL CHEM INDS LTD D16 E13 (D17) =OE 7505-859
Glucose isomerase continuous prodn. - 13369X/08
ICIL 20.08.74 ICI UNITED STATES D17 E17 =CA 1054-160
Polyhydric alcohol prepn from carbohydrates - 19125X/11
IFOA 11.12.75 IFO AB D15 =CA 1053-812
Small sewage treatment plant - 43884Y/25
IMAM/ 24.12.76 IMAMURA T D22 =J7 9010-554
Deodorising adsorbent used e.g. in a piggery - 59442A/33
INFL 18.08.69 INT FLAVORS & FRAGR INC D23 E14 =NL -160-238
Indane derivs as odorants - 08121S/04
INFL 07.10.75 INT FLAVORS & FRAGR INC B05 D13 E15 =CA 1053-688
Fragrance modifying compsns. - 03751Y/02
INFL 24.08.77 INT FLAVORS & FRAGR INC D13 E13 =US 4154-766
Augmenting or enhancing aroma or taste of foodstuff - 01929A/01
*INFL 15.11.77 INT FLAVORS & FRAGR INC B07 D23 E15 (B05 D13 D18 D21) *GB 2008-115
Pure trans, trans-delta-damascone - 41095B/22
INFL 15.11.77 INT FLAVORS & FRAGR INC B07 D23 E15 (B05 D13 D18 D25) =NL 7809-271
Trans, trans-delta-damascone - 39304B/21
INFL 13.12.77 INT FLAVORS & FRAGR INC B05 D13 E15 (D18 D21 D23) =US 4154-696
Flavour-enhancing 4-butyl-3,4,5-tri:methyl-2,5 cyclo-hexa: dienone(s) - 21477A/11
INFL 13.12.77 INT FLAVORS & FRAGR INC B05 D13 E15 (D18 D21 D23) =US 4154-763
Flavour-enhancing 4-butyl-3,4,5-tri:methyl-2,5 cyclo-hexa: dienone(s) - 21477A/11
INFL 21.06.78 INT FLAVORS & FRAGR INC D23 E15 (D13) =US 4154-693
Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo hexadiene - 67315A/38
INRG 12.05.75 INST NAT RECH AGRON C03 D16 (D13) =GB 1546-952
Edible protein recovery from plant press cakes - 90900X/49
INSF 01.02.74 INST FRANCAIS DU PETROLE D17 =CA 1053-695
Selective hydrogenation of polyunsatd. oils using catalyst - 50917W/31
INTE- 13.05.75 INTEROX CHEM LTD A60 D25 E14 F06 =US 4154-695
Bleaching agents for domestic, fabric-washing detergent compsns. - 88804X/48
IRWI/ 14.11.77 STONE I D22 #NL 7712-486
Sterilisation of biological materials - 84482Y/47
*ITST- 18.11.77 INT STOCK FOOD CORP D13 *DT 2849-902
Silage conservation and fermentation control - 40884B/22

JANC 19.08.68 JANSSEN PHARMACEUT NV B03 C02 D22 =SU -617-011
Fungicidal and insecticidal 1-(beta-aryl)ethylimidazole - 13618R/09
JAPF 22.09.71 NIPPON KAGAKU SENIK A97 D15 =J7 9010-550
Carbamoyl polyethylene imine coagulation agent - 40558V/22
JETA- 11.03.74 JET AERATION CO D15 J01 =US RE29-996
Upflow filter for domestic sewage treatment - 31660X/17
JOHJ 02.01.75 JOHNSON & JOHNSON A60 D21 E14 (A14 A96) =FR 2401-180
Polymerisable dental repair materials - 54549X/29
JOHJ 31.08.77 JOHNSON & JOHNSON A81 D22 G03 (A11 A17) =J5 4050-045
Pressure sensitive adhesive compsn. - 29695B/15
*JOHJ 23.01.78 DEVRO INC D12 *US 4153-975
Cutting thin walled tube into segments - 42143B/22
*JOHN- 27.09.77 JOHNSON KK A97 D22 (A14) *J5 4049-343
Air freshener gel compsn. stable at low temp. - 41298B/22

KAND 01.06.72 KANTO DENKA KOGYO A97 D13 (A14) =J4 9011-679
Preservation of egg - 41678B/22
*KAND 01.06.72 KANTO DENKA KOGYO A97 D13 (A14) *J7 9010-621
Preservation of egg - 41678B/22
*KANE 24.09.77 KANEBO KK D21 E17 *J5 4049-337
Water-in-oil type stick cosmetics - 41294B/22
*KANE 29.09.77 KANEBO KK D21 E19 (E36) *J5 4050-513
Liq. shampoo compsn. - 41525B/22
*KANF 20.06.77 KANEGAFUCHI CHEM KK D15 *J5 4006-863
Desalination of sea-water - 41135B/22
KANF 25.08.77 KANEGAFUCHI CHEM KK A97 B04 D16 =FR 2401-171
Purification of macromomycin antitumour antibiotic - 18537B/10
KANF 25.08.77 KANEGAFUCHI CHEM KK B04 D16 =FR 2401-172
Antibacterial and antitumour protein antibiotic auromomycin - 20269B/11
KAOS 02.07.74 KAO SOAP KK D22 E36 (E19) =US 4154-817
Deodorizing compsn. - 17638X/10

*KATA- 26.09.77 KATAYAMA KAGAKU KOG C03 D22 E19 F09 *J5
303
Insecticidal plaste for use with wood to be used in sea water - 412
KEND 03.07.75 KENDALL CO D22 F07 =OE 7604-864
Surgical stocking with thigh portion of low longitudinal s
86965X/47
KERJ 02.02.74 KERNFORSCHUNGS JULICH D16 =US 4154-668
Increasing permeability of cell walls - 60575W/37
*KIKK 28.09.77 KIKKOMAN SHOYU KK D13 *J5 4049-369
Prodn. of seasoning or drink - 41305B/22
KIMB 22.08.77 KIMBERLY CLARK CORP A96 D22 (A35) =BR 7805-
Sanitary towel without fastening loops - 20276B/11
KIMB 22.08.77 KIMBERLY CLARK CORP A96 D22 (A35) =FR 2400-
Sanitary towel without fastening loops - 20276B/11
*KLEI/ 18.06.76 KLEINBERG I B04 D21 (B05) *US 4154-813
Improving natural defences to caries with peptide(s) - 42330B/22
KNOL 10.04.76 KNOLL AG B04 D16 =US 4154-656
Compsns. contg. fibrinogenase and soluble polysaccharide - 6882
KNSE 11.02.77 KUNSTSTOFFTECH GMBH D22 =DS 2705-732
Activated sludge for air purification - 61983A/35
KOAT- 03.03.76 KOATSU GAS IND KK D22 E37 (E18) =J7 9010-552
Deodorant compsn. for household and industrial use - 74884Y/42
KOLE/ 31.05.77 KOLEHMAINEN S A97 B04 D16 J04 =FR 2401-423
Assay of cell metabolites - 90030A/50
*KOPP- 10.02.78 KOPPENS MACHINEFAB D12 *BE -873-524
Device for pressing e.g. ground meat into disc shaped prod. - 4064
KRAM- 13.08.76 KRAMER & GREBE GMBH D12 =OE 7704-965
Vacuum cutter for meat - 14305A/08
KRPP 19.11.77 KRUPP F GMBH D14 (D23) =DT 2751-703
Multistage screw press to expel liq. from oil seed etc. - 22106B/12
KRUG- 21.04.75 KRUGER I A/S D15 =GB 1546-900
Double drum centrifuge - 84370X/45
*KUDO/ 30.09.77 KUDO K D25 G04 *J5 4050-511
Oil stain removal agent - 41523B/22
KURE 19.01.74 KUREHA CHEM IND KK A97 D12 (A14) =CA 1053-4
Curved plastic sausage casings - 39246W/24
KURE 17.05.77 KUREHA KAGAKU KOGYO D12 =FR 2400-846
High-speed meat tenderising machine - 86478A/48
KYOW 03.09.73 KYOWA FERMENTATION KK A97 D16 =J7 9010-63
Fermentative production of guanine nucleotide - 64691W/39
KYOY 24.08.77 KYORITSU YUKI KK A91 D15 (A21) =FR 2401-188
Cationic flocculant esp. for treating effluents - 20258B/11

LABO- 20.03.76 LABOR MUSZERIPARI M D22 =GB 1546-746
Automatically venting steam steriliser - 69198Y/39
LABS- 15.01.76 SOC LAB D15 =CA 1053-567
Falling film evapn. and spray drying in single chamber - 34544Y/20
LANG- 26.08.77 LANG APP GMBH D15 =BR 7805-524
Proportional dosing of liq. additive, esp. disinfectant, into w
16003B/09
LANG- 26.08.77 LANG APPARATEBAU D15 =FR 2400-946
Proportional dosing of liq. additive, esp. disinfectant, into w
16003B/09
LARS/ 19.08.77 LARSSON K D13 E11 (E13) =SF 7802-477
Sepg. polar lipid(s) from non-polar lipid(s) for use as food addit
18322B/10
*LEAD- 27.09.77 LEAD CHEM KK A96 D21 (A14) *J5 4049-334
Face pack compsn. - 41292B/22
LEIF- 07.10.76 LEIFHEIT INT D14 =OE 7706-723
Domestic mincer with handle axis above mincing rotor axis - 10346A
*LEME= 07.06.76 LENGD MEAT IND PROD D12 *SU -599-967
Food prod. e.g. meat slicer - 41783B/22
LEPE 27.07.74 GRUPPO LEPETIT SPA B04 D16 =NL -160-332
Gardimycin antibiotics - 85017W/52
*LIFE- 12.12.77 LIFE SAVERS INC D13 *US 4154-867
Sugarless candy with improved flavour and sweetness - 42347B/22
*LIKH/ 16.05.74 LIKHACHEV E I D15 H05 J01 *SU -617-376
Industrial waste water purification unit - 41968B/22
LINM 03.11.77 LINDE AG D15 =EP ---2-008
Two/stage biological sewage treatment - 37266B/20
*LIOC 27.09.77 LION DENTIFRICE KK D21 E12 *J5 4049-341
Dentifrice compsn. - 41297B/22
*LIOC 28.09.77 LION DENTIFRICE KK D21 G04 *J5 4049-985
Hydrous aerosol agent - 41368B/22
LIOC 20.10.77 LION DENTIFRICE KK B06 D21 E32 =GB 2007-974
Caries-preventing dental treatment compsn. - 35643B/19
*LIOC 22.11.77 LION DENTIFRICE KK A60 B07 D13 E14 (D21) *DT 284
221
Di:hydroxy-di:hydroxy-phenyl-octyl-phenone antioxidant - 40837B/2
*LIOY 15.08.77 LION FAT & OIL KK A60 D21 E19 H07 *J5 4032-415
Hindered ester(s) prepn. - 41161B/22
*LIOY 30.09.77 LION FAT & OIL KK A97 D25 E17 (E16 E33 E34) *J5 405
512
Prepn. of additive for detergent powder - 41524B/22
LYCK 18.10.77 LYCKEBY STARKEISEFORADIN D13 =GB 2007-960
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09

E= 09.12.75 MAGN METAL WKS D15 H07 M21 *SU -617-378
parating oil from metal-rolling effluents - 41970B/22
O- 25.10.77 MANOR ENG CO LTD D15 J01 *EP ---2-101
er press with filter plate stack - 40973B/22
C/ 04.05.77 MARCOTTE O D15 *US 4154-685
avity flow septic tank system - 42289B/22
G- 14.11.69 MARGARINBOLAGET AB D13 (D23) =NL -160-153
urable margarine - 35667S/21
J 28.09.77 MATSUSHITA ELEC IND KK A89 B04 D16 J04 *J5 4050-396
ng life enzymatic electrode - 41457B/22
J 28.09.77 MATSUSHITA ELEC IND KK A89 D15 J04 *J5 4050-397
esulphurising agent for the analysis of water - 41458B/22
G/ 22.11.77 MAUGG J D13 *DT 2751-994
e cream portioning tool - 40805B/22
N 11.01.74 MARUZEN OIL KK A91 D15 J01 =NL -160-293
raft copolymer for ion exchanger membranes - 49718W/30
N 24.09.77 MARUZEN OIL KK A18 B07 D21 E17 (A96) *J5 4048-889
oprene-propylene copolymer hydride - 41244B/22
D 22.05.72 MCDONNELL DOUGLAS CORP D16 =J7 9010-632
icroorganisms identification - 76631U/50
C 22.08.77 MEAD CORP A92 D13 =FR 2401-065
septic packaging of acid foodstuffs - 15978B/09
A- 08.10.76 MECAFINA SA D15 =OE 7707-047
Mechanical biological sewage treatment drum - 38731A/22
GG 09.04.76 MEGGLE MILCHIND GMB A96 B05 C03 D13 =OE 7702-

ry, antimycotic hexamethylene-tetramine thiocyanate compsns. -
4334Y/42
J 08.11.77 MEIJI SEIKA KK C03 D16 =GB 2007-976
Herbicidal compsn. contg. antibiotic SF-1293 - 37454B/20
RI 25.11.74 MERCK & CO INC B02 C02 D13 (D16 D22) =DS 2552-638
Broad spectrum antibiotic thienamycin - 31696X/17
RI 23.04.75 MERCK & CO INC A96 B04 D15 F09 (A97) =OE 7602-909
Poly methyl 3-trimethyl ammonio propyl imino trimethylenes -
33010X/45
RI 05.05.75 MERCK & CO INC B04 D16 #CA 1054-054
Cell-free chickenpox virus prodn - 78722W/48
RI 02.06.77 MERCK & CO INC A91 B04 D16 *J5 4035-291
Sepg. pure cephamycin C antibiotic from fermentation soln. - 41172B/22
RI 04.10.77 MERCK SHARP & DOHME C03 D22 E13 F09 #DK 7704-396
Antimicrobial, antifungal 1,2,5-thiadiazolone-3.cpds. - 32025A/18
RI 06.10.77 MERCK SHARP & DOHME C03 D22 E13 F09 #SW 7711-212
Antimicrobial, antifungal 1,2,5-thiadiazolone-3.cpds. - 32025A/18
RI 12.10.77 MERCK & CO INC B02 C02 D18 E13 (D13 D21) =US 4154-
5
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) -
37528B/20
CR- 10.12.75 MICROLIFE TECHNICS D16 (D12) =OE 7600-998
Micrococcus sp NRRL-B-8048 bacterial concentrate - 23563Y/13
KH/ 04.11.65 MIKHAILOV I P D16 (D13) *SU -212-948
Fruit juice de-sulphitation - 41752B/22
LE 03.09.74 MILES LABORATORIES INC D16 E13 (D17) =CA 1054-087
Pretreatment of bacterial cells - 07460X/05
ITK 14.08.75 MITSUI TOATSU CHEM INC D15 =GB 1546-681
Liq. phase oxidn. of effluents - 15001Y/09
ITN 18.09.73 MITSUBISHI GAS CHEM IND A97 C03 D16 (A14) =J5
053-580
Sepn. and recovery of cell bodies - 41679B/22
ITN 18.09.73 MITSUBISHI GAS CHEM IND A97 C03 D16 (A14) *J7 9010-
33
Sepn. and recovery of cell bodies - 41679B/22
ITO 26.09.77 MITSUBISHI HEAVY IND KK D15 F09 *J5 4048-961
Microbiological treatment of waste liquor - 41256B/22
ITP 28.09.77 MITSUBISHI PETROCH KK D15 M14 *J5 4050-144
Treatment of heavy metal-contg. effluent - 41440B/22
ITU 24.08.77 MITSUBISHI CHEM IND KK A91 D15 (A21) =FR 2401-188
Cationic flocculant esp. for treating effluents - 20258B/11
ITU 22.09.77 MITSUBISHI CHEM IND KK A97 D25 E19 F06 (A25) *J5
050-675
Textile scouring and cleaning agent - 41603B/22
OFA= 28.07.74 MOSC FATS INST D23 J04 *SU -617-066
Spent nickel-ceramic catalyst regeneration - 41848B/22
OLN 12.04.67 MOLNLYCKE AB D22 =DS 1760-171
Disposable diaper machine - 51115R/29
ONS 01.12.75 MONSANTO CO A88 D15 J01 =GB 1546-870
Sepg. neutral organic cpds. from aq. solns. - 39811Y/23
OOC 13.11.75 MO OCH DOMSJO AB A97 D22 F09 =GB 1546-877
High yield pulp prodn. from ligno-cellulosic raw material - 18245Y/11
ORG 26.05.77 MORINAGA MILK KK D17 E13 =OE 7803-846
Non-hygroscopic lactulose powder prodn. - 67108A/38
ORI/ 30.07.76 MORILLON T D14 *FR 2400-840
Horizontal cylindrical rotary drum for soaking potatoes etc. - 41009B/22
OSE 25.08.77 MOSER, SOC NOUVELLE D13 *FR 2400-848
Preparing vegetables for storage, esp. tinned mushrooms - 41010B/22
OSS/ 15.11.77 MOSS A D21 E19 *EP ---2-127
Shaving compsns. contg. a cosmetically acceptable betaine - 40984B/22
OTA 08.09.77 MOTALA VERKSTAD AB D15 H09 #SF 7702-668
Refuse fired gas generator - 33540B/18

MRSC 17.06.76 MARS LTD C03 D13 =OE 7704-308
Stabilisation of protein foodstuff of high water content - 90052Y/51
MRSC 10.10.77 MARS LTD D13 (D12) =DK 7804-501
Reducing odour of fish-based food prods. - 27884B/15
MRSC 10.10.77 MARS LTD D13 (D12) =NO 7803-411
Reducing odour of fish-based food prods. - 27884B/15
MULL/ 11.10.74 MULLER H C03 D16 (D13) =CA 1054-086
Single cell protein culture from polysaccharides - 56416X/30

NAAR 17.10.75 NAARDEN INT NV A96 D21 =US 4154-816
Solid hydrophobic antiperspirant compsn. - 31308Y/18
*NAKA- 30.09.77 NAKAGAWA KAGAKU SOC D15 E31 G06 *J5 4051-249
Removal of hexavalent chromium from waste water - 41646B/22
*NATI 23.08.77 NATIVELLE ETAB B06 D16 E12 (D13) *FR 2401-130
Pure neutral potassium tartrate prepn. - 41038B/22
NATL 01.07.77 NL INDUSTRIES INC D21 L02 M22 =FR 2401-202
Organophilic clay gellant for alcohol compsns. - 72499A/40
*NAVU- 28.06.77 INST NAT VULGARISAT A92 D13 *FR 2401-066
Prepn. of treaded packaged chestnuts - 41029B/22
*NDEN 29.09.77 NISSHIN ELECTRICAL KK D15 M14 *J5 4050-142
Treatment of heavy metal-contg. sludge - 41439B/22
NEST 20.01.72 SOC PROD NESTLE SA D16 (D13) =J7 9010-635
Milk curdling enzymes prodn - 44698U/32
NEST 26.10.73 SOC PROD NESTLE SA D13 =NL -160-321
Anti-oxidants for food preservation - 30920W/19
NEST 19.12.73 SOC PROD NESTLE SA D13 (D16) =NL -160-270
Milk-coagulating enzyme for use by the milk industry - 44677W/27
NEST 17.12.74 SOC PROD NESTLE SA D13 =US 4154-864
Instantly soluble granules for drinks esp. coffee and tea - 39972X/22
*NEST 04.01.78 SOC PROD NESTLE SA D13 *BE -872-336
Removing flatulent sugars from soya - 40639B/22
NEWG- 17.11.77 NEW GENERATION FOOD D13 =DT 2850-042
Expanded foodstuff prepd. from high protein wheat - 23989B/13
NICH- 29.11.74 NICHIREKI CHEM IND D15 J04 L02 =CA 1053-811
Solidifying sludge contg. heavy metals - 53308X/28
*NIIG 28.09.77 NIIGATA ENG KK A88 D15 *J5 4050-148
Removing organic pollutants from effluent - 41442B/22
*NIKI/ 26.12.67 NIKITIN V YA B04 D16 *SU -233-165
Chlorophyll-carotene paste prodn. - 41753B/22
*NIKO 26.09.77 NIPPON KOGEI KOGYO KK D13 *J5 4049-358
Removal of heavy metals e.g. cadmium from rice grain - 41303B/22
*NINO- 26.09.77 NIPPON NOSON ISAKU D13 *J5 4049-358
Removal of heavy metals e.g. cadmium from rice grain - 41303B/22
NIOF 21.07.75 NIPPON OILS & FATS KK D13 =J7 9010-619
Improving food quality - 18795Y/11
*NIPT 27.09.77 NIPPON TENSAI SEITO KK C03 D16 *J5 4049-321
Controlling beet root rot - 41284B/22
*NIPT 28.09.77 NIPPON TENSAI SEITO KK D17 E13 *J5 4049-345
Sepg. raffinose from beet molasses - 41299B/22
*NIRA 29.09.77 UNITIKA KK A35 D15 G06 (A23) *J5 4051-252
Treating waste developing liq. contg. photosensitive resin - 41649B/22
*NIRA 29.09.77 UNITIKA KK A35 D15 G06 (A23) *J5 4051-253
Treating polyamide-contg. photosensitive resin developing waste liquor -
41650B/22
NISH- 29.08.74 NIPPON SHIZEN KAGAK D13 =J7 9010-622
Chlorophyll contg drink from dried wild rice leaves - 29060X/16
*NISY 26.09.77 NIPPON SYNTH CHEM IND A96 D21 (A14) *J5 4049-339
Hair treatment compsn. - 41296B/22
NITA 15.12.75 NITTETU CHEM ENG C04 D15 =CA 1053-513
Treatment of waste waters from fermentation processes - 45538Y/26
*NITL 18.11.77 NITTO ELECTRIC IND KK A88 D15 J01 (A26) *DT 2849-978
Self-supporting permselective polyimide membrane - 40894B/22
*NNSH 21.11.77 NIPPON SHINYAKU KK B04 D16 *DT 2850-467
Hypoglycaemic piperidine deriv. moranolin prodn. - 40914B/22
*NODA 24.09.77 NODA SANGYO KAGAKU D16 *J5 4049-391
Prodn. of alpha-amylase I or II - 41307B/22
NORM- 12.11.75 NORM AMC AG C04 D15 =OE 7608-362
Composted humus continuously produced from wet biological sludge -
19990Y/12
NOVO 23.08.77 NOVO INDUSTRI A/S D16 (D17) =FR 2401-170
Glucose isomerase activated by water-soluble iron salt - 15971B/09

*OAKE- 23.08.77 OAKES MACHINE CORP D11 *US 4154-537
Continuous mixer for baking ingredients - 42234B/22
*OKAB- 28.09.77 OKABE KINZOKU KOGYO A97 D22 J01 *J5 4049-988
Deodorising element prodn. - 41370B/22
*OKAB- 28.09.77 OKABE KINZOKU KOGYO A97 D22 J01 *J5 4049-989
Deodorising element for air, water etc. - 41371B/22
OKUR- 05.03.73 OKURA SHUZO KK A97 C03 D13 (A14) =J4 9110-895
Removing ppte. from liq. protein contg. turbid foodstuff - 41680B/22
*OKUR- 05.03.73 OKURA SHUZO KK A97 C03 D13 (A14) *J7 9010-640
Removing ppte. from liq. protein contg. turbid foodstuff - 41680B/22

OLYU 20.06.75 OLYMPUS OPTICAL KK B04 D16 =US 4154-652
Living tissue cultivation - 00349Y/01

*ONDA/ 04.06.77 ONDA K D15 E34 F09 J03 (E33) *J5 4050-603
Alkali treatment of wood - 41589B/22

OREA 19.06.72 L'OREAL SA A96 D21 E23 =CA 1054-148
Hair dyes - 03862V/03

OREA 28.05.75 L'OREAL SA A96 D21 E16 (A14 A25) =OE 7603-852
Shampoo contg. an N-vinyl pyrrolidone graft copolymer - 92405X/50

OREA 26.06.75 L'OREAL SA D21 E24 =OE 7706-872
Nitro couplers for keratinous fibre dyeing prepns. - 03916Y/03

*OREA 19.07.76 L'OREAL SA A96 B07 D21 (B04) *FR 2401-187
Surface active sequenced oligomer - 41043B/22

OREA 07.09.77 L'OREAL SA A96 D21 E19 =J5 4049-340
Hair dyeing compsn. contg. specified cationic polymer - 20012B/11

OREA 15.11.77 L'OREAL SA A96 D21 =NL 7811-298
Cosmetic compsn. based on aq. spherule dispersions - 37155B/20

ORRJ- 08.04.68 INGENJOR ORRJE & CO D15 H01 J01 =DS 1917-806
Process and plant for separating oil from a mixture - 15568R/09

*OSAS 02.05.69 OSAKA SODA KK D18 *J7 9010-601
Hair removal from animal skin or hide - 41674B/22

*OSOL 28.09.77 OSAKA AEROSOL KOGYO KK D21 G04 *J5 4049-985
Hydrous aerosol agent - 41368B/22

OTSU- 05.10.77 OTSUKA CHEM CO LTD D15 J04 =GB 2008-081
Deoxidising gas with soln. contg. hydrazine, quinone and hydroquinon - 31849B/17

*PASC- 24.09.77 PASCO INT KK D13 *J5 4049-346
Paste used for film forming, solidifying or texture improving - 41300B/22

*PATE- 11.11.77 PATENT TECHNOLOGY D11 *NL 7811-185
Single pack dried baking mixt. - 41693B/22

*PAVL= 29.07.75 PAVLODAR WINE WATER D16 *SU -612-956
Organoleptic aperitif compsn. - 41799B/22

*PAYE/ 19.12.77 PAYER D D14 *OE 7709-076
Feedstuff mixer - B/22

PERS 27.11.74 PERSONAL PRODUCTS CO A96 B07 D22 (A11) =CA 1053-855
Water dispersible biodegradable composition - 37699X/20

PERS 17.03.75 PERSONAL PRODUCTS CO A96 D22 F07 (A25 A87) =CA 1053-993
Body fluid resistant, dispersible fabric - 77861X/42

PERS 27.05.75 PERSONAL PRODUCTS CO A11 D22 (A96) =OE 7504-578
Cellulose ether insolubilised by graft polymer on skeleton - 00071X/01

PERS 16.09.77 PERSONAL PRODUCTS CO A96 D22 =J5 4050-192
Absorbent, comfortable cellulose sponge tampon prodn. - 26396B/14

*PETE- 22.11.77 PETERSON PURITAN B07 D21 E19 G04 *DT 2850-488
Water-in-oil emulsion contg. modified montmorillonite - 40918B/22

*PETX 06.04.78 PETRO-TEX CHEM CORP D15 H05 J04 *US 4154-086
Detection of volatile organic cpds. in water - 42163B/22

PETZ- 26.09.77 MASCH PETZHOLDT J S D13 =GB 2007-959
Continuous cocoa paste roasting process - 08081B/05

PFIZ 20.10.75 PFIZER INC A97 D13 (A11 D11) =NL -160-152
Low-calorie flour based on modified polydextrose - 27160Y/16

PFIZ 15.11.77 PFIZER INC D16 H01 =NL 7811-234
Fermentative prodn. of pyruvate-free xanthan - 37168B/20

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =DT 2849-393
2,5-Di:keto-gluconic acid preparation - 38984B/21

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =GB 2008-116
2,5-Di:keto-gluconic acid preparation - 38984B/21

*PHIM 18.11.77 PHILIP MORRIS INC D18 *DT 2849-904
Filter cigarette - 40885B/22

PHIP 30.09.75 PHILLIPS PETROLEUM CO C03 D16 H04 (D13) =GB 1546-691
Single-cell protein prod. from thermophilic bacillus strains - 75487X/40

*PLAN= 09.11.76 PLANT PROTECTION RES C03 D16 *SU -601-309
Conidia material of helminthosporium fungi - 41786B/22

*PLAR 18.11.77 WOELLNER-WERKE 6700 D15 M14 *DT 2751-671
Corrosion-protective sequestering water processing compsn. - 40765B/22

*POKK 22.11.77 POLA CHEMICAL IND INC D21 E12 *DT 2850-483
Cosmetic skin treatment formulation contg. an organo germanium cpd. - 40915B/22

POKK 22.11.77 POLA CHEM IND KK D21 E12 =GB 2007-975
Cosmetic skin treatment formulation contg. an organo germanium cpd. - 40915B/22

POKK 22.11.77 POLA CHEM INDS INC D21 E12 =GB 2007-975
Cosmetic skin treatment formulation contg. an organo germanium cpd. - 40915B/22

POLA/ 19.03.75 POLASEK P A91 D15 =GB 1546-820
Effluent clarification system - 74403X/40

POLI- 09.12.76 POLICHIMICI GUABER D22 =US 4154-398
Room deodoriser in form of an ashtray - 47090A/26

PROC 22.07.68 PROCTER & GAMBLE CO D24 E11 =NL -160-329
Weakly to moderately foaming detergents - 05547R/04

PROC 31.01.74 PROCTER & GAMBLE CO D25 E19 =OE 7500-705
Detergent compsn contg. smectite clay - 54025W/33

PROC 06.06.75 PROCTER & GAMBLE CO A94 D22 F04 (A23 A96) =FR 2401-253
Continuous mfr. of composite non woven matting - 94323X/51

PROC 23.06.75 PROCTER & GAMBLE CO B05 D21 E14 =OE 7604-5
Bis biguanides for use in compsns. for tooth care - 03257Y/02

*PROC 17.11.77 PROCTER & GAMBLE CO A97 D25 E16 (E14) *EP ---2
Granular detergent contg. alkoxylated cationic surfactant - 40967E

*PROC 21.11.77 PROCTER & GAMBLE CO A87 D25 E19 F06 *DT 2849
Textile softening compsn. - 40886B/22

*PROC 21.11.77 PROCTER & GAMBLE CO A87 D25 F06 *EP ---2-085
Textile conditioning compsn. - 40968B/22

PROJ- 17.08.77 PROJEKTIERUNG CHEM D17 =SF 7802-478
Sugars and opt. cellulose and lignin extn. from vegetable ma
14176B/08

QUAK 08.05.75 QUAKER OATS CO D12 =CA 1053-500
Textured protein for use as a meat substitute prepn. - 47883X/25

QUAK 08.10.75 QUAKER OATS CO C03 D13 =CA 1053-499
Dry pet food with good storage stability - 11074Y/06

RALS 15.05.74 RALSTON PURINA CO C03 D13 =CA 1053-498
High-fat pellet form animal feedstuff - 79137W/48

RALS 11.11.77 RALSTON PURINA CO D13 #NL 7712-415
Proteinaceous food product prodn. of good toughness - 17550A/09

RANG 01.06.77 RANK HOVIS MCDOUGAL LTD D16 =FR 2401-221
Aerobic fermentation acceleration - 91709A/51

*RAUS- 00.00.78 RAUSCHER & CO VERBA D22 *OE 7803-466
Wound compress making device - B/22

REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =J5 4049-387
Plasmid contg. gene from a higher organism - 70827A/40

REGC 23.09.77 UNIV OF CALIFORNIA B04 D16 =J5 4048-775
Purifying nucleotide sequences for insertion into microorgani
80247A/45

RHEH 26.08.77 VKI-RHEINHOLD & MAH D15 H03 J01 =FR 2401-214
Removal of oil from contaminated surfaces - 20153B/11

RHEO- 10.03.75 RHEON AUTO MACH D11 =FR 2400-844
Multilayer pastry machine - 74285X/40

RHOD/ 04.03.77 RHODES J A96 D22 G03 =FR 2400-907
Medical adhesive gel e.g. for surgical tape - 65276A/37

RHON 22.08.75 RHONE-POULENC INDUSTRIES A13 B04 D16 (A9
=OE 7606-222
Stable latex of styrene polymer with terminal thio-aniline
12782Y/08

RHON 26.02.76 RHONE-POULENC INDUSTRIES A11 D16 H01 =
4154-654
Polysaccharide prepn. by carbohydrate fermentation - 65293Y/37

RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 =CA 10
144
Antibacterial cephalosporanic acid derivs. - 92451X/50

RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 =CA 10
145
Antibacterial cephalosporanic acid derivs. - 92452X/50

RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 =CA 10
146
Antibacterial penicillanic acid derivs. - 92453X/50

RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 =CA 10
147
Antibacterial penicillanic acid derivs. - 92454X/50

*RICH- 28.01.77 RICH PRODUCTS CORP D11 *US 4154-863
Intermediate moisture frozen batters - 42345B/22

RICH/ 31.10.78 RICHARDSON A C B04 D16 J04 =GB 2008-103
Enzymatic analysis using nitro-styrene derivs. - 18088B/10

RICT 25.08.77 RICHTER GEDEON VEGY C03 D15 (D13 D15) =FR 24
102
Sewage sludge used to mfr. nutritious animal feed - 16007B/09

RICT 25.08.77 RICHTER GEDEON VEGY C03 D15 (D13 D15) =SF 78
593
Sewage sludge used to mfr. nutritious animal feed - 16007B/09

*RIKL 26.06.78 RIKER LABS INC B02 C02 D22 E13 *US 4154-847
2-Nitro-3-phenyl benzofuran-carbox:aldehyde(s) and derivs. - 42341

*RIKV 27.09.77 RIKEN VITAMIN OIL KK D13 (D16) *J5 4049-354
Ageing inhibitor for rice cake - 41301B/22

ROHM 17.06.76 ROHM & HAAS CO D16 J04 =CA 1053-549
Automatic heated block type incubator - 19747Y/11

ROHM 27.06.77 ROHM & HAAS CO A91 B04 D15 E19 (A13 D13 D17
=FR 2401-190
Crosslinked anion-exchange resin - 05441B/03

*ROHM 23.11.77 ROHM & HAAS CO D22 *EP ---2-072
Removing bacteria from liq. - 40964B/22

RTMN 15.07.76 ROTHMANS PALL MALL LTD D18 F09 =DS 2732-097
Cigarette wrapping paper tape - 06770A/04

RUME- 16.06.76 RUMEN CHEMIE AG C03 D13 =OE 7704-234
Supplementary feeding of iron to piglets - 00447A/01

SAAR/ 12.09.77 SAARI R D15 J01 =SF 7802-784
Evaporation of liquids in multi-effect system - 29959B/16

*SAFA= 28.07.74 SARAT FAT COMBINE D23 J04 *SU -617-066
Spent nickel-ceramic catalyst regeneration - 41848B/22

SAGA- 13.11.75 SAGAPHA AG A97 D25 (A82) =OE 7606-893
Conditioning deformable gelatin microcapsules contg. stain remov
18218Y/11

SALV- 07.10.77 SALVE S A D22 =DK 7804-452
Surgical bandage pack - 29976B/16

7.10.77 SALVE SA D22 =NO 7803-400
cal bandage pack - 29976B/16
7.10.77 SALVE SA D22 =SW 7711-267
ical bandage pack - 29976B/16
28.03.75 SAN EI CHEM IND KK B07 D13 E24 =J7 9010-568
enting fading of paprika pigment - 87577Y/49
14.01.74 SANDOZ AG B04 D16 =SU -616-997
. of immunogens hemagglutine and neuraminase - 50924W/31
08.07.75 SANDOZ-ERFINDUNGEN B04 C03 D16 =OE 7604-924
fungal antibiotic S 31794/F-1 - 06057Y/04
09.04.76 SANDOZ-ERFINDUNGEN B03 C02 D16 =OE 7702-481
biotics S7481/F-1 and F-s - 72608A/40
28.09.77 SANKYO KK B05 C03 D18 *J5 4050-700
roving gloss of e.g. fox, mink, rabbit or badger fur - 41614B/22
17.11.77 SANRAKU OCEAN B02 C02 D16 *EP ---2-058
es:acetyl antibiotic PS-5 - 40957B/22
28.09.77 SATO M D11 *J5 4049-355
dn. of noodles having fine pore structure - 41302B/22
/ 18.08.77 SCHANZE R C03 D13 =OE 7706-666
d or feed additives for cattle from agricultural waste - 12320A/07
29.11.74 SCHERICO LTD B05 C03 D22 =NO 7900-908
ibacterial desoxystreptamines - 44034X/24
/ 31.01.77 SCHULTZ H W B05 C03 D21 E19 (B03 C02) *US 4154-952
clopropane derivs. prepn. - 42388B/22
26.08.77 SEIKEN KAI FOUNDATI B04 D16 #FR 2400-901
tobacillus preparation for treating inflammatory diseases - 71815Y/40
30.09.77 SHINETSU CHEM IND KK A26 D15 F09 (A97 D13) *J5 4050-

yalkylene modified organo:siloxane and organo:polysiloxane mixt. -
513B/22
29.09.77 SHINMEIWA IND KK D15 *J5 4050-476
moving nitric acid type nitrogen from waste water - 41503B/22
29.09.77 SHINMEIWA IND KK D15 E35 *J5 4051-251
covering ammonia from waste water using zeolite adsorbent -
648B/22
06.08.74 SHIONOGI KK B05 C03 D13 E14 (B02 B03) =DS 2535-171
oyl-aryl-substd. dipeptides - 00113X/01
06.08.74 SHIONOGI KK B05 C03 D13 E14 (B02 B03) =US 4154-727
oyl-aryl-substd. dipeptides - 00113X/01
25.08.77 SHIONOGI KK B02 C02 D22 E13 =FR 2401-165
Thiadiazolyl-thiomethyl-oxa-de:thia-cephem derivs. - 01945B/02
25.08.77 SHIONOGI KK B02 C02 D22 E13 =SF 7802-586
Thiadiazolyl-thiomethyl-oxa-de:thia-cephem derivs. - 01945B/02
26.08.77 SHISEIDO KK A96 D21 (A18) =FR 2400-890
ake/up compsn. for use around eyes - 18297B/10
24.09.77 SHISEIDO KK A96 D21 (A13 A14) *J5 4049-338
ake/up cosmetics - 41295B/22
/ 28.09.77 SHISHKOVA Z P C03 D16 (D13) #J5 4049-390
ulture media contg. vegetable matter and peat hydrolysates -
6539B/14
01.02.78 SIEMENS SA D15 E19 J04 *BE -873-833
utomatic determn. of organic substances in water - 40684B/22
HL 25.05.78 SIMON HARTLEY LTD D15 *BE -873-750
hickening activated sludge - 40664B/22
N 14.11.74 SMITH & NEPHEW PHAR A96 D22 =CA 1053-578
terilising hydrophilic polymer, esp contact lenses - 40462X/22
T/ 19.05.76 SMITH D P D14 *US 4154-861
Cooking food in columns of hot gas - 42343B/22
AM 28.05.74 SNAMPROGETTI SPA D16 E17 #J7 9010-637
nzymic L-malic acid prepn - 84010V/48
AM 15.07.75 SNAMPROGETTI SPA C03 D13 =SU -616-995
Mycotoxins extraction from feed grade vegetable flour - 06154Y/04
AM 23.12.76 SNAMPROGETTI SPA C03 D16 H04 (D13) =DS 2757-877
Methanol-utilising Candida strain - 45864A/26
AM 14.09.77 SNAMPROGETTI SPA D15 =J5 4050-481
Multistage evapn. plant to desalinate sea-water, etc. - 18035B/10
KM 16.11.76 SANKIN IND CO A96 D22 (A14) =US 4154-717
Hydraulic dental cement mixt. - 38800A/22
LB- 26.10.70 SOLBERN CORP D13 =NL -160-214
Slicing and packing appts - 36191U/26
ON 02.06.72 SPONCEL LTD D15 =US 4154-675
Ion exchanger purification plant - 78449U/51
AD 20.03.78 STANDARD OIL CO (IND) D13 (D16) *US 4154-726
Dissolution of single-cell microorganisms - 42306B/22
AD 20.03.78 STANDARD OIL CO (IND) D13 F01 *US 4154-856
Stretching coagulable extrudate in coagulating bath - 42342B/22
AM 25.01.74 STAMICARBON BV D22 E13 =CA 1053-687
Purification of coumarin and its alkylated derivs - 52773W/32
AN- 24.08.76 STANGE CO D13 *US 4154-866
Liquid smoke prodn. from wood tar - 42346B/22
AR/ 30.06.65 STARKE A D13 *DS 1492-849
Porous dessert piece prepn. - 40712B/22
AU 20.01.75 STAUFFER CHEMICAL CO B05 C03 D22 H01 (D15) =OE
06-024
1,3-Dichloro-acetone oxime alkyl carbonates - 58200X/31
AU 20.01.75 STAUFFER CHEMICAL CO B05 C03 D22 H01 (D15) =OE
06-025
1,3-Dichloro-acetone oxime alkyl carbonates - 58200X/31
STEINER S S INC D16 =US 4154-865

*STEQ 17.04.78 STEYR-DAIMLER-PUCH AG D14 *OE 7802-649
Cutter for conveyor channel moving stalked material - B/22
STER 10.11.77 STERLING DRUG INC D15 =NL 7811-092
Treating waste water by biological oxidn. and carbon adsorption - 35262B/19
STIL 09.09.77 STIERLEN-MAQUET AG D22 =J5 4050-184
Disinfecting hospital operating theatres and other rooms - 22368B/12
STLW 01.09.77 STILLE WERNER AB D22 =SF 7802-646
Easy removal of tubular surgical splint from encased limb - 01976B/02
STOR- 18.06.75 STORK-GAMCO INC D12 =US 4153-972
Poultry processing machine - 43142U/31
*STOR- 02.02.78 STORK-GAMCO INC D12 *US 4153-971
Stunning trough for immobilising poultry before slaughter - 42141B/22
STRE- 20.07.72 STRENGER ASSOC INC D13 =SU -617-002
Carbonated water prodn appts - 01415V/01
*STRI/ 19.11.77 STRICKER H D22 (D16) *DT 2751-778
Beer piping cleaning system - 40776B/22
STUD 16.04.63 STUDIENGES KOHLE MBH D13 E19 H02 J01 =J7 9010-539
Sepn of organic cpds - 01425U/02
*STUS/ 10.11.77 STUSSI W E D13 *EP ---2-037
Filling containers with fruit on top yogurt - 40944B/22
SULZ 18.03.77 GEBR SULZER AG C04 D15 =OE 7801-666
Electron beam irradiation plant for fertiliser prodn. from sludge - 67084A/38
SUMO 07.05.75 SUMITOMO CHEMICAL KK D15 J04 =CA 1054-036
Determination of nitrogen and carbon and aq. solns. - 92831X/50
SUMO 12.08.75 SUMITOMO CHEMICAL KK A91 D15 J04 =CA 1053-550
Analysing trace components in liqs. esp. water - 13288Y/08

TAIT 14.07.71 TAITO KK D13 E24 =J7 9010-567
Extraction of pigment from cacao bean shells - 20059V/11
*TAKA- 28.09.77 TAKASAGO NETSUGAKU D22 *J5 4049-981
Deodorising air from sewage and night soil treating plant - 41365B/22
*TAKE 26.09.77 TAKEDA CHEMICAL IND KK D12 *J5 4049-365
Improving the quality of frozen ground fish meat etc. - 41304B/22
*TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 *DT 2849-666
Macrocyclic antibiotic C-15003 P-4 - 40871B/22
*TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 *DT 2849-696
Macrocyclic antibiotic C-15003 P-3 - 40873B/22
*TAKJ 30.09.77 TAISEI CONSTRUCTION KK D15 (D22) *J5 4051-250
Waste water treatment - 41647B/22
TANA 22.10.73 TANABE PHARMACEUTICAL KK A97 D16 E17 =J7 9010-636
Purer L-malic acid prodn - 29447W/18
TATL 22.11.78 TATE & LYLE LTD D16 (D13 D17 D21) =GB 2008-138
Polysaccharide prepn. from Xanthomonas - 39365B/21
TEEP 08.05.74 TEE PAK INC A97 D12 (A18 A23) =CA 1053-418
Fibrous sausage casing prodn. - 83123W/50
*TEIJ 30.09.77 TEIJIN KK A23 D23 (A60) *J5 4050-568
Polyester extrusion-foams prodn. - 41564B/22
TENC 09.07.68 TENNECO CHEMICALS B05 C01 D13 E12 =NL -160-241
Compacted sodium benzoate prods with easy solubility - 03424R/03
TENC 22.08.77 TENNECO CHEMICALS D22 E13 G02 =FR 2401-206
Aq. pigment dispersion contg. polyoxymethylene oxazolidine biocide - 82193A/46
TENC 22.08.77 TENNECO CHEMICALS A81 D22 E13 G03 =FR 2401-211
Aq. adhesive compsns. contg. polyoxymethylene oxazolidine cpds. - 82192A/46
TENU/ 31.05.77 TENUTA A D13 =FR 2400-847
Preparation of deep frozen tomatoes - 92352A/51
TETR 29.05.76 TETRA PAK DEV SA A35 D22 E37 (A92 E13 E14) =CA 1053-437
Sterilising packaging material surfaces - 57718Y/33
TETZ/ 15.01.75 TETZLAFF K H D14 K08 (D22) =CA 1053-808
Gamma irradiation esp of foodstuffs or medicinal articles - 57974X/31
THER- 24.11.65 THERACHEMIE CHEM-TH D21 E11 =NL -160-161
Phosphoric acids - 62460Z/00
*THET- 11.11.77 THETFORD CORP D15 *EP ---2-115
Bacteriological closed loop toilet waste system - 40979B/22
TIDN- 11.03.75 TIDNINGS PAPPERS BRUKENS A97 D15 F09 =GB 1546-813
Removing colloidal impurities from aq. dispersions - 74363X/40
*TIMM/ 08.12.77 TIMMER H D15 J01 *US 4154-683
Appts. for sepg. oil film from water e.g. in a metal working machine - 42287B/22
*TITA= 17.01.77 TITANIUM EXPER INST D15 E36 *SU -617-366
Chemical industry waste water purificn. - 41958B/22
TIVE- 14.09.77 TIVET DEV LTD D12 =SF 7802-816
Moulding sausages etc. with coherent skin-like surfaces - 22039B/12
*TOKA/ 26.08.77 TOKARZ R D D15 H03 *US 4154-684
Floating porous discs on water oil spills - 42288B/22
*TOKE 21.06.77 TOKYO SHIBAURA ELEC LTD D22 *J5 4008-162
Gas deodorising appts. - 41140B/22
*TOKE- 17.11.77 TOKYO EIZAI LAB A96 D22 (A23) *GB 2008-163
Surgical immobilising bandage of good mouldability - 41104B/22
*TOMI/ 05.07.76 TOMIHISA K D15 F09 J01 M24 *J5 4048-960
Treatment of industrial waste water e.g. from steel plant - 41255B/22

*TOMI/ 23.11.77 TOMIC D A96 D21 (A14 D22) *EP ---2-064
Spongy prosthesis cement for dentistry and surgery - 40959B/22
*TOPP 21.11.77 TOPPAN PRINTING KK D13 *DT 2843-499
Preserving vegetables and fruit during storage - 40838B/22
TOPP 21.11.77 TOPPAN PRINTING KK D13 =GB 2007-965
Preserving vegetables and fruit during storage - 40838B/22
TORA 09.12.74 TORAY INDS INC D15 J04 =J7 9010-519
Determining oxygen demand of combustibles in aq halide dispersion - 46466X/25
*TORD/ 29.10.76 TORDUA S V A93 D16 L02 *SU -617-512
Electrochemical reinforcement of ground for building industry - 42100B/22
TOSC- 09.01.74 TOSCARA ANSTALT D13 =CA 1053-501
Cream cheese and yoghurt prodn. - 40955W/25
TOXN 25.03.74 TOYO BREWING KK A97 B04 D16 J04 =CA 1054-128
Semi permeable, cellulose microcapsules contg. powdered adsorbent - 68361W/41
TOXN 04.10.77 TOYO BREWING KK B04 D16 =DK 7804-369
Fermentative prodn. of sarcosine oxidase - 30022B/16
TOXN 04.10.77 TOYO JOZO KK B04 D16 =SW 7810-355
Fermentative prodn. of sarcosine oxidase - 30022B/16
TRIP- 26.08.77 TRIPLUS SJUKVARDSPR D22 =FR 2400-884
Surgical drape with central hole - 18511B/10
TSUC/ 00.00.76 TSUCHIYA T C03 D23 =J7 9010-563
Viscous, antiseptic, antifungal liq. from rice bran oil or wax - 51159Y/29

UHDE 24.05.77 UHDE F GMBH D15 =FR 2401-100
Demineralised water prodn. - 70828A/40
*UMEZ/ 11.01.66 UMEZAWA F D21 E12 (E34) *J7 9006-612
Soln. for removing permanent wave from hair - 41653B/22
UNIC 10.05.73 UNION CARBIDE CORP D15 J01 =OE 7702-025
Ultra filtration using porous tubes - 83108V/48
UNIC 10.05.73 UNION CARBIDE CORP D15 J01 =OE 7702-027
Ultra filtration using porous tubes - 83108V/48
UNIC 10.05.73 UNION CARBIDE CORP D15 J01 =OE 7702-028
Ultra filtration using porous tubes - 83108V/48
UNIC 14.05.76 UNION CARBIDE CORP D12 =OE 7703-446
Food stuffing device for skins - 83304Y/47
UNIC 22.03.77 UNION CARBIDE CORP A97 D12 (A11) =US 4154-857
Articles mfr. from collagen, esp. sausage wrapping - 68906A/39
UNIC 25.08.77 UNION CARBIDE CORP D22 =FR 2401-075
Shrink wrapped stick of concertina folded tubular sausage casing - 15999B/09
UNIC 25.08.77 UNION CARBIDE CORP D22 =SF 7802-583
Shrink wrapped stick of concertina folded tubular sausage casing - 15999B/09
UNIL 01.04.70 LEVER BROTHERS CO B05 D21 =US 4154-815
Anti-plaque and anti-calculus tooth paste compsn. - 38400A/21
UNIL 25.07.70 UNILEVER NV D13 (D23) =NL -160-154
Margarine fat-contg at least three per cent trans acid - 09390T/06
UNIL 09.08.72 UNILEVER LTD A91 D15 J01 =CA 1053-417
Semi-permeable membrane - 13387V/08
UNIL 09.08.72 UNILEVER NV A91 D15 J01 =OE 7306-955
Semi-permeable membrane - 13387V/08
UNIL 19.01.73 LEVER BROTHERS CO D25 =US 4154-694
Flowing cleaning compsn. contg. scouring bleaching agents - 55576V/31
UNIL 03.10.73 UNILEVER NV D21 E34 =OE 7407-887
Monofluorophosphate addn. to transparent tooth-pastes - 26220W/16
UNIL 06.11.73 UNILEVER NV D25 E17 =OE 7408-852
Sulphonation of sec. ethoxylated alcohols - 32878W/20
UNIL 29.04.75 UNILEVER LTD A97 D25 E12 =CA 1054-016
Aq. detergent compsn. contg. sodium-tripolyphosphate - 84988X/46
UNIL 22.10.75 UNILEVER NV D25 E16 =OE 7607-808
Fabric softeners compatible with anionic detergents - 29088Y/17
UNIL 22.08.77 UNILEVER NV D25 E34 =FR 2401-220
Aq. liq. detergent compsn. prepn. for washing clothes etc. - 14186B/08
UNIL 22.08.77 UNILEVER NV D25 E34 =SF 7802-495
Aq. liq. detergent compsn. prepn. for washing clothes etc. - 14186B/08
UNIL 22.08.77 UNILEVER NV A97 D25 =SF 7802-509
Coloured specks for addn. to washing powders - 21208B/11
UNIL 26.08.77 UNILEVER NV A96 D21 =FR 2400-891
Non-irritant, non-tacky antiperspiration compsn. - 20277B/11
UNIL 26.08.77 UNILEVER NV A96 D21 =SF 7802-559
Non-irritant, non-tacky antiperspiration compsn. - 20277B/11
UNIL 05.10.77 UNILEVER NV D25 E12 (D21 E17) =SW 7810-414
Liq. soap prod. contg. specified potassium soaps - 25934B/14
UNIL 06.10.77 UNILEVER NV D18 E11 =DK 7804-435
Nourishing tanned leather - 27865B/15
UNIL 06.10.77 UNILEVER NV D18 E11 =SW 7810-454
Nourishing tanned leather - 27865B/15
UNIL 18.10.77 UNILEVER NV A96 D22 (A25) =GB 2007-998
Particulate absorption material with improved wettability with blood - 31891B/17
UNIL 10.11.77 UNILEVER NV A97 D25 =NL 7811-137
Alkaline particulate detergent compsns. for washing cloth
37143B/20
UNIL 14.11.77 UNILEVER NV A96 B04 C03 D13 =NL 7811-230
Immunisation of poultry to coccidiosis - 39366B/21
UNIL 18.11.77 UNILEVER NV D25 E19 (E37) =DT 2849-225
Aq. bleaching compsn., esp. hypochlorite, coloured by
38987B/21
*UNTE- 24.08.77 UNION TECHN AQUITAI D14 *FR 2401-393
Hot air conveyor dryer for fruit, vegetables etc. - 41057B/22
UNVO 07.10.75 UOP INC D15 F09 J01 (D13) #CA 1054-266
Membrane sepn. process combined with froth flotation - 05790Y
UPJO 05.05.77 UPJOHN CO A60 B02 D22 E13 =US 4154-938
Decomposition prods. of rubradirin antibiotics - 84365A/47
UPJO 05.05.77 UPJOHN CO A60 B02 D22 E13 =US 4154-939
Decomposition prods. of rubradirin antibiotics - 84365A/47
UPJO 05.05.77 UPJOHN CO A60 B02 D22 E13 =US 4154-940
Decomposition prods. of rubradirin antibiotics - 84365A/47
UPJO 17.10.77 UPJOHN CO B04 C03 D16 H07 =GB 2008-088
Antibiotic CC-1065 - 31828B/17
*UPRI- 03.10.77 UP-RIGHT INC D16 *US 4154-161
Side-loading pulp press - 42171B/22
*USDA 18.06.75 US SEC OF AGRICULTURE D13 E13 *US 4154-862
Reduction of bitterness and/or of after-taste - 42344B/22
*USMC 07.06.75 BRITISH UNITED SHOE D18 *GB 1546-787
Embossing press for leather workpiece - 41071B/22
USMC 19.10.77 USM CORP D17 =GB 2007-996
Sugar cane crushing mill - 33608B/18

VALC 15.12.76 VER ALUMINIUM WERKE AG D15 E31 M25 =OI
566
Ammonium vanadate prodn. - 15857A/08
VENT- 22.11.77 VENTURATOR LTD D15 J02 =DT 2758-923
Submerged gas injector to aerate waste water etc. - 47752A/27
VERB/ 09.10.68 VERBANDT A D15 =NL -160-352
Purification of liquids, particularly water - 45453R/25
VERE 20.03.76 VER PAPIERW SCHICKEDANZ A97 D25 E14 F0
A91) =OE 7609-791
Cleansing cloth contg. detergent - 70901Y/40
*VESO/ 20.12.76 VESOVA V S A35 D15 J03 *SU -617-384
Removal of acrylic latex residue from aq. waste - 41976B/22
VGIM- 18.07.74 PROBAT VON GIMBORN D14 J01 =DS 2462-623
Grading freely flowing materials by particle weight - 09497X/06
VILJ/ 06.09.77 VILJANMAA A D18 =SF 7702-643
Stretching hides in frames for drying - 04115B/03
*VINN= 07.07.76 VINNITSA POLY D15 J04 *SU -617-375
Liquids magnetic treatment appts. - 41967B/22
VIVO 17.05.74 MORTON-NORWICH PROD INC D15 #CA 1054-26
Liq. ion exchange treatment appts - 82565V/48
*VODG= 14.02.77 VODGEO WATER SUPPLY D15 *SU -617-382
Automatic regulator for gas in effluents oxygenation tank - 4197
*VODG= 01.03.77 VODGEO WATER SUPPLY D15 *SU -617-383
Automatic controller for sewerage settling tanks operation - 4197
VTOP/ 21.11.77 VANDEN TOP H D16 =BE -872-196
Mushroom harvesting machine - 40908B/22
*VTOP/ 21.11.77 VAN DEN TOP H D16 *DT 2850-317
Mushroom harvesting machine - 40908B/22

WADL 25.08.77 WADLEY RES INST BLOOD BK B04 D16 =FR 2401
Fungal growth medium containing purified saponin - 23813B/12
*WASU 19.08.75 WATER SUPPLY HYDROGEOL D15 J01 *SU -617-
Potable water clarification cartridge filter - 41831B/22
WEBE/ 00.00.74 WEBER E D15 =DS 2428-442
Transporting and dewatering solids raked up from sewage
00374X/01
WELA 18.06.76 WELLA AG A96 D21 (A11) =OE 7704-295
Hair setting agent comprising soln. of chitosan salt - 02331A/02
WERN 27.08.77 WERNER & PFLEIDERER D11 =FR 2400-843
Confectionery chamber in multistage baking oven - 20162B/11
WERN 27.08.77 WERNER & PFLEIDERER D11 =OE 7804-634
Confectionery chamber in multistage baking oven - 20162B/11
*WESL- 24.01.77 WESLEY-JESSEN INC D22 *CA 1053-874
Sterilising vials in block of thermal insulation - 40700B/22
WIGG 02.08.76 WIGGINS TEAPE LTD A88 D18 F09 =CA 1053-94
Fibrous element e.g. cigarette filter formed from fibre susp
86637Y/49
WISC 28.02.75 WISCONSIN ALU RES FOUND B05 D13 =SW 781
1-Alpha, 25-Dihydroxy-cholecalciferol prepn - 71626X/38
*WITC 23.12.74 WITCO CHEMICAL CORP D25 E19 *US 4154-955
Sulpho-succinic acid ester-amide(s) - 42389B/22
WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =NL 781
Wood protection against moisture-induced decay - 18077B/10
WORL- 21.11.77 WORLD POTATO CORP D13 =DT 2850-401
Precooked potato prods. - 24002B/13

07.07.76 WORTHINGTON PUMP IN D16 =DS 2708-653
emical sewage treatment tank - 90421Y/51

25.12.75 YAMANOUCHI PHARM KK B02 D16 =OE 7609-581
ethoxy cephalosporins fermentative prodn. - 29215Y/17
06.05.76 YASTREBOV P I D15 H05 *SU -617-380
ner for petroleum-contg. aq. effluent - 41972B/22
12.07.75 YORKSHIRE CHEMICALS A97 D18 *GB 1546-790
ing hide and skin - 41072B/22
1.03.75 YTKEMISKA INSTITUTE A97 D15 F09 =GB 1546-813
oving colloidal impurities from aq. dispersions - 74363X/40

25.08.77 ZAIDAN HOJIN BISEIB A97 B04 D16 =FR 2401-171
fication of macromomycin antitumour antibiotic - 18537B/10
25.08.77 ZAIDAN HOJIN BISEIB B04 D16 =FR 2401-172
ibacterial and antitumour protein antibiotic auromomycin - 69B/11
07.06.76 ZAIKOV M A D15 J04 *SU -617-374
ice for magnetic treatment of cooling fluid - 41966B/22
04.10.77 VEB ZIERKERZEN DRES D23 M13 #DK 7704-384
x candles coated with decorative metal pattern - 28829A/16

D
19 Q00
39 R03
12 S37
88 S39
76 W52
19 X41+
58 X45+
61 Q01
87 Q01
26 Q01
84 Q01
560 Q01
519 A33+
518 A33+
638 B22+

BDE
165 Q00
238 R23
764 R29
127 R35
526 S32
639 T08
-724 V14
-171 Y24
-914 Y37+
-615 B05
-164 B22

BDE
-006 Q00
-162 B22

BCDE
-871 R03
2-616 R24
0-965 R29
9-898 R29
1-089 T24
3-871 U39
0-241 B22

DE
6-843 R04
4-675 R29
5-145 S25
1-455 S39
0-734 S41
9-378 T14
6-843 A20
0-329 B22

AD
1-077 R06
6-444 S27
7-058 X27
0-348 B22

R BCD
12-331 R09+
37-575 R09
40-388 R09
15-913 R35
05-965 S16
44-530 S34
82-338 S36
11-238 S41
90-937 T05
26-553 T42
17-655 U10
39-574 V41+
01-886 W44+
39-664 X04+
00-115 X05+
40-388 Y38
407-401 A05+
905-725 A05+
407-400 A05+
557-755 A30+
159-662 B13+
617-011 B22

-R DHJ
005-793 R09
218-878 S02
574-096 S15
507-162 S27
891-030 T05
917-806 B22

-R ADE
739-766 R14
913-512 R16
801-712 R21
020-112 R44
661-851 T22
288-239 T36

CH -542-189 U51
J7 4028-168 V33
US RE29-243 Y23
NL -160-248 B22

33005-R DJ
NL 6916-686 R19+
FR 2022-617 R47
GB 1238-976 S27
US 3630-854 T05
J7 9010-543 B22+

44878-R D
FR 2013-403 R25
US 3625-702 T02
CA -898-050 T18
GB 1275-269 T21
CH -556-142 V52
DS 1792-084 B22

45453-R D
DT 1950-710 R25+
FR 2020-220 R42
GB 1277-627 T24
DS 1950-710 W45+
NL -160-352 B22+

51115-R D
CA -846-620 R29
GB 1217-178 R51
US 3607-578 S42
DS 1760-171 B22

08121-S DE
BE -753-751 S04+
NL 7012-137 S09
DT 2036-936 S28
CA -879-136 S35
FR 2058-364 S36
DT 2064-921 S38
DT 2064-919 S38
DT 2064-918 S39
DT 2064-920 S40
US 3636-165 T08
US 3636-176 T08
US 3647-826 T14
CH -523-962 T34
US 3681-464 T46
DT 2064-921 T46
US 3703-479 T48
GB 1300-970 T52
US 3751-500 U35
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43142-U D
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20059-V DE
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39947-V DE
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OE 7402-015 B22+

55576-V D
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82565-V D
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OE 7403-272 X28+
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J7 9008-471 B19
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84010-V DE
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J7 9010-637 B22+

16409-W D
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CA 1053-962 B22

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GB 1445-997 X33
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OE 7408-852 B22

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40955-W D
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DT 2500-224 W30+
SW 7415-116 W35+
DK 7406-323 W39+
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IT 1028-000 B11+
CA 1053-501 B22+

42650-W DEJ
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CA 1054-142 B22+

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64691-W AD
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OE 7505-724 Y22
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NL -160-155 B22+

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PT --64-119 X33+
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GB 1492-258 Y46+
US 4059-489 Y48+
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CA 1054-084 B22+

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SF 7502-275 X19+
DK 7503-652 X21+
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16265-X ABD
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17638-X DE
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US 4154-817 B22

19106-X CD
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GB 1478-552 Y27
DS 2535-963 B22

19125-X DE
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NL 7509-668 X11+
J5 1043-707 X22+
FR 2282-418 X23+
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GB 1508-196 A16
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22829-X BD
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CA 1053-661 B22

24979-X ADJ
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27132-X BD
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J7 9010-634 B22

28685-X ADE
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98 X49+
23 X49+
18 X52+
90 Y03+
94 Y04+
89 Y10+
75 Y25+
63 Y30+
31 Y46+
44 B04+
95 B22+

CD
185 X49
981 X49
077 Y04
706 Y10+
229 A23
952 B22

ADE
260 X50
560 X51
691 X51
741 Y05
232 Y11
301 Y38
127 A20
106 A33
852 B22

BCD
-402 X50
-100 Y07
-006 Y07
-794 Y11
-545 Y11
-160 Y14
-641 Y18
-060 Y18
2-965 Y19
-248 Y26
-750 A01+
-144 B22

BCD
4-403 X50
7-827 Y07
2-051 Y07
4-795 Y11
2-544 Y11
8-159 Y14
8-640 Y18
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3-247 Y26
3-956 Y28
4-145 B22

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44-404 X50
94-876 X50
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32-019 Y07
14-796 Y11
02-542 Y11
08-157 Y13
18-630 Y18
03-130 Y19
03-205 Y26
19-720 B08
54-146 B22

X BCD
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94-877 X50
08-063 Y07
32-018 Y07
014-797 Y11
02-543 Y11
08-158 Y13
18-631 Y18
03-129 Y19
03-411 Y26
91-178 Y45+
49-798 B08
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540-275 B06+
054-036 B22+

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606-048 X52

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BE -843-244 Y03+
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DK 7602-833 Y11+
SW 7607-090 Y11+
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GB 1544-977 B17+
OE 7604-517 B22+

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OE 7706-872 B22+

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SW 7604-127 Y07+
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DK 7602-189 Y12+
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DT 2605-420 Y36
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DK 7504-357 Y24+
FR 2326-980 Y28+
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GB 1519-322 A30+
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06057-Y BCD
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SU -616-995 B22

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US 4154-655 B22+

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GB 1546-681 B22+

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18795-Y D
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DK 7605-094 Y32+
FR 2331-522 Y33+
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PT --65-832 Y43+
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OE 7608-362 B22+

23563-Y D
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NL -160-152 B22+

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29215-Y BD
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• 010 41381B D25E34P2P4
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=045 29695B A81D22G03P3
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• 142 41439B D15M14
• 144 41440B D15M14
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• [illegible]57B A89B04D16J04R1R4
• 397 [illegible]458B A89D15J04R1
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CENTRAL PATENTS INDEX

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Section D:

FOOD
DETERGENTS

ABSTRACTS

INDEXES

- II - PATENTEE
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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	29 MAY - 4 JUN 79	872,350 - 872,483
-Non Delayed	29 MAY 79	873,868 - 874,025
BRAZIL	22 MAY 79	7,410,228 - 7,900,897
CANADA	15 MAY 79	1,054,301 - 1,054,750
	22 MAY 79	1,054,751 - 1,055,200
SWITZERLAND	15 MAY 79 + 31 MAY 79	610,695 - 611,480
DENMARK	14 MAY 79	7,206,179 - 7,804,620
W. GERMANY		
-DAS	31 MAY 79	1,455,427 - 2,519,404
-OLS	31 MAY 79	2,555,323 - 2,851,910
FRANCE*	30 MAR 79 (BOPI 4 MAY 79)	2,401,596 - 2,402,390
UNITED KINGDOM	6 JUN 79	1,546,961 - 1,547,320 2,008,371 - 2,008,910
HUNGARY	28 MAY 79	H002,428 - H002,441 T016,492 - T016,651
JAPAN		
-Unexamined	—	47,034,481 - 52,113,548
	23 APR - 27 APR 79	54,051,301 - 54,054,100
-Examined	10 MAY - 16 MAY 79	79,010,801 - 79,011,680
NETHERLANDS	21 MAY - 27 MAY 79	7,712,641 - 7,811,506
NORWAY	14 MAY 79	7,702,807 - 7,803,550
PORTUGAL	16 MAY 79	49,998 - 68,495
SOVIET UNION	—	179,847 - 618,870
SWEDEN	21 MAY 79	7,710,425 - 7,813,387
UNITED STATES		
-Reissues	22 MAY 79	Re30,001 - Re30,008
-Patents	22 MAY 79	4,155,122 - 4,156,291
PCT	31 MAY 79	7,900,278 - 7,900,306

*Printed patents actually published mid - late May, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
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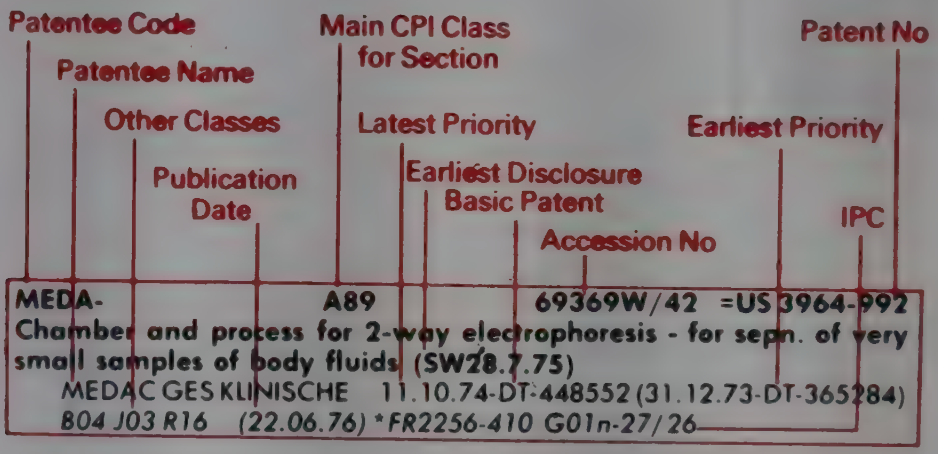
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
IPC
Patent No

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11: BAKING

D11 25939U/19 =DS 2250-119

figure moulding machine - for biscuitdough marzipan or the

AGSE BAKKERIJMACH (HAA -) 19.10.71-NL-014380
31.05.79) *DT2250-119 *A21c-11/02*

chine to produce shapes of dough or marzipan con- of a feed roll and a form roll, the former with cor- ons and the latter with the shapes in negative relief. er with the shapes is sliced off on leaving the roll y a knife blade which is supported at both ends by prings to form a parallelogram linkage. A drive eciprocates the knife blade at a frequency which is compared with the speed of the rolls.

his is a simple method of producing dough shapes a minimum of distortion. The whole device is easy to . 13. 10. 72 as 250119 (7pp39).

★ D11 42498B/23 ★DS 2823-865

e iron roller - with inward inclined running surface on ining rail surface

BENSTREIT GMBH 31.05.78-DT-823865
(31.05.79) A21b-05/02

for the baking of waffles in an endless chain of hing- affle irons has rails with an inward inclined conical d of 7-35 (10)° for the rollers of the irons. The rollers a conical running surface with the same inclination eir generating line to the horizontal.

rrangement ensures an automatic central alignment the chain of waffle irons. Thermally induced elongat- can be compensated for, and the whole system is sim- and suffers little wear. 31. 5. 78 as 823865 (7pp39).

K ★ D11 42533B/23 ★DT 2752-464

omatic baking plant for Arabian flat-cake bread - avoids turning ough portions and yields prod. resembling hand-made goods

VINKLER FA KG 24.11.77-DT-752464
(31.05.79) A21c-13/02

evice dispensing roughly spherical portions of dough, a -rising chest, ≥1 rolling machine for flat pieces of gh, and a final rising chest with dough boards and a ing oven, form an automatic prodn. line for Arabian cakes. The dough boards have a flat surface and a rounding rim, to the height or which they are filled h bran. These are hung so as to pivot as they move on less chains following a zigzag path through the rising est.

Used for the prodn. of Arabian flat cake bread from ugh which contains a large amt. of water and which uld be distorted from a round form if tipped from one t to another repeatedly during rising. The installation automatic, simple in design and needs very little main- ance, whilst the flat cakes produced are indistinguish- le from hand-made bread. 24. 11. 77 as 752464 (24pp1045)

B- ★ D11 42551B/23 ★DT 2752-621

iversal adjustment for mixer paddle arm - by U-bracket with dle and elongated holes

LIEBHERR-MISCHTECHN 25.11.77-DT-752621
J02 *(31.05.79) A21c-01/14 B01f-07/04*

e attachment of a paddle to the shaft of an annular tray ixer allows for its easy adjustment in two planes plus an gular adjustment. The round shaft is clamped between U-bracket and a cradle and can be turned and/or lowered raised. In addition, the U-bracket shell has elongated oles so that it can be readjusted (with the cradle) angula- ly.

This facilitates all adjustments during assembly or for ear. 25. 11. 77 as 752621 (6pp39)

TIPE- ★ D11 42644B/23 ★DT 2847-963

Convection type baking oven - with heat accumulator and water sprays for fast water vapour generation

TIPE REVENT AB 29.11.77-SW-013504
(31.05.79) A21b-01/26

A convection-type of oven for bakeries includes a heat accumulator in the circuit for the hot air. The heat accumulator consists of Vee shelves with metal balls which are arranged in a vertical plane and are made of a metal of high thermal conductivity. They are arranged at right angles to the air flow and are fitted with water sprays.

This is capable of evaporating very quickly large quantities of water. It requires no extra heat supply facilities like auxiliary heaters. 4. 11. 78 as 847963 (14pp39)

TANA ★ D11 43119B/23 ★J5 4052-741

Oxidising agent used in bread mfr. - comprises cysteine or its salt and L-ascorbic acid, part of which is coated with a low-melting solid

TANABE PHARMACEUTICAL KK 30.09.77-JA-118320
(25.04.79) A21d-02/16

The oxidising agent is prepd. by combining (a) 1 pt. wt. of L-ascorbic acid, (b) 0.4-1 pt. wt. of cysteine or its salt and (c) 0.4-1 pt. wt. of L-ascorbic acid coated with a coating agent which is solid at normal temp. and melts at ca. 40 °C.

As the coating agent animal or vegetable hardened oil such as tallow hardened oil, palm hardened oil, soy bean hardened oil, etc. and solid emulsifier of food use such as glycerin fatty acid ester, can be used. The oxidising agent is combined in flour so that L-ascorbic acid is 5-20 (5-10) ppm on flour.

L-Ascorbic acid is rapid and effective and its oxidising activity is not durable. When a part of L-ascorbic acid is previously coated with the coating agent, the oxidising activity of L-ascorbic acid can be exhibited throughout the bread mfg. process. The bread is as good as that prepd. with potassium bromate. 30. 9. 77 as 118320 (5pp5)

UVEN= ★ D11 43474B/23 ★SU -618-082

Dough mix preparation - involves using part of water for flour spraying and remainder for additives dissolution, and plasticising in vacuum

UKR VENDING EQUIP 01.12.75-SU-194254
(24.06.78) A21d-08/02

Improved dough and shorter period of its mixing are achieved by spraying flour and water contg. dissolved components conforming to the recipe. The dough mass is plasticised. The water used is separated into 2 parts 0.28-0.35 pts. wt. of water (on wt. of flour) and the flour is sprayed in the first stage. The components are added to the remaining water for spraying in the second stage. The plasticising process is carried out under vacuum.

The active centres of protein and starch interact with water to form hydrate shells. The components added to water include yeast, salt, fat, sugar and other items forming an emulsion which is adsorbed by the hydrated particles of flour.

Zolotov, E.B. Bul. 29/5.8.78. 1.12.75 as 194254 (2pp89)

LERE= ★ D11 43483B/23 ★SU -618-091

Prodn. of paste for cheese-cake mfr. - includes addn. of dried milk to fatty curds, sugar, butter cream and filler to improved storage life

LENGD REFRIG IND 10.08.76-SU-394996
(03.07.78) A23c-23 A23g-09

Dried milk is added to curd cheese based mixt. for cheese cake mfr. to improve its food value and storage life.

The product contains (wt. %): fatty curds 52.0-57.2, granulated sugar 20.2-20.6, butter cream 8.1-11.0, dried milk 6.0-8.0. remainder - filler. e.g. nuts. etc.

Patkul, G.M., Bocharova, S.G. Bul. 29/5.8.78. 10.8.76 as 394996 (2pp835)

KRAM/ ★ D11 43828B/23 ★US 4155-656
Dough kneader with paddle rotated by motor - carried in lid attached to bowl by yielding couplings
KRAMER H 12.09.77-US-832534 (19.07.76-US-706752)
(22.05.79) B01f-07/16 B01f-15

Dough is kneaded in a bowl by a paddle which is rotated about a vertical axis. A motor is mounted on a lid of the bowl to rotate the paddle which is supported only by the motor.

The lid is attached to the bowl by lugs which are received in slotted couplings projecting from thebowl. This coupling allows limited vertical movement of the lid while the kneader is operating. Resultant movement of the motor causes the axis of rotation of the paddle to alter during operation.

The appts. is a domestic dough kneader. The yielding attachment of the lid enables resistance of the dough due to lumps to be overcome. 12. 9. 77 as 832534 C.i.p. 4049243 (cf. 703857/39)(8pp295)

BAKP D11 04672A/03 =US 415
Rotary biscuit blank shaping machine - includes stripper blade, at constant angle, accommodating variations in blank thickne performing compound motion
BAKER PERKINS LTD 01.07.76-GB-027512
*+R13 R26 (22.05.79) *DT2728-758 +A21c-11/04*

A rotary moulding machine for biscuit dough includes dough hopper leading to co-operating rolls, one havin embossed surface for feeding dough downwardly and th other having moulding recesses. A scraper blade pre dough onto the recesses and removes excess from the mainder of theroll surface, the blade being carried by pivoted mounting.

The mounting is vertically and horizontally adjustab to maintain a constant operating angle with the roll, ad justment being actuated in response to the wt. of the m ded dough pieces. The machine leads to a more unifor product. 30.6.77 as 811928 (6pp1379)

D12: MEAT; FISH PROCESSING

UNIC D12 11325V/07 =DS 2338-418
Compressed accordion pleated food casing - with continuous, adherent barrier-forming layer on one face
UNION CARBIDE CORP 01.08.72-US-276919
*A97 +Q31 Q34 (31.05.79) *BE-803-079 A22c-13 B65d-65/38*

A tube-forming casing of regenerated cellulose. which may contain a fibrous layer is contacted with an unbroken, sealing layer, which adheres strongly to the surface of the casing. The sealing layer is impervious to moisture and gas and has a measured stretch capacity of less than 4%.

The sealing layer may be applied to the inside of the tubing and may be of a vinylidene chloride copolymer. The casing has a moisture content of $\geqslant 10\%$. The casing is placed on a rod and pressed. 28. 7. 73 as 338418 (4pp068).

DORN- ★ D12 42497B/23 ★DS 2818-147
Band saw for meat and bones - with retractable holding plate for large pieces
MASCHINENFAB DORNHA 26.04.78-DT-818147
(31.05.79) A22b-05

Band saw appliance for slicing of meat and bones includes a holding plate on a guide rod which is axially movable in a hinged bracket. By pushing back the plate against the bracket and swivelling it, the plate forms a flush extension of the worktable for extra large pieces of meat.

Appts. is suitable for even the largest pieces of meat which can be secured by hand until the plate can be swivelled back. 26.4.78 as 818147 (5pp39).

NMHB ★ D12 42501B/23 ★DS 2839-322
Fish gutting machine - with spring-loaded retainer for automatic adjustment to fish size
NORDISCH MASCH R BAADER 09.09.78-DT-839322
(31.05.79) A22c-25/14

Appts. for the topping and degutting of fish has two cutter blades, one oscillating, which perform a cut both sides of the spine directly behind the supraclavicula. A rail retains the fish rump, leaving a gap but offering enough resistance for the head extracting the gullet and innards from the rump.

Appts. permits the processing of fish of any size from sardines to herrings, mackerals and trout to be processed. The fish is securely retained during the gut extn. 9. 9. 78 as 839322 (4pp39).

KURE ★ D12 42594B/23 ★DT 2752-985
Removing malodorous basic components from gases - by contact with a support carrying an acid and or a salt
KUREHA KAGAKU KOGYO 28.11.77-DT-752985
E35 (31.05.79) B01d-53/14

The gas is contacted with a material which has been prepared by application onto a porous and heat-stable carrier $\geqslant 1$ cpd. which is a proton acid and/or $\geqslant 1$ Lewis acid and/or an acid salt, in amt. of 1-50%, calc. on the wt. the carrier.

The proton acid is phosphoric acid, boric acid, their mixt. or condensate, vanadic acid, chromic acid, an ar sulphonic acid esp. benzene sulphonic acid or terephtha acid. The Lewis acid is Ni sulphate, V sulphate, Mn p -phate or their mixt. The acid salt comprises the reac product of the above acids and a normal-shelling basic component such as NH_3, methylamine, ethylamine and/ pyridine.

Used for the treatment of effluent gases from e.g. fi factories; also for removing NH_3 from effluent gases wh have been treated with NH_3 to remove NO_x by reduction. 28. 11. 77 as 752985 (29pp004)

JACC/ ★ D12 42673B/23 ★DT 2850-
Meat tenderising tool - with spring loaded handle carrying sets narrow pointed stiletto blades
JACCARD A R 22.11.77-US-853840
P28 (31.05.79) A22c-09 A47j-43/28

A meat tenderising tool consists of a springloaded handl from which protrude several parallel sets of pointed narrow blades. They are guided in slots of a base plate which is placed on top of the meat to be tenderised.

This is a simple tool which is easy to handle and acce sible for cleaning. It is very effective in making tough pieces of meat easier to cut and easier to chew. 22. 11. as 850623 (13pp39)

EXTR- D12 55465A/31 =GB 1547-
Chopped fish compsns. - of improved storage stability when froz contain gelatin hydrolysate
EXTRACO AB 26.01.77-SW-000821
*(06.06.79) *DT2803-417 A23b-04/14*

Fish mince contg. gelatin hydrolysate is produced capable of improved stability during frozen storage. Amt. of gelatin hydrolysate is 3-6 wt. % w. r. t. fish mince, an is derived from gelatin or collagen which has been degraded to such an extent that it has lost its gel forming properties.

Pref. fish mince is whole fish mince, where the fish is cod and/or haddock. Pref. gelatin hydrolysate is incorporated into the mince in preparing the prod.

Used esp. in producing fish balls or fish sausages. Prod. can be stored in a frozen state for longer periods of time without protein changes. 24. 1. 76 as 002890 (3pp 931)

★ D12 B/23 ★HU T016-513
uous salami prodn. process - including simultaneous,
lled cooling/freezing and drying of the meat and
ioning the finished product
DAPESTI HUSIPARI 18.02.77-HU-BU0840
(28.05.79) A22c-11 A23b-04

★ D12 43374B/23 ★J7 9011-376
d cuttlefish mfr. - by cutting cuttelfish body into small pieces,
g with stomach and intestine of bonito, adding salt seasoning.
nd maturing
JIMAN KK 09.06.75-JA-070288
(15.05.79) A23b-04/02
hod comprises cutting cuttlefish body into small pieces,
ing 100 pts. wt. of the pieces with 20 pts. wt. of sto-
ch and intestine of bonito, adding to the mixt. 15 wt.%
, 2 wt.% Na glutamate, 2 wt.% sorbit, 0.1 wt.% sod-
succinate, 0.2 wt.% polyphosphate, 3 wt.% salted
tlefish lever and 3 wt.% salted bonito lever, and mat-
ng the mixt. 9.6.75 as 070288 A23b-4/02 (15.5.79)
JIMAN KK (2pp83)(J51144756)

A/ D12 60734X/32 =J7 9011-377
meat paste prods processing - includes microwave heating
sing foam tissue formation and giving required sterilisation
TAKAMURA D 19.12.74-JA-146224
*(15.05.79) *J51073-163 A23b-04/04 A23l-01/32*
h meat is homogenised, by using a mincer or roller,
d kneaded with starch, sodium chloride and a seasoning.
e mixt. is moulded through an extruder, boiled at 85-
°C for 10-25 min. to cause coagulation of proteins, then
ain solidified, frozen at -20 to -50°C to increase net-
e tissue, cut, predried at 50-95°C, and finally rapidly
ated by microwave to dry (to water content of 5-10%).
The microwave heating causes formation of foam tissue
d sterilisation to residual bacteria number of < 1000/g.
e processing does not lower the taste and texture of the
od. Time required for prod. can be shortened. 19.12.
.12.74 as 146224 A23b-4/04, A231-1/325- (15.5.79)
AKAMURA D (2pp)(J51073163)

DI= ★ D12 43447B/23 ★SU -599-780
g carcass dresser - has a spring-loaded plate for intestine holding
nd featuring a common pivot with the disc
MINSK MEAT DAIRY IN 12.04.76-SU-345290
(13.04.78) A22b-05/20
nimal, e.g. pig, abdominal cavity opener does not dam-
ge the intestines. It features guard in the form of a cur-
ed and spring-loaded ellipse held in the casing. Both the
atter and the ellipse are set on a common axis with the
isc with freedom of independent relative tilting. The cas-
ng carries the cutter for inserting the ellipse into the ab-
ominal cavity of the pig carcass.
Pankov, V.P., Bulikov, S.I. Bul. 12/30.3.78. 12.4.76
s 345290 (6pp89)

CIBA D12 20955W/13 =SU -618-020
Disinfection and sterilisation of seafood - using iodine complexed
with polyvinyl pyrrolidone
CIBA GEIGY AG 14.09.73-CH-013271
*A97 +P14 P34 (A14) (06.07.78) *BE-819-921 A23b-04/14*
Compsns. contg. iodine complexed with polyvinylpyrroli-
done (PVP) are used to disinfect and sterilise crustaceans,
fish and esp. edible shellfish. The compsns. pref. also
contain a cpd. liberating iodide ions, esp. HI, KI or NaI,
the wt. ratio of PVP:I_2 being 3-10:1 and that of iodide:I_2 a
being 2:1. The compsn. pref. has a (water/heptane) part-
ition coefficient (P), in aq. soln. corresponding to 1%
available iodine, of > 200 (where P is defined as $P = \frac{[Ia]}{[In]}$
where [Ia] is the conc. of iodine in mg/ml. aq. phase and
[In] is the concn. of iodine in mg/ml. of heptane phase).
Treatment is rapid and does not have the disadvantages
of taste and odour associated with Cl_2 treatment, antibiot-
ics are not used so the risk of increasing the number of re
-sistant microorganisms is reduced; treatment is appli-
cable to the living animals if necessary.
Leoni, L., Kazagrandi, F. Bul. 28/30.7.78. 13.9.74 as
(4pp)

AZOV= ★ D12 43475B/23 ★SU -618-083
Fish scales and water separator - has perforated cylindrical section with curved deflector bounding discharge slot
AZOV BLACK SEA FISH 17.04.76-SU-348752
P41 (26.06.78) A22c-25/02 B04c-05/10

Lower losses of fish scale and improved sepn. of impurities are ensured by perforations of cylinder which holds a deflector. The latter is curved to form a slot type clearance guiding the scales into the conical section. The vessel is enclosed in a casing with a tube for draining the liq.

The degree of dewatering of the mixture is adjusted by altering the slot size, the catch passing the fish separator, leave scales and water in the strainer. The main part of water from the latter is discharged overboard, while the dense residue of scale suspension is pumped into the vessel for separation.
Krasnoperov, S.V. Bul. 29/5.8.78. 17.4.76 as 348752
(4pp89)

UMEA= ★ D12 43476B/23 ★SU -618-084
Meat treatment liquid smoking compsn. supply appts. - includes supply tank level sensors delivering exact amount for spraying with compressed air
UKR MEAT DAIRY RES 12.07.76-SU-383616
(26.06.78) A23b-04/04

Apparatus for supplying liquid smoke prepn. to a heat treatment chamber for meat products, e.g. sausages, comprises a supply tank with a syphon tube, a spray head and a compressed air feed. To improve surface treatment quality, the tank is connected with the air feed system, and a level sensor within the tank regulates the supply of smoke and air. The spray head is pref. mounted directly on the shell of the tank.
Galushenko, V.A., Zhirnyi, P.A. Bul. 29/5.8.78.
12.7.76 as 383616 (4pp1358)

KIFO= ★ D12 43511B/23 ★SU -618-138
Centrifugal separator of fat from meat refuse - contains additional swinging container for receiving residual fat from drum before discharge of defatted product
KIEV FOOD IND TECHN 25.10.76-SU-415082
P41 (27.06.78) B04b-03

Centrifugal separator for defatting meat refuse, designed for production of fodder meal, and claimed in Parent certificate 178434, is improved by the provision of additional swinging container which collects residual fat remaining in the drum of the centrifuge, before the defatted product is discharged, thus preventing its mixing with residual fat, whose usual amount (about 10%) remaining in the drum reduces the quality of the fodder meal produced from meat refuse if mixed with it.

The additional container is mounted on the shaft in brackets at the side of the centrifuge and is swung manually by a handle, while the gate plate closing the outlet of the container is automatically opened and closed by tie rod activated by a face cam.
Tulchevskii, M.G. Bul. 29/5.8.78. 25.10.76 as 415082
Add to 178434 (4pp135)

MEYN/ D12 34990A/20 =US 4155-146
Extractor for cloaca of poultry - has accurately aligned, knife-centering pin preventing damage to carcass or entrails
MEYN P 24.01.77-NL-000677 (12.01.77-NL-000233)
*(22.05.79) *BE-862-059 A22c-21*

A vent-cutting machine for poultry includes a cutter in the form of a centre pin for insertion into the vent opening and a hollow cylindrical knife rotatable about the pin. The knife is arranged, e.g. by connection to a hollow shaft co-axial with the pin, such that on rotation of the cutter, it moves from a position in which the pin protrudes from the knife to one where the pin lies wholly within the knife.

The machine removes the vent without damage to the viscera, whilst making only a small hole. 23.12.77 as
863955 (12pp1379)

YASK ★ D12 ✓ 43782B/23 ★US 4155-281
Fish head and gut removal - by clamping on conveyor and passing circular saw and gut removing claw
YASHIMA KOGYO KK 10.08.76-JA-U06050 (05.08.76-JA-092824)
(22.05.79) A22c-25/14

A fish processing system includes a conveyor with regular

-ly spaced clamps which receive fish and carry them transversely through an appts. Above the upper run of the conveyor is a head removal station where a rotary saw partially cuts through the body and the head is then pushed off by an arm.

At a gut removal station on the lower run of the conveyor a rod is inserted into the body cavity. At the distal end of the rod is an articulated claw which is moved along the cavity wall to remove the guts.

The appts. removes the head and guts of fish, wall eye pollack used in mfg. boiled fish paste. 4.8.77 as 821979 (+5.8.76(3)-JA-092825;UO3980-1)(12pp295)

DEGO/ ★ D12 43926B/23 ★US 4155-886
Animal tattooing paste for pig carcasses - contains emulsifiers, oleic acid, hydrocarbon solvent, thickener, polybutene and dye
DEGOLER W H 06.02.78-US-875736
A97 G02 (22.05.79) C08l-01/08

Animal carcass tattooing paste comprises (wt.%) 0.05-10% sorbitan mono fatty acid ester (I); 0.05-10% water-soluble polyoxyethylene derivs. of fatty acid partial ester of sorbitol anhydrides (II); 0.05-10% oleic acid; 0.05-10% aromatic hydrocarbon solvent; 0.5-15% thickener (III); 5-45% polybutene of mol. wt. 2500 (IV); 0.05-10% compatibl
ganic dye and 50-85% water.

(I) is esp. the stearate (Ia); (III) is carboxymethyl
ulose (IIIa) and the dye is black aluminium lake (IV).
proved permanency is achieved when used to mark pi
carcasses. 6.2.78 as 875736 (4pp1251)

CHEL- ★ D12 43984B/23 ★US 415
Smoked sausage type product - in which meat is smoked a
temp. prior to grinding
CHELSEA INDS INC 03.11.77-US-848236
(22.05.79) A22c-11 A23l-01/31

Beef, pork or poultry meat is cured, then smoked at
130°F, ensuring that the internal temp. of the meat do
not exceed 90°F, to avoid protein denaturation. The r
is then coarsely ground and bound with an aq. emulsio
contg. the meat finely ground.

The meat retains its binding power and can be made
into sausages etc. which can be sliced without crumbli
and have assmoke flavour uniformly distributed. The
product has a longer shelf life. 3.11.77 as 848236 (5p

See Also

D13 BE 873878 D13 SU 618096

D13: OTHER FOODSTUFFS

GENO ★ D13 42430B/23 ★BE-873-878
Proteinaceous fibres having meat-like consistency - formed by extrusion of a proteinaceous, micellar mass into a neutral coagulation medium above 90 degrees
GENERAL FOODS CORP 03.02.78-CA-296430
C03 (D12) (29.05.79) A23j A23p

Prodn. of proteinaceous fibres comprises injection of a proteinaceous, micellar mass, through a series of openings into an essentially neutral coagulation fluid medium at≥90°C and form proteinaceous fibres by coagulation.

Proteinaceous fibres are rubbery and elastic when they are hydrated; they may be dehydrated without loss of their structural integrity and may be easily rehydrated to give the rubbery and elastic form; they often carry fibrils; they are able to withstand elevated temps and pressure characteristic of sterilisationoperations; they retain their structural integrity on cooking and may be preserved in a frozen form for long periods without loss of their properties when they are unfrozen.

The fibres are used to replace natural protein in human and domestic animal foods. The fibres have the characteristics of meat fibres and may be used as meat substitutes in products homologous to meat, bacon, sausages, marine animal flesh (prawns, shrimp etc.), chicken in sauce etc. The product may be used to replace all natural protein fibre or as an extender to the natural protein. 1.2.79 as 873878 (13pp395)

RALS ★ D13 42457B/23 ★CA 1054-434
Preservation of wrapped foods - by incorporation of di:hydroxyacetone as antibacterial agent, and an antimycotic agent
RALSTON PURINA CO 25.10.76-CA-264117
E17 (15.05.79) A23l-03/34

Food is preserved by treating it with dihydroxy-acetone (I) to inhibit bacterial growth and an antimycotic agent (II) to inhibit mould growth. A range of foods may be packed by simple, inexpensive methods without expensive canning and sterilising techniques, and the materials may then be stored at room temp. for long periods of time.

Suitable foods include meat, egg, fish, and soy protein, and typically have H_2O-content ca 50%. Amt. of (I) added is 0.5-15% pref. 3-5% by wt. (II) are suitably organic carboxylic acids (or 1-5C alkyl esters, or edible salts, pref. alkali(ne earth) metal salts) and amt. used is 0.015-0.3% by wt., pref. 0.1-0.3% by wt. for sorbic and propionic acids and/or Na and K salts. 25.10.76 as 264117 (17pp)

GENO ★ D13 42458B/23 ★CA 1054-
Decaffeination process - comprises treating green coffee
increased water content with organic solvent or aq. extract of gr
coffee solubles
GENERAL FOODS CORP 06.12.74-US-530329
(15.05.79) A23f-01/10

Process for removing caffeine (I) from (I)-contg. green
coffee is treated with water to 35-55% by wt; (b) wet gr
coffee is stirred and extd. at 160-200°F with an extn.
medium (II) (wt. ratio (II): green coffee = 1.5-3.0:1); (c
mixt. is stirred until equilibrium is reached between ra
es of (I) transfer from coffee to (II) and from (II) to coff
(d) (II) is sepd. from the coffee and steps (b)-(d) are repeated until the (I) levels are reduced to the required an

(II) is suitably an organic solvent (e.g CH_2Cl_2 or tri
chloroethylene) or an H_2O-extract of green coffee solubl
and is free of (I).

Economic method improves the quality of (I)-free cof
ees by maximising (I) removal and decreasing total contacting time and by not using undesirably high extn. tem
26.9.75 as 236528 (12pp478)

GENO D13 08721T/06 =DS 2136-
Concentrating coffee extracts - before freeze-drying by par
freezing and removing ice crystals
GENERAL FOODS CORP 23.07.70-US-057836
*(31.05.79) *DT2136-479 A23f-01/08*

A coffee extract of solid content 15-30 wt.% is freeze co
centrated to a solid content of 30-60 wt.%. The initial ex
tract is cooled to form a mass of ice crystals in concentrated extract.

The ice is sepd. in a filter press which is cooled to p
vent the ice crystals melting during filtration. 21.7.71 a
136479 (4pp068).

HAYB D13 39769U/28 =DS 2301-
Low calorie food - contains pullulan as partial replacement
starch
HAYASHIBARA BIOCHEM 13.01.72-JA-005580
*(31.05.79) *BE-793-671 A21d-13/06 A23l-01/34*

Nutrient with low calorific value comprises microbial polysaccharide, partic. edible pullulan (pref. with degre
of polymerisation 100-4000) and the usual water-soluble components which produce a mild flavour and odour.

Pullulan may partially replace starch in nutrients, u

h. 12.1.73 as 301492 (4pp047).

A- D13 14877V/08 =DS 2337-765
calorie sweetener compsn - based on ammonium
lrrhicinate and a 5' nucleotide to suppress the unpleasant taste
ACANDREWS & FORBES 03.08.72-US-277657
*05 E15 (B02 B03 D21 E11) (31.05.79) *NL7310-789 A23l-01/23*

etening agent with low calorie content comprises am-
ium glycyrrhicin and an edible 5'-nucleotide or its
toxic salts (0.005-3, esp. 1 wt.%, based on the NH_4
). The latter component obscures the liquorice flavour
he former. 25.7.73 as 337765(4pp047).

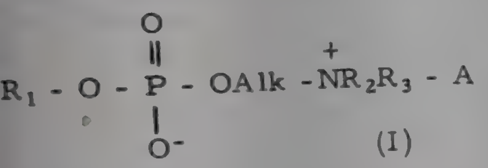
K- D13 84150A/47 =DS 2732-129
on. of cheese from conc. milk in single vessel - contg.
meable wall and positioning vessel according to process stage
MOLKEREI A MULLER 15.07.77-DT-732129
*P13 (31.05.79) *BE-869-047 A23c-19/02*

ystem for the mfr. of layer cheese uses a plastic beak-
in the shape of a truncated cone (inverted) with two
entric ribs down the sides which prevent an inserted
rtition from tilting. This perforated partition acts as a
ve. Milk which has had its water content lowered by 30-
% is filled in, together with ferment and lactic acid bac-
ria. The beaker is closed by an aluminium lid and turn-
through 90° so that the whey can collect in the small
le compartment.

When the cheese package arrives at the consumer, the
ey can be used as a dietary beverage. The system saves
tensive labour needed in the conventional method of mfr.
.7.77 as 732129 (5pp39).

AC ★ D13 42546B/23 ★DT 2752-553
mmonio-alkyl phospholipid analogues - useful for modifying cell
ll properties e.g. for plant hybrid prodn.
MAX PLANCK GES WISSENSCH 24.11.77-DT-752553
B05 C01 E11 (D25) (31.05.79) C07f-09/09 C12k-09

hospholipid analogues of formula (I) are new.



$$R_1-O-\overset{\overset{\displaystyle O}{\|}}{\underset{\underset{\displaystyle O^-}{|}}{P}}-OAlk-\overset{+}{N}R_2R_3-A$$

(I)

In (I), Alk is 2-12C linear, branched or cyclic alkyl; A is NH_2 or $\{CH_2-(CH_2)_xNR_4R_5\}_yR_6$. R_1 is the residue of a mono- or polyvalent ali-
hatic primary or sec. alcohol in which any additional OH
re esterified or etherified, the ester and ether gps. being
f 1-26C opt. with ⩾1 C multiple bond. R_1 has altogether
⩾6C; R_2, R_4 and R_6 are each H or 1-4C alkyl; R_3 and R_5
re each H, 1-4C alkyl or free electron pair; and x and y
re each 1-5. (I) are made from R_1OH by sequential re-
action with $POCl_3$, HO Alk. Hal and NR_2R_3-A.

(I) modify the properties of cell membranes so are use-
ful for inducing fusion of cells to form plant hybrids; as
transport vesicles for pharmaceuticals and for modifying
cell-wall receptor sites which are responsive to hormones.
They also have immuno stimulating activity and, since they
are good, biodegradeable emulsifier can be incorporated
in foods, detergents, etc. 24.11.77 as 752553 (19pp1251)

HENK ★ D13 42612B/23 ★DT 2753-309
Animal feedstuffs contg. antibiotic and proteolytic enzyme -
increase feed utilisation and rate of weight gain
HENKEL KG AUF AKTIEN 30.11.77-DT-753309
B05 C03 (D16) (31.05.79) A23k-01/17

An animal feedstuff based on carbohydrates, proteins, fats
and opt. other additives, comprises more than 20-150
ppm of one of the antibiotics Virginiamycin, Zinc-Bacit-
racin, or Flavophospholipol and an amt. of proteolytic
enzyme such that an enzymatic activity of 0.05-2.5 mTU/g
results.

The animal puts on considerably more weight when
standard feedstuffs are mixed with one of these antibiotics
and a proteolytic enzyme. The feedstuff is esp. suitable
as a starter for piglets and for piglets as they mature.
The feedstuff is also suitable where the use of the partic-
ular antibiotics is already known to be of advantage, e.g.
in feed for laying hens for fattening up pigs and raising
calves. Feed utilisation can increase by ⩽4%. 30.11.77
(11pp1401)

TEBB/ ★ D13 42620B/23 ★DT 2753-416
Portions of feedstuff for fish - coated with a protective layer soluble
in the fish or digestible in the fish
TEBBENHOFF E 30.11.77-DT-753416
C03 (31.05.79) A23k-01/18

A portioned feedstuff for fish comprises individual portion
which have been coated with a protective layer which is
soluble in the fish or which can be digested by the fish.

The protective coating ensures that the portions remain
intact in the water and therefore do not cause cloudiness
in the tank or sink to the bottom, where the fish cannot eat
them. The treatment can be applied to many different
types of feedstuff for a great variety of fish. 30.11.77 as
753416 (10pp1401)

LOTT ★ D13 42693B/23 ★DT 2850-989
Chewing gum compsn. contg. liq. centre - prepd. by adding
emulsifier and pref. solvent to aromatised liq. filling
LOTTE KK 22.11.77-JA-140418
(31.05.79) A23g-03/30

In prepn. of chewing gum having a gum base and a central
liq. filling mixed or aromatised with flavouring agents,
the filling is mixed with 0.01-0.5 wt.%, w.r.t. filling,
of emulsifier. The emulsifier-treated filling is then
introduced into gum base.

In addn. to emulsifier activity, the emulsifier also pre-
vents the penetration of liq. filling into the surrounding
gum compsn. and maintains a distinct difference between
gum compsn. and filling. Taste in filling is retained over
a long period, e.g. 30 days at 18°C. 23.11.78 as 850989
(17pp200)

MACA- ★ D13 42699B/23 ★DT 2851-05
Sweetener for food and drinks - contains lactose and smal
quantities of ammonium glycyrrhizic acid, saccharin and
nucleotide
MACANDREWS & FORBES 25.11.77-US-854605
B05 E19 (31.05.79) A23l-01/23

Sweetener for food and drinks, etc., e.g. toothpaste,
consists, by wt., of 80-95 (85-95)% lactose, 0.5-12.5 (0.
-10)% ammoniated glycyrrhizic acid, 2-8 (5)% saccharin
and 0.025-0.075 (0.05)% of a 5'-nucleotide.

The sweetener compsn. is low in calories, has no bitte
after-taste and has twice the sweetening power of sacchar
alone. The compsn. combines the solubility of lactose wi
the sweetening power of ammoniated glycyrrhizic acid an
saccharin without the licorice taste of the glycerrhizic ac
deriv. and the bitter after-taste of saccharin.

The ammoniated glycerrhizic acid may be the mono-,
di- and/or tri-ammoniated deriv. The 5'-nucleotide may
be a mixt. of double N-contg. salts of 5'-inosinic- and 5'
guanylic acid. 25.11.78 as 851055 (10pp200)

MACA- ★ D13 42700B/23 ★DT 2851-08
Low calorie food sweetener compsn. - contains lactose and/
sorbitol, cream of tartar, ammonium glycyrrhizin and a nucleotide
MACANDREWS & FORBES 25.11.77-US-854604
B05 E19 (31.05.79) A23l-01/23 A23l-02/26

Sweetener for food and drinks consists, by wt., of 85-95
(89.5)% lactose and/or sorbitol, 2.5-7.5 (5)% K di-tart-
rate (cream of tartar), 2.5-7.5 (5)% ammonium glycyrr-
hizin and 0.025-0.075 (0.05)% of a 5'-nucelotide.

The compsn. is low in calories, neutral in taste, caus
no side-effects and combines the water-solubility of lacto
or sorbitol and the sweetening properties of ammonium
glycyrrhizin without its licorice taste. The compsn. re-
places sugar in cakes and confectionery. 25.11.78 as
851082 (10pp200)

ANVR ★ D13 42732B/23 ★FR 2401-6
Freeze concn. of aq. solns. and suspensions e.g. fruit juice - for fa
processing of prod. becoming highly viscous at low temp.
AGENCE NAT VALORISATION 30.08.77-FR-026374
J01 (D16) (04.04.79) A23l-02/12 B01d-09/04

The soln. is frozen and spread into a layer of 0.1-3 mm
thickness. This layer is broken up into flakes which are
then processed through a number of repetitive cycles of
prod. compression followed by decompression. In each
cycle the pressures exerted on the prod. during the com-
pression and decompression stages are equal to or great
pressures of the preceding cycle.

As a result, the process delivers an enriched aq. soln. or concentrate and pure, compressed ice.

The repetitive, processing cycles are pref. carried out in a multi-stage screw press. Each stage of the screw press rotor has a length of helical scroll followed by a length of plain shaft where decompression follows compression by the scroll. The characteristics of each length of helical scroll are selected to provide the desired compression.

Used in prodn. of concentrates of fruit juice, beer, wines, blood plasma, whey, enzyme extracts, herb extracts etc.

Process allows the quality-retaining characteristics of freeze concn. to be applied to prods. where high viscosity at low temp. had impeded crystal growth. The installation is simple, robust and inexpensive. The time taken to produce the concentrate is greatly reduce compared with earlier processes e.g. down to about 10%. 30.8.77 as 026374 (18pp448)

DEGS D13 96279X/52 =GB 1546-961

Calcium salts of (bis) hydroxymethyl lysine - useful as feed additives for ruminants

DEUTSCHE GOLD & SILBER 14.06.75-DT-526750

*C01 (06.06.79) *BE-842-900 C07c-101/30*

The Ca salts of an N-monohydroxy methyl lysine and/or an N-bis-hydroxy methyl lysine are produced by reacting lysine with formaldehyde in the presence of water and Ca ions at a pH of $\geqslant$ 8.

The salts are useful as feed supplements to promote the utilisation of feeds for ruminants. The cpds. are free from odour and taste and are therefore readily taken by the animals. 13.5.76 as 019664 (4pp 910)

MONS D13 45838A/26 =GB 1546-979

Alpha-L-aspartyl-L-phenylalanine methyl ester prepn. - by esterifying the free acid in aq. hydrohalic acid, for use as sweetening agent

MONSANTO CO 27.12.76-US-754297

*B05 E14 (06.06.79) *BE-862-258 C07c-103/52*

Prepn. of α-L-aspartyl-L-phenylalanine methyl ester comprises first contacting α-L-aspartyl-L-phenylalanine (I) with a reaction medium comprising 0.1-0.8 mole HCl and/or HBr per 100g medium, 0.1-1.1 moles methanol per 100g medium, and water. Proviso is that 1.0-20.0 moles hydrogen halide per mole (I) and $\geqslant$1.0 mole of methanol per mole (I) are present in the reaction medium.

The hydrogen halide salt of (I), which is insoluble in the reaction medium, is sepd. and converted to the desired prod., which is useful as a sweetening agent. 23.12.77 as 053633 (5pp936)

NEST D13 04189Y/03 =GB 1547-197

Milk reconstituted from aq. phospho alkaline earth casein - with control of alkaline earth concn., pH and sugar content

SOC PROD NESTLE SA 07.07.75-CH-008829

*(06.06.79) *DT2541-623 A23c-11*

A reconstituted milk-like prod. of the sweetened condensed milk type is prepd. where simultaneously or successively the alkaline earth metal content of a phospho-alkaline-earth metal casein soln. is an aq. medium is adjusted to 6.25-32.5 milli-ions-gm. of alkaline earth metal per 100 gm. casein.

The pH of this soln. is adjusted from 6.4-6.8, forming a suspension. The sugar content of the suspension formed is adjusted such that in the equation $S/(S+E) > 0.6$, where S and E are each the amts. by wt. of sugar and water in the prod.

The suspension is concentrated to form a homogeneous mixt. Esp. used in geographical locations where fresh milk availability is not guaranteed. 1.6.76 as 022754 (6pp931)

STAU D13 92298X/49 =GB 1547-213

Food grade phosphoric acid prodn. - by purification of wet process phosphoric acid

STAUFFER CHEMICAL CO 14.08.75-US-604519

*C04 E36 (06.06.79) *US3993-736 C01b-25/22*

Purification of wet process H_3PO_4 comprises (A) extracting the H_3PO_4 with organic solvent to form a solvent/acid phase (I) and a raffinate phase (II) and sepg. (I) from (II); (b) treating (I) with alkaline material to ppte. impurit and sepg. (I); (c) diluting (I) with water and sepg. the acid phase (III); (d) adjusting the pH of the aq. acid ph to 5-9 to form a phosphate soln. and sepg. the latter; (e) treating the phosphate soln. with activated C.

Pref. the organic solvent is a 5-8C alcohol. The p fied prod. is of food grade quality. 6.8.76 as 032818 393)

NEST D13 06000Y/04 =GB 154

Cheese powder prepn. from skim soln. - by inocul fermentation heating coagulate separation fat addn. and d (NL110176)

SOC PROD NESTLE SA 09.07.75-CH-008938

*(06.06.79) *DT2541-102 A23c-19/02*

Cheese powder is prepd. by inoculating a colloidal soln (partly) having the compsn. of skimmed milk, with a lactic ferment; allowing the soln. to ferment under aer bic conditions until its pH is 4.8-5.2; heating the soln. give curds and serum; sepg. curds from serum; adding to the curds, 5-50 wt.% (based on dry matter) of fats w adjusting the pH to 5.1-5.7; and drying.

After reconstitution, the cheese has the properties c mozarella or of a cheese for soufflés. Process is chea and simple. 17.5.76 as 020254 (3pp976)

NEST D13 94194X/50 =GB 1547-

Coffee solubles extracted from roast ground coffee - which initially contacted with aq. coffee brew before addn. to extraction zone

SOC PROD NESTLE SA 06.08.75-US-602194

*+P28 (06.06.79) *US3995-067 A23f-01/08*

A coffee extract is produced by countercurrently passin an aq. medium through an extraction zone which compri ses $\geqslant$ 3 serially-connected cells contg. roast, ground coffee to produce coffee extract.

Cells of the zone are changed for successive extracti cycles, during which a draw-off of the extract occurs, removing the end cell contg. the most exhausted coffee and adding a cell contg. fresh coffee at the opposite end The cell contg. fresh coffee is filled with aq. coffee bre prior to addition to the zone.

A beverage material is produced having enhanced flavour and aroma. The number of holding and/or cooling steps are reduced, as is the period of time between the exit of extract from the extraction zone and the remova of volatiles by stripping. 29.7.76 as 029906 (7pp931)

BUDA ★ D13 B/23 ★HU T016-5

Detoxifying corn contaminated with Fusarium - by treatment wi aq. surfactant or base

BUDAPESTI MUSZAKI EGYETE 01.03.77-HU-BU0841

(28.05.79) A23l-01/20

MAGY ★ D13 B/23 ★HU T016-5

Fruit juice, essence or aroma concentration - by brief, caref heating and condensation

MTA MUSZAKI KEMIA 11.03.77-HU-MA2862

(28.05.79) A23l-01/23

MOSO- ★ D13 B/23 ★HU T016-53

Flour classifier - partic. for meal from papillaceous plants or grasse

MOSONMAGYAR MEZOGAZ 22.07.75-HU-MO0938

, P43 (28.05.79) B07b-01/20

INAS- ★ D13 42909B/23 ★J5 4051-9

Agar lyogel compsn. contg. glycerine in water - can be used dental mould, food model and perfume carrier as well as in foo and fermentation industry

INA SHOKUHIN KOGYO 03.10.77-JA-117924

(D21 D23) (24.04.79) B01j-01/24 C09k-03

A compsn. for lyogel of agar (I), contains glycerin (II) in water as solvent. Pref. carragienan, locust bean gum ar alginic acid are included in (I); the gel-strength increases according to increase of (II) content.

(I) has been used in food and fermentation industry but could not be used in other industries because the gel-strength of the present compsn. is high and the velocity o synaresis can be controlled. Therefore the compsn. can be used as a mould for dental treatment, food model and perfume-locking agent. When perfume is locked in the compsn., volatilisation of the perfume proper rate. 3.10.77 as 117924 (4pp42)

★ D13 43118B/23 ★J5 4052-740

nting fading of paprika pigment - by cinrporation of morin

AN EI CHEM IND KK 04.10.77-JA-119648

4 (25.04.79) A23d-05 A23g-03 A23l-01/27 A23l-02/26 C09b-61

cess comprises combining morin in amt. < 500 ppm in paprika pigment. Prod. is used as red pigment in s, pharmaceuticals, etc. Morin is more effective either rutin or quercetine. 4.10.77 as 119648 (3pp5)

- ★ D13 43120B/23 ★J5 4052-743

ean protein food material prepn. - by adding essential oil g. isothiocyanic acid to defatted soybean protein

IN-JIRUSHI WASABI 04.10.77-JA-119281

(25.04.79) A23l-01/20

method comprises combining (a) an essential oil tg. isothiocyanic acid ester as the major ingredient or a substance contg. the essential oil (a), in soy bean tein prepd. from defatted soy bean through conventional thod so that 0.7-50 mg of the essential oil is contained 100 g of soy bean protein.

Specific soy bean odour can be completely prevented d the soy bean protein can be used as a food material for sty foods such as boiled fish paste, etc. 4.10.77 as 9281 (5pp5)

RS ★ D13 43121B/23 ★J5 4052-748

rous high protein food prodn. - from milk protein and opt. fat d/or carbohydrate includes using an acid bath and salt bath for ation

KURARAY KK (HNKN) 29.09.77-JA-118360

(25.04.79) A23j-01/20 A23l-01/31

brous high protein food having excellent heat-softening sistance and preservative property is produced by (1) rming (a) a mixed protein soln. contg. milk protein or) a mixt. obtd. by combining fat and/or carbohydrate th the protein soln., in fibre form, (2) pre-fixing it in acid bath and (3) fixing it in a salt bath contg. ⩾ 1 of tassium salt, sodium salt and calcium salt in amt. 0.3- g equivalents/l as the total cation concn. at pH 2.5-6.5 xcepting pH 3.4-5.6) at 90-130°C for 20-180 mins.

The fibrous protein obtd. has excellent texture, elast- ity, chewing resistance and hot water resistance.

Pref. the acid bath is a soln. contg. 0.5-25 w/w% of ⩾ of sulphuric acid, phosphoric acid, acetic acid, citric cid, fumaric acid, succinic acid, glutamic acid, their cidic cpds. or their salts and pre-fixation is at pH 0-5 or 10-300 secs. The starting material is milk, skimmed nilk, their concentrates, their mixts. with non-fibrous nimal and vegetable protein, casein and protein mixt. contg. casein. 29.9.77 as 118360 (8pp5)

IBU- ★ D13 43122B/23 ★J5 4052-754

ean milk drink prepn. - by fermenting bean milk with lactic acid acteria and adding organic acid and/or fruit juice and pectin tabiliser

KIBUN KK 30.09.77-JA-116850

(D16) (25.04.79) A23c-09/12 A23c-11 A23l-01/20 A23l-02/38

The method comprises fermenting bean milk with lactic acid bacteria, adding organic acid and/or fruit juice and adding pectin or pectin and carrageenan as the stabiliser.

Bean milk drink obtd. is delicious and stable. Lactic acid bacteria is Lactobacillus bulgaricus, L. acidophilus, Streptomyces lactis, S. thermophilus, etc. and the fermentation is practiced at 35-42°C for 12-20 hrs. to acidity 1.2-2.0. Stabiliser is added 0.1-0.5%. When pectin and carrageenan are used together, 2-3 pt. wt. of pectin is used with 1-2 pts. wt. of carrageenan. 30.9.77 as 116850 (2pp5)

KIBU- ★ D13 43123B/23 ★J5 4052-755

Bean milk drink prepn. - by fermenting bean milk with lactic acid bacteria then adding pectin and opt. carrageenan

KIBUN KK 30.09.77-JA-116851

(D16) (25.04,79) A23c-09/12 A23c-11 A23l-01/20 A23l-02/38

The method comprises combining pectin and if necessary, carrageenan in the bean milk previously fermented with lactic acid bacteria. Delicious stable fermented bean milk can be prepd.

illus vulgaricus, L. acidophilus, Streptococcus lactis, S. thermophilus, etc. Bean milk is fermented with the lactic acid bacteria at 35-42°C for 12-20 hrs. to acidity 1.2-2.0. The stabiliser is combined 0.1-0.5%. When pectin and carrageenan are used together, 2-3 pts. wt. of pectin and 1-2 pts. wt. of carrageenan are used together. 30.9.77 as 116851 (2pp5)

SANE ★ D13 43124B/23 ★J5 4052-756

Preventing the pptn. of protein in acidic protein foods - using an agent contg. acidic substance, anionic aq., colloid and opt. poly:phosphate

SAN EI CHEM IND KK 28.09.77-JA-117142

A97 (25.04.79) A23c-09/12 A23g-09 A23l-01/18

The preventive agent is composed mainly of dried or undried homogeneous mixt. of acidic substance, anionic aq. colloid and if necessary polyphosphate. The pptn. of protein by acidic protein foods prepd. from milk protein or vegetable protein such as acidic milk, yoghurt, fruit milk drink, acidic pudding, etc. can be completely prevented.

As acidic substance organic acid, inorganic acid, fermented milk, fruit juice, etc. can be used at < 15 times in wt. as acid on the protein. As anionic aq. colloid CMC, pectin, arginic acid-propyleneglycolester, etc. can be used, also at < 15 times in wt. on the protein. Polyphosphate is also used at < 15 times in wt. on the protein. 28.9.77 as 117142 (3pp5)

HOHN ★ D13 43161B/23 ★J5 4053-111

Mfr. of oil for iron plate cooking - by mixing liq. vegetable oil with lecithin, sorbitan fatty acid ester and propylene glycol fatty acid ester

HOHNEN OIL KK 05.10.77-JA-119863

(26.04.79) A23d-05

Oil for baking or cooking meats, vegetables, etc. on an iron plate is prepd. by mixing a liq. vegetable oil with 1-5 wt.% lecithin, 0.05-2 wt.% sorbitan fatty acid ester pref. HLB value 4-10, and 0.05-3 wt.% propyleneglycol fatty acid ester, pref. of HLB value 2-5.

Oil has good low temp. storage properties and does not sputter during use. 5.10.77 as 119863 (3pp117)

NISW ★ D13 43372B/23 ★J7 9011-370

Food foaming agent prodn. from protein e.g. soybean protein - by hydrolysing with enzyme and heat treating to increase forming power and foam stability

NISSHIN OIL MILLS KK 12.09.73-JA-102164

(15.05.79) A21d-02/26 A23j-03/02 A23l-01

Method comprises hydrolysing protein (I) using enzyme, and heat-treating the hydrolysis soln. 5-60 min. at 120-90°C. The heat treatment increases foaming power and foam stability. (I) is e.g. soybean protein, milk casein, etc. 12.9.73 as 102164 A23j-3/02, A21d-2/26, A231-1/00 (15.5.79) NISSHIN OIL MILLS KK (2pp83)(J50052249)

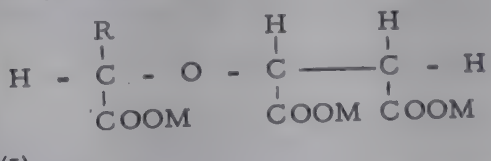
UNIL D13 03741W/03 =J7 9011-371

Aromatising, flavouring .and acidifying agents - consisting of carboxy-methyloxy-succinic and lactoxy-succinic acids

UNILEVER NV 25.06.73-US-373339

*E19 (15.05.79) *BE-816-824 A23g-09 A23l-01 C12g-01 +A21d-02/14 A23c-09/10 A23d-05/02*

Cpds. for giving piquant aromas and flavours, and/or a specific pH to edible materials., e.g. orange drinks and mayonnaise. are of formula (I):-



$$\mathrm{H-\overset{R}{\underset{COOM}{C}}-O-\overset{H}{\underset{COOM}{C}}-\overset{H}{\underset{COOM}{C}}-H}$$

(I)

In (I) R is H or CH_3; and M is H, and alkali metal atom, an alkaline earth metal atom. or an ammonium ion. (I) is e.g. carboxymethyloxysuccinic acid. 24.6.74 as 072195 (clg.25.6.73-US-373339) A231-1/00;A21d-2/14;A23c-9/10;A23d-5/02; A23g-9/00; C12g-1/00 (15.5.79) UNILEVER NV (6pp) (J50046850)

NAKA- ★ D13 43373B/23 ★J7 9011-375

Processed octopus mfr. - by pickling boiled and sliced octopus in vinegar contg. egg shell, sodium bi:carbonate and/or sodium hydroxide

NAKANO SUTEN KK 08.09.75-JA-108064

(15.05.79) A23b-04/12 A23l-01/33

Method comprises pickling boiled and sliced octopus in vinegar contg. 0.3-0.9 pts. wt. eggshell, $NaHCO_3$ and/or NaOH per 100 pts. wt. acetic acid (0.6 to 0.9 pts. wt. when eggshell or $NaHCO_3$ alone is used; 0.3 to 0.53 pt. wt. when NaOH alone is used.).

The pickling soln. provides excellent flavour and improved preservation. 8.9.75 as 108064 A231-1/333, A23b -4/12. (15.5.79) NAKANO SUTEN KK (3pp83)(J52034953)

GENO D13 62759T/39 #J7 9011-380
Prep. of powdered coffee drink mix - by combining coffee solids with carbohydrates
GENERAL FOODS CORP 09.06.71-US-151536 (27.07.70-US-058733)
*(15.05.79) *J47014-367 +A23f-01/12*

Process comprises combining coffee solid with carbohydrates, e.g. sugar and hydrolysed starch, and adding flavouring additives, e.g. essence thereby imparting a special flavour of flowers. 27.7.71 as 055710 (clg. 27.7.70-US-058733) A23f-1/12 (15.5.79) GENERAL FOODS CORP. (3pp)(J47014367)

NAAR ★ D13 43385B/23 ★NL 7712-745
Prepn. of sweet, buttery flavouring for food - by heating fructose and proline in polar solvent
NAARDEN INT NV 18.11.77-NL-012745
E13 (22.05.79) A23l-01/22

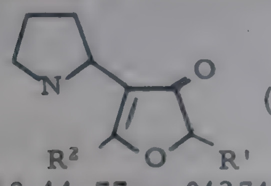
A flavouring for altering, reinforcing or supplementing the taste and/or aroma of foods or luxury goods is prepd. by heating fructose and proline in a polar solvent, and opt. removing the solvent.

A sweet, creamy and buttery flavour is conferred on the food. The flavour is not affected by later treatment of the food, e.g. cooking or sterilisation. Fructose is easily available and relatively cheap.

The solvent is pref. suitable for human consumption, e.g. ethanol or water. The ratio of fructose:proline is 1:2-15:1 (1-8:1). The amt. of solvent may be 0.1-40x wt. of the fructose+proline. The fructose may be pure, or may be used as a syrup contg. a small amt. of glucose. The amino-acid component contains ⩾ 50% proline, and may contain ⩽ 50% lysine, ⩽ 35% alanine, ⩽ 25% glycine and ⩽ 25% histidine. Reaction is pref. under reflux, at 65-160°C (75-140°C) for 0.3-10 hrs. 18.11.77 as 012745 (10pp510)

NAAR ★ D13 43386B/23 ★NL 7712-746
Enamine from alkyl-4-hydroxy-di:hydro-furanone-3 derivs. as flavouring - giving sweet buttery flavour to food
NAARDEN INT NV 18.11.77-NL-012746
E13 (22.05.79) A23l-01/22

A flavouring for altering, reinforcing or supplementing the taste and/or aroma of foods or luxury goods is prepd. by adding to the usual components an enamine of formula (I):



(I)

where R^1 and R^2 are H or (m)ethyl and ⩾1 (pref. both) R group is CH_3.

A sweet, buttery flavour is conferred on the food, or is reinforced. The flavouring can be added to foods which are later to be heated. 18.11.77 as 012746 (8pp510)

GENO ★ D13 B/23 ★PT --68-436
Making chewing gum with carbonated sugar content - uses materials with low humidity factor permitting prolonged storage without deterioration
GENERAL FOODS CORP 17.08.78-PT-068436
*(16.05.79) A23g-00/**

ALTA= ★ D13 43471B/23 ★SU -618-077
Multiple mould for cheese pressing - has box insert top rims resting on grid below top of rectangular outer frame
ALTAI BUTTER CHEESE 28.10.76-SU-415297
P13 (26.06.78) A01j-25/13

A mould includes a housing with a tray, perforated inserts and a cover. To reduce the metal content and to permit mechanical pressing of cheese from the mould, the housing is a rectangular shell and the inserts are formed as boxes. A grid is connected rigidly in the shell top and each insert has a thickened top rim by which it is held in the grid.

ALTA= ★ D13 43472B/23 ★SU -618
Cheese pressing device - has units for lifting moulds free of che
and mechanised arrangement for pressing
ALTAI BUTTER CHEESE 02.07.76-SU-381413
P13 (26.06.78) A01j-25/15

A frame mounted on uprights has a support plate with p
-sing elements, a conveyor delivers a multiple cheese
mould, and lift units raise the mould to the elements.
mechanise pressing out of the cheese, the uprights hav
brackets supporting the conveyor during pressing out,
the frame has stops and locators for limiting its mover
and locating it in two end positions. The plate has clar
for retaining the mould.
Dobrovolskij, I.-S. Yu., Sveshchinskii, O.B., Vasenko
P.T. et al. Bul. 29/5.8.78. 2.7.76 as 381413 (3pp1358

CANN= ★ D13 43477B/23 ★SU -618-
Dehydration of potatoes and vegetables - involves defrosting
centrifuging before final drying for rapid removal of water
CANNING VEG DRYING 29.04.76-SU-354005
Q76 (24.06.78) A23b-07/04 F26b-05/06

The method outlined in Parent Patent Cert. No. SU5660
comprises cleaning, cutting, blanching, cooling, two-s
freezing and drying. To reduce drying time and power c
-sumption, before drying the product is defrosted and t
centrifuged to remove 65-70% of the water content. Th
product is pref. defrosted by exposing to hot air flows.
Voskoboinikov, V.A., Manuiko, A.I., Komyakov, O.G.
Bul. 29/5.8.78. 29.4.76 as 354005 Add to 566096 (2pp
1358)

CANN= ★ D13 43478B/23 ★SU -618-
Drying vegetables with reduced wastage - by spraying with pe
soln. after blanching and before drying
CANNING VEG DRYING 23.08.76-SU-399003
(03.07.78) A23b-07/02

Vegetables are washed, inspected, cleaned, cut, blanch
and dried. To reduce process time and wastage, the ve
etables are treated with 0.5% pectin soln. before drying
The pectin improves dried product capacity for rehyd
-ion, eliminating Ca and Mg ions to ensure the splitting
protopectin, and for beet improves the appearance, leav
ing a dark violet colour in the dried product. Rehydrati
time is 15-20 min., i.e. a 2- to 2.5-fold reduction. The
method reduces wastage by 10-15% and heat-treatment
time by 3-5 times.
Kats, Z.A., Bugrova, L.N. Bul. 29/5.8.78. 23.8.76 as
399003 (2pp1358)

MOMO= ★ D13 43479B/23 ★SU -618-
Curds defrosting apparatus - with curds layer from roll nip uniform
heated between rolls and adjacent elements
MOSC MOLOKO PLANT 22.02.77-SU-456200
P13 (03.07.78) A01j-11 A23c-03/02

The apparatus includes a receiving hopper, nip rolls and
knives for stripping the layer of curds. To improve
throughput, the hopper has a distributor with two plates
forming a V-shape with the apex upwardly in the hopper
centre, leaving a gap at the hopper walls for curds to pa
to the rolls.
The rolls have heated slides, the upper part of which
tangential to the stripping zone and is spaced from it by
thickness of the curds. The distributor pref. has a vibr
ory drive.
Gorbunov, A.V., Lipovetskii, E.A., Lomonosov, V.G.
et al. Bul. 29/5.8.78. 22.2.77 as 456200 (3pp1358)

KGOB= ★ D13 43480B/23 ★SU -618-
Prodn. of milk-based dietary products for children - includes add
of lysozyme, vitamin(s), enzyme(s , trace elements and ascor
acid to increase organoleptic characteristics
KIRG OBSTETRICS 03.06.75-SU-140352
(03.07.78) A23c-09/12

The dietary prods. are made from purified milk contg.
sugar, by adding vitamins and enzymes in a complex pro
process.
A prod. of improved biological activity, closer to ma
ernal milk in props. is made by adding lysozyme soln. (

Fedotov, P.V., Padalka, N.A., Babich, V.V. Bul. 29/5.8.78. 3.6.75 as 140352 (2pp835)

MEAT= ★ D13 43481B/23 ★SU -618-089
Smooth butter prodn. from high fat cream - includes two/stage cooling at defined rates and time interval with mechanical treatment and maturing
MEAT CHEESE IND RES 20.08.76-SU-398863
(03.07.78) A23c-15/02

Butter contg. 37-39% plasma is made as follows: the first cooling stage is conducted at 35-40°C, cooling rate 1-1.5 °C/min. and the second to the churning temp. at 4-5°C/min. The two stages are separated by a time interval of 5-15 min.
Vyshemirskii, F.A., Krasulya, N.G. Bul. 29/5.8.78. 20.8.76 as 398863 (2pp835)

UMEA= ★ D13 43482B/23 ★SU -618-090
Curds manufacture with improved prod. storage stability - involves cooling in whey flow, to reduce fat and protein losses
UKR MEAT DAIRY IND (ROTO=) 01.09.76-SU-398040
(03.07.78) A23c-19/02

The method described in Parent Patent Cert. No. 575076 comprises cutting coagulum into cubes, allowing to stand, warming in a flow of whey to 55-58°C, dewatering in filters for 5 min., and collecting the dewatered grain in a perforated vessel for subsequent contact with cooling liquid. To reduce losses of fat and protein and to improve product shelf life, the curds are cooled in a flow together with whey, and the coagulum is cooked at 65-70°C.
Kushchenko, V.S. Bul. 29/5.8.78. 1.9.76 as 398040 Add to 575076 (3pp1358)

CONF= ★ D13 43484B/23 ★SU -618-092
Confectionery composition for soft cream sweets - includes addn. of butter cream and dried milk to increase nutritive value
CONFECTIONERY IND 11.03.77-SU-461853
(03.07.78) A23g-03

Confectionery compositions claimed in parent patent 330848.

The quality, taste and nutritive characteristics are improved for soft cream sweets by whipping additionally with butter cream and dried milk in the ratio 1:(1-1.5).
Sokolovskaya, T.A., Taleisnik, M.A., Ovchinnikova, A.S et al. Bul. 29/5.8.78. 11.3.77 as 461853 (2pp835)

VOTE= ★ D13 43485B/23 ★SU -618-093
Non-alcoholic beer concentrate prodn. - includes using barley, rye and amylolytic and proteolytic enzyme(s) to accelerate mfr.
VORON TECHN INST 15.07.75-SU-157043
(D16) (03.07.78) A23l-01/18

The KVASS (RTM) concentrate is made from a mash of rye flour, liquefying with enzymes, adding sugar, clarification, heating the wort, blinding and concentration.

The process is accelerated and simplified by using wet ground barley in the mash held at 18-20°C for 10-12 hrs. Enzymes with amylolytic and proteolytic props. are added with the sugar and heat treatment is conducted at 0.15-0.20 Mpa press. for 1.5-2.0 hrs.
Derkanosov, N.I., Faradzheva, E.D., Chuvasheva, K.K. et al. Bul. 29/5.8.78. 15.7/75 as 157043 (2pp835)

LARI/ ★ D13 43486B/23 ★SU -618-094
Dried potato puree manufacture - involves exposing granules on perforated drum surface to prod. powder and gas flow for powdering and drying
LARIONOV B A 07.10.75-SU-179848
(03.07.78) A23l-01/21

Potato puree is passed through a movable perforated surface and the granules are contacted by a powder-gas flow directed at the line where granules break off the surface and in the opposite direction. The flow prevents granules sticking to the surface, partially dries them and intensifies heat and mass exchange.
Larionov, B.A. Bul. 29/5.8/78. 7.10.75 as 179848 (2pp1358)

POTA= ★ D13 43487B/23 ★SU -618-095
Powdered potato mash prodn. - includes final skinning and mashing in a fluidised bed to reduce wastage

The quality of potato mash is increased with minimal wastage and prod. is simplified. Potatoes are washed, soaked and again washed before slicing. Potatoes are then inspected after sulphitisation, cooled in air after cooking, then cleaned by extrusion to threads of 1-2 mm diam. in a fluidised bed (2-10 kg/m^2). The threads are then reduced to 0.5-1 mm. diam. for puree prodn.
Zaletskii, V.N., Svyatoslavskaya, T.N., Gusynina, E.T. et al. Bul. 29/5.8.78. 16.8.76 as 400031 (3pp835)

MOSN ★ D13 43488B/23 ★SU -618-096
Rapid freezing of food products - by exposing to ultrasound while in coolant
MOSCOW NAT ECONOMY INST (MEAT=) 15.12.76-SU-431597
(D12) (29.06.78) A23l-03/36

Food products are frozen more rapidly and their quality improved by placing in a coolant and simultaneously exposing to ultrasound at 18-66 kHz and 16-40 W. The products are e.g. meat pieces in polymer film or aluminium foil wrapping, and the treatment intensifies heat-exchange in the boundary layer and causes ordered formation of finely-crystalline ice in the product.

In an example, meat in aluminium foil is cooled in ethyleneglycol at -22°C. using 22 kHz ultrasound pulsed at 100 pulses/s.
Antonov, S.F., Lebedev, V.F., Khasilev, V.Ya. et al. Bul. 29/5.8.78. 15.12.76 as 431597 (2pp1358)

SATA/ D13 34730Y/20 =US 4155-295
Rice polishing machine - with constant rice to water feed ratio maintained by admission means linkage
SATAKE T 29.10.75-JA-130807
*+P41 (22.05.79) *DT2647-373 B02b-03/12 +B02b-01/04*

Rice pearling system includes a pearling chamber comprising a pearling roll and a multiple-holed debranning-pearling cylinder surround the roll.

Appts. is improved by arranging a water feeder to introduce controlled amts. into the pearling chamber using a pump. The pump controls are linked to a rotary valve device in the rice inlet conduit. The motor drives for the coater pump and rice control valve are supplied from an electric controller device.

By restricting the amt. of water and the contact time between the rice and the water, an improved surface finish is given to the rice combined with efficient bran removal without producing cracks or other damage on the surface of the rice grain. 24.5.78 as 908805 (+28.10.76-US-736565)(8pp397)

VROM- D13 66952A/37 =US 4155-689
Frozen foodstuffs prodn., such as desserts - with filling including edible solids, such as ice cream, extruded in metered quantities into preformed confection discs
VROMAN FOODS INC 04.05.77-US-793635 (06.03.78-US-883925)
*(22.05.79) *US4100-304 A23g-09/04*

Appts. for processing confections in viscous, e.g. frozen condition comprises a conveyor delivering disc-like confections having central voids to a station where a viscous mix including edible solids is inserted in the voids.

The mix is fed to a delivery nozzle where a metered portion is severed by a cutter and moved into the void. The viscous confection is pref. a dairy prod. or aerated marshmallow and the solids are pref. nuts, fruits, etc. The appts. effects the simple mfr. of a composite confection. 6.3.78 as 883925 Div. ex. 4100304 (8pp1379)

BLUE- ★ D13 43870B/23 ★US 4155-770
Sprayable lecithin based cookware lubricant - contg. white mineral oil to improve consistency
BLUE CROSS LAB 03.04.78-US-892487
(22.05.79) C08l-91

A pump spray dispensible pan lubricant contains per 100
pts. of compsn. 2.5-25 pts. lecithin, the rest being a
mixt. of 10-40 pts. white mineral oil of saybolt viscosity
< 110 at 100°F, 25-55 pts. vegetable oil and 5-15 pts. eth-
anol or isopropyl alcohol, the compsn. having a soybolt
viscosity less than 165 at 100°F.

The compsn. can be pumped with minimum effort and
covers pan surfaces evenly. It can tolerate the presence
of small amts. of water. 3.4.78 as 892487 (3pp955)

NEST D13 06000Y/04 #US 4156-018

Cheese powder prepn. from skim soln. - by inoculation fermentation heating coagulate separation fat addn. and drying (NL110176)

SOC PROD NESTLE SA 09.07.75-CH-008938 (09.06.76-US-694318)
*(22.05.79) *DT2541-102 A23c-19*

A cheese in powder form is produced, which after reconstitution with 40-60 wt.% of water, and heating to 50-80°C has the properties of heated mozzarella.

A colloidal soln. of a skimmed milk or reconstituted skimmed milk powder is inoculated with a lactic ferment contg. lactic acid producing Streptococcus bacteria. The soln. is allowed to ferment under aerobic conditions until the pH falls from 4.8 to 5.2. The ferment is then heated to 40-70°C under turbulent conditions to obtain curds and serum. The curds are sepd. from the serum, which are then mixed with 35-45 wt.% w.r.t. dry matter, of fats. pH of mixt. is maintained at 5.1-5.3 cooking salt is added, the mixt. homogenised and spray-dried to obtain powder form.

Prod. has a delicate milky taste, a creamy paste-like consistency and cohesion properties, and keeps well after reconstitution. 9.2.78 as 876511 (2pp931)

DSOM- D13 32466W/20 =US 4156-019

Bulgarian yoghourt ferments prepn - from micro-organism strains of St. Thermophilius and Lb Bulgaricum

DSO MLECHNA PROMISH 04.12.73-BG-025150
*(D16) (22.05.79) *BE-822-911 A23c-09/12*

Combination starters for the prodn. of Bulgarian sour milk are obtd. by inoculating each of a number of portions of sterile cow milk with a combination starter contg. micro-organisms strains selected from Lactobacillus bulgaricus Nos. 5,26,37 and 144 and another microorganism strain selected from Streptomyces thermophilus Nos. 12, 14, 18 and 22 to form a number of inoculums. The inoculums are cultivated at 44-46°C to cause coagulation, and coagulation times are observed.

Combination starters are selected which cause coagulation in $\sim$ 2 hrs. and have desired cellular configuration and ratio between the two strains. Sterile sheep milk or a 1:1 mixt. of sheep and cow milk portions are inoculated with $\sim$ 1% of selected starters to form inoculums. The inoculums are subcultured by daily innoculation in the sheep milk during first four months and weekly for two additional months.

Combination starters which maintain consistant cellular configuration and consistant desired ratio between the two strains throughout subculture are selected. The resulting combination starters are tested for producing Bulgarian sour milk. 25.4.77 as 790535 (+4.12.74, 27.9.76-US-529475, 727040)(7pp964)

CORP D13 03921X/03 =US 4156-020

Dry hydrosoluble foodstuff prodn - by mixing starch etc with friable mass of hydrophilic substance

CPC INTERNATIONAL INC 21.08.74-DT-439993
*(22.05.79) *BE-832-598 A23l-01/34*

A dry edible prod. is prepd. in the form of agglomerates having starch nuclei. Each nucleus is embedded in a layer of a hydrophilic substance.

A homogeneous, conditioned mass of hydrophilic substance, moisture and starch is prepd. by first mixing together to form a crumbly mass 3-30 wt.% of $\geq$ 1 hydrophilic substance with water or aq. lia. Then 25-75 wt.% of starch (-contg. material) is folded into the crumbly mass to obtain a homogeneous mass. The mass obtd. is conditioned at ambient temp. with agitation for $\geq$ 20 mins. The mass is dried to a moisture content of 2-10%. The dry prod. is sifted to particle size of 100-300 microns.

Discrete particles contg. nuclei of starch (-contg. material) with each nucleus embedded in a layer of hydrophilic substance are formed. Hydrophilic substance is a sugar, sugar alcohol, inorganic salt, sodium glutamate or their mixts. Used in blending with dry food ingredients to form an instant food prod. capable of being easily dissolved
lumps. 14.7.77 as 815757

MAXF- ★ D13 43980B/23 ★US 4156-

Simulated human food prod. - contains cellulose fibres, edible gum and emulsifier

MAXFIBE INC 09.03.77-US-775902 (03.03.76-US-663498)
(22.05.79) A23d-05 A23l-01/04

Oleaginous fibrous compsn. for human consumption co
sists of (a) a binder mixt. (A) of edible oil and gum in
water with an emulsifier (B) to stabilise the oil in coll
al suspension, and (b) particulate fibrous cellulose (c),
uniformly intermixed with (A), of average particle leng
$\not>$ 40 µ.

The oil is 8-60%, the gum $\geq$ 0.1% (dry basis) and (
10-85% (dry basis). (c) is esp. refined powdered cellu
ose derived from wood pulp which has been solvent tre
to remove non-cellulose components. The compsn. op
contains flavouring, colouring, microbial inhibitor and
id to give pH $\not>$ 4.6.

The compsn. is high in fibre but low in calories, an
palatable. It may be used to simulate e.g. margarine,
cheese spread, meat, fish, etc. 9.3.77 as 775902
(+19.8.76-US-715909)(12pp1251)

JESS/ ★ D13 43981B/23 ★US 4156

Method for colouring cherries - in which fruit is sealed in colou syrup and stored at room temp.

JESSEN K T 30.12.77-US-866048
(22.05.79) A23b-07/08 A23l-01/27

Cherries are coloured by (a) mixing 18-24 pts. sugar,
55 pts. carbonated water, 23-26 pts. syrup, 6-9 pts.
EtOH, 0.1-3.0 pts. colouring and 0.1-0.5 pts. flavour
(b) adding the mixt. to cherries in wt. ratio 1:1; (c) se
ing the mixt. in containers, and (d) storing at room te
until the desired level of colour is obtd. The method
time, labour and energy, and does not cause shrivelli
of the cherries.

Suitably the cherries are stored for at least 7 days.
After this, a portion of the soln. is decanted and repla
by a glaze contg. sugar, syrup and water. The syrup
is pref. light corn syrup. 30.12.77 as 866048 (3pp95

NEST ★ D13 43982B/23 ★US 415

Soluble tea prod. prepn. - by pptn. of cold water insol. tann then catalysed oxidative solubilisation

SOC PROD NESTLE SA 30.06.77-US-811967 (17.03.76-US-667
(22.05.79) A23f-03

A soluble tea prod. is made by chilling a hot-water ex
of fermented black tea leaves to ppte. cold-water insc
le tannins (A). Recovered (A) are washed with water,
dispersed in aq. medium and the dispersion, of pH 4.
treated with O_2 and an inorganic oxidn. catalyst.

(A) undergo oxidative solubilisation with simultane
prodn. of free acid and the resulting aq. soln. is then
sepd. from the catalyst. Specified catalysts are MnO
Co_3O_4, CuO, V_2O_5, $CuCO_3$, NiO, Cr_2O_3 and/or Ag, op
an inert support. MnO_2 is esp. pref. and oxidn. is at
110°C.

Completely cold-water soluble prods. can be made
which give beverages of the same flavour, appearanc
colour as freshly-brewed tea. The process is simple
smaller amts. of reagents are need cf. known solubil
ion methods since oxidn. does not require alkaline co
ions. 30.6.77 as 811967 (6pp1251)

NEST D13 69010X/37 =US 41

Highly nutritious proteinaceous fibres prodn. - by spinni alkaline soln. of a mixt. of vegetable and milk proteins

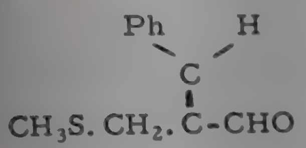
SOC PROD NESTLE SA 12.02.75-CH-001705
*F01 (22.05.79) *DT2604-234 +A23l-01 A23p-01*

Proteinic filaments are prepd. of high nutritive valu
prepg. an alkaline soln. of pH > 11 and contg. a mi
proteins of vegetable origin and whey, such that whe
teins are $\leq$ 50 wt.% mixt., passing the soln. through
nerets into an acid coagulation bath of pH < 4, and fo
the filaments.

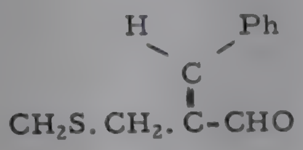
Pref. whey proteins are 20-40 wt.% mixt., and a
obtd. by coagulation, or ultrafiltration or gel filtrati
whey. Vegetable proteins are soya proteins. Filam

NFL ★ D13 43985B/23 ★US 4156-029
somer mixt. of 3-phenyl-acrolein derivs. - useful for improving flavour and aroma of meat extract etc.
INT FLAVORS & FRAGR INC 03.05.78-US-902389 (22.12.76-US-753462)
E14 (22.05.79) A23l-01/23

A mixt. of pure. synthetic cis and trans isomers of 2-/methylthiomethyl/-3-phenyl-acrolein of formulae (Ia) and (Ib) is new.



$\mathrm{CH_3S.CH_2.}\overset{\overset{\mathrm{Ph}\quad\mathrm{H}}{\mathrm{C}}}{\overset{\|}{\mathrm{C}}}\mathrm{-CHO}$ (Ia)



$\mathrm{CH_2S.CH_2.}\overset{\overset{\mathrm{H}\quad\mathrm{Ph}}{\mathrm{C}}}{\overset{\|}{\mathrm{C}}}\mathrm{-CHO}$ (Ib)

The cis:trans ratio is 7:3-9.5:0.5, esp. about 87:13. Compsns. for enhancingor augmenting the taste or aroma of a foodstuff comprise 0.1-15 wt.% of this isomer mixt. plus ≥ 1 adjuvant. They are added to provide 0.02-50 ppm by wt. of the mixt.

Esp. for use with meat extract, hydrolysed vegetable protein, etc., partic. at 0.2-25 ppm. The mixt. gives a green, weedy aroma with monosodium glutamate-like character and a sweet mouthfeel. 3.5.78 as 902389 Div. ex. 4064279 (+24.8.77-US-827265)(17pp1251)

NEST ★ D13 43986B/23 ★US 4156-030
Flavouring and colouring extract from cocoa shells - prepd. by extn. with acidified ethanol
SOC PROD NESTLE SA 29.12.77-US-865622
(22.05.79) A23g-01 A23l-01/22

An extract with a berry-like flavour and colourant properties is prepd. by extracting cocoa shells with acidified ethanol soln., and sepg. the soln. from the cocoa shell residue. The prod. is useful in confectionery and icecream prods., and esp. as colouring and flavouring for a soft drink.

Pref. the cocoa shells are of particle size 50-100 microns. The extractant soln. contains 85-90% EtOH and 10-15% acid, which is esp. HCl, H_3PO_4, citric or tartaric acid. Extn. is carried out at reflux for 30 mins.-2 hrs. Ethanol is pref. recovered from the residue and recycled. The extract maybe concentrated, and opt. dried to a powder. 29.12.77 as 865622 (3pp955)

ECKA- D13 72565W/44 =US 4156-032
Dry, reconstitutable potato flakes - by cooking potato slices, slurrying, injecting aqueous suspension of soluble proteins, and drying
PFANNI-WERK ECKART 14.06.74-DT-428546
*(22.05.79) *BE-829-749 A23l-01/21*

A reconstitutable potato puree is prepd. in dried flake form by washing, peeling, slicing, precooking, cooling, cooking, forming a puree of the cooked potato, and drying the puree on a drum dryer. An aq. suspension contg. 2-12 wt.% w.r.t. dried potato solids of a water-soluble protein material is homogeneously dispersed in the puree prior to the drying step. Protein material is an egg albumin or lactose-poor whey protein. Suspension has a solids contentof 9-45 wt.%.

Pref. lactose-poor whey protein is prepd. by pptn. from, or ultrafiltrationof whey and consists of the albumin and globulin fractions from milk.

Prepn. has improved consistency, even if whole milk or skim milk is added to the puree. Resulting prod. can be reconstituted merely with hot water. 28.10.77 as 846585 (+12.6.75-US-586212)(7pp931)

PIFF/ D13 58037Y/33 =US 4156-077
Extracting red anthocyan dye from litmus seeds - with acids or acidified organic solvents and isolating
PIFFERI P G 12.11.75-IT-003583
*B07 E24 (D21) (22.05.79) *FR2331-605 C09b-61 +C07h-15/04*

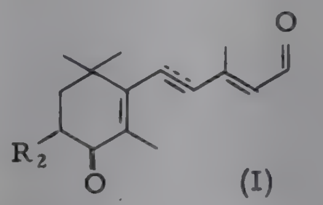
Anthocyanin is produced by treating sunflower seed husks contg. anthocyanin at ambient temp. in a non-oxidising atmos. with an acid soln., then filtering the soln. and concentrating under vacuum at 35-40°C to obtain a red liq.

The acid soln. is water and an (in)organic acid an organic solvent and an aq. soln. of an (in)organic acid or a pure liq. organic acid.

Pref. the solvent is acetene or an alcohol. Pref. the acid is formic, acetic, lactic, malic or citric acid. 1.11.76 as 737768 (3pp974)

HOFF D13 40323Y/23 =US 4156-090
Carotenoid astaxanthines and (15,15')-didehydro astaxanthines mfr. - by Wittig reaction, prods. being orange-red dyes for use as food colourings, in pharmaceuticals, and in cosmetics
HOFFMANN-LA ROCHE INC 30.11.75-CH-015465
*B07 E24 (D21) (22.05.79) *DT2653-838 +C07c-69*

Novel polyene cpds. are of formula (I) (where R_2 is OH or acyloxy; and dottedbond can be hydrogenated). Specific. cpds. include 5-/2,6,6-trimethyl-3-oxo-4-(phenoxyacetoxy)-cyclohex-1-en-1-yl/-3-methyl-penta-2,4-dien-1-al.


(I)

(I) is an intermediate for astaxanthin which is a known colouring material for foodstuffs, cosmetics and pharmaceuticals. 12.11.76 as 741324 (12pp974)

AHIO- ★ D13 44012B/23 ★US 4156-179
Cow mastitis detection from milk sample - placed in cup with electrodes measuring conductivity
AHI OPERATIONS LTD 16.02.77-US-769192
B04 C03 R16 (22.05.79) G01n-27/42

A mastitis detector comprises a cup for receiving a milk sample from a cow. Within the cup is a central inner chamber sepd. from an annular outer chamber by a low wall. Electrodes are located in each chamber and are connected to electrical circuits which measure the conductivity of the milk.

Indicators e.g. light emitting diodes are energised by the detector circuitry in accordance with the measured conductivity. Pref. the control circuitry is battery-powered and mounted in a compartment associated with the cup in a hand-held device.

The appts. detects mastitis in a cow. The annular construction ofthe chambers in the cup reduces errors of measurement due to partial filling of the cup. 16.2.77 as 769192 (5pp295)

See Also

D16 GB 1547063
D17 DT 2851627
D23 US 4156031
D16 J5 4052786
D18 DS 2716562
B16 SU 614646
D23 J5 4052021

D14: FOODSTUFF MACHINERY

META- ★ D14 B/23 ★BR 7706-988
Drying chamber for cereals
METALURG FERROARTE 19.10.77-BR-006988
(22.05.79) A23n-09

MECC/ ★ D14 B/23 ★BR 7707-095
Heated wall structure
MECCIA A C 24.10.77-BR-007095
(22.05.79) A23l-01/34

WESS ★ D14 42473B/23 ★CH -610-733
Appts. for continuously sepg. fruit flesh and juice - rotates vanes and enclosing conical sieve at different speeds
WESTFALIA SEPARATOR AG 19.09.75-CH-012216
P43 (15.05.79) A23n-04/22 B07b-01/26

Fruits, esp. grapes, are processed in a machine in the housing of which there is a rotor with radial vanes enclosed by a sieve which also rotates on the axis of rotation, at a circumferential speed different from that of the rotor. In the radial projection to the axis of rotation, the faces of the vanes subtend an acute angle to this axis, and the sieve and the rotor are conical in shape.

At its narrow end the sieve has a filling inlet, and an adjusting mechanism is provided to vary the distance between the inner surface of the sieve and the rotor vanes, which makes possible a relative axial motion between sieve and rotor.

Used for the continuous sepn. of the flesh and juice of fruits from the kernels, esp. of the flesh and juice of grapes from the seeds and skin. The arrangement makes it possible to separate the seeds completely so that their oil can be recovered, whilst the quality of the mash for fermentation is improved. 19.9.75 as 012216 (6pp1014)

HOUT/ ★ D14 42631B/23 ★DT 2803-773
Cheese rind planing machine - with cutter heads on flexible shafts on hinged levers
HOUT C 28.11.77-NL-013110
P13 (31.05.79) A01j-27/04

A machine to remove the rind from large cheese rolls has two parallel flexible shafts above the worktable which takes the rolls through the machine. Each shaft carries a number of cutter heads, with those on one shaft overlapping the gap between the cutter heads in the other. Swivelling levers between the cutter heads are supported at the other end in bearings on support spindles.

This saves the labour consuming manual planing of the rind which includes the sprayed-on plastic coating. It wastes a minimum of eatable cheese material. 28.1.78 as 803773 (17pp39)

NORV- ★ D14 42688B/23 ★DT 2850-910
Ring mould press for fodder pellets - with steam admixture to conditioner controlled by press motor current (BE 30.5.79)
NORVIDAN ENG APS 30.11.77-DK-005299
P71 +P41 (31.05.79) A23k-01/20 A23n B02c B30b-11/22

A pellet press for ground animal feeding stuff is controlled by raising the amount of steam introduced in a mixer preceding the press until the load current of the press drive motor begins to rise. It is then reduced until the current has reached a minimum and is retained at that level until any change in feed results in a motor current rise. The steam admixture rate is then readjusted.

This requires only one control system to keep the motor current to a minimum. Such an automatic control increases the efficiency of the press and ensures the best utilisation of the press capacity. 24.11.78 as 850910(11pp39)

DIGE/ ★ D14 42762B/23 ★FR 2402-087
Piston pump for food prod. viscous liquids and pastes - has gentle action to avoid stressing and heating prod.
DIGEOS J 29.08.77-FR-026233
Q56 (04.04.79) F04b-15/02

The pump is of the type in which prod. is displaced by a piston reciprocating axially in a cylinder. The cylinder is diametrically partitioned into coaxial inlet and delivery chambers with the piston reciprocating in the inlet chamber. Uni-directional non-return valves are fitted in passages which can allow prod. to flow (a) into the inlet chamber, (b) through the piston from inlet valve side to partition side and (c) through the partition from the piston side to the outlet chamber side. The three non-return valves are axially aligned.

The piston is pref. fixed to a rod which passes through the partition and extends through the end wall of the delivery chamber. The cylinder is pref. $\leqslant$ 1 metre long and is at least 70 mm in dia. All valve passages are pref.

ionery prods., chocolate, pastries, biscuits etc.
quality of the prod. is protected by subjecting it to
stress and insignificant heating as it is pumped.
no centrifuging and little compression. Inexpensi
hygienic construction. 29.8.77 as 026233 (11pp448

OOKA- D14 57714A/32 =J7
Granulating drugs or foodstuffs - using a continuously o
automatic granulator
OOKAWARA SEISAKUSHO 17.12.76-JA-152649
*B07 (14.05.79) *J53076-168 B01j-02/16*

The device has an inverted conical column for forr
fluidic chamber. A material feed port and spray r
are disposed in an upper space of the chamber. A
collector provided with a bag filter is disposed abo
same chamber.

At its lower end, a prod. drain port provided w
openable cover, stirring blade structure, and disp
plates, each having a large number of the oblique
holes, are disposed. A gas feed chamber is dispo
low the fluidic chamber. 17.12.76 as 152649 B01j
(14.5.79) OOKAWARA SEISAKUSHO (3pp)(J530761

NEST D14 69134W/42 =J7
Foodstuff bacteriostat - is a green coffee bean extract and
affect taste
SOC PROD NESTLE SA 08.04.74-CH-004907
*P34 (15.05.79) *DT2425-215 A23f-01 A23l-03*

A bacteriostat for organic materials is a green cof
extract. The organic material is esp. a foodstuff.
bacteriostat is effective without affecting the food's
Extn. from the fatty skin covering the green coffe
may be of the convention acid/base type, pref. afte
having selectively removed the caffeine by known n
Thereafter, the bacteriostat is extracted, pref. us
ethyl or di-isopropyl ether. The amt. used in the
0.15-0.6 wt.% (on a dry basis). 7.4.75 as 042144
8.4.74-CH-004907) A231-3/00, A23f-1/00 (15.5.79
PROD NESTLE SA (5pp)(J50140626)

GRAI= ★ D14 43473B/23 ★SU
Granulated fish feed water-resistance measuring appt
removable graduated tubes from tanks with bottom mes
bottom elastic membranes
GRAIN PROC RES INST (COMP=) 01.12.76-SU-426380
C03 P14 (26.06.78) A01k-61 A23k-21/20

Apparatus for determining the water-resistance of
ated fish feed comprises cylindrical tanks each wit
nel-shaped bottom, a mesh frame for the granules
ed to a funnel by a graduated tube, and a vibratory
for holding the tubes.

To simplify operation there is an auxiliary base
spring-biased elastic membranes mounted on the n
base. The tanks are mounted in the auxiliary base
tubes are removable and mounted on the membrane
bases are pref. interconnected by tie rods.
Rodkin, B.Sh. Salomatin, A.I. Bul. 29/5.8.78. 1.
as 426380 (4pp1358)

NATY ★ D14 43785B/23 ★US
Continuous cooking appts. e.g. for soybean prods. -
elongate tank, conveyor and spray and liq. overflow mean
NABISCO INC 15.07.77-US-816182 (25.02.76-US-66111
P28 (22.05.79) A47j-37/12

Appts. for continuously cooking and leaching food
with a cooking liquid at elevated temp. comprises
gate tank for the liquid having a product infeed end
inclined product infeed end and an inclined product
charge end; and (b) a driven endless conveyor hav
upper flight which passes through the liquid in the
for carrying the food pieces through the liquid, the
of the endless conveyor adjacent the inclined disch
end of the tank being similarly inclined.

Liq. can be withdrawn along each side of the ta
spaced apart points for heating, then returned to th
at points along the centre line thereof.

Sprays above the inclined portions rinse with co
liquid, the food pieces travelling on conveyor prio

sprays to the overflow means in a direction opposite the movement of the food pieces. 15.7.77 as 816182 (-pp)

See Also

D15 FR 2401694

D15 : WATER TREATMENT

KERJ ★ D15 42412B/23 ★BE-872-416

Treatment of waste soln. contg. ammonium nitrate - originating from prepn. of nuclear combustible material, by thermal decomposition of the ammonium nitrate

KERNFORSCHUNGS JULICH 11.11.78-DT-849050 (30.11.77-DT-753368)

E35 K07 Q73 (E16) (30.05.79) F23g G21f

The treatment of waste solns. contg. ammonium nitrate and possibly urea, originating from the prodn. of combustible and/or fertile materials for nuclear reactors, involves injecting the relatively conc. soln. as a fine spray, into a zone of thermal decompsn. of ammonium nitrate. The decompsn prods. are sepd. by condensn. into a liq. phase and a gaseous phase.

In this process, the waste soln. is first concd. in a thin film evaporator equipped with a vacuum pump. The concentrate then passes through a filtration apparatus and is fed into a cooled storage reservoir, from which it is introduced into a heated decompsn. tube. The decompsn. prods. pass through a condenser, and the condensate is collected in a reservoir.

The process can be carried out continuously, and allows relatively conc. solns. to be treated without risk of explosion. 30.11.78 as 872416 (21pp1319)

SIEI ★ D15 42426B/23 ★BE-873-868

Determn. of dissolved organic solids content in water - by oxidn. with potassium di:chromate in reaction chamber with automatic drain valve

SIEMENS AG 01.02.78-DT-804287

J04 R16 (29.05.79) B01l G01n

The appts. is of the type in which the sample is oxidised by heating in a reaction chamber together with a soln. of potassium dichromate. The reaction chamber is partly immersed in a thermostatic temp. bath. A cooling jacketed chimney extends upwards from the reaction chamber, which also has a drawn passage in its base. The drain passage extends through the bottom of the temp. bath to connect to an outlet valve.

The outlet valve fixed on the drain passage can now be operated automatically, e.g. by compressed air. The connection from the reaction chamber drain passage pref. has a coned seating into which a coned spigot of the valve is lapped with grinding paste. The automatic valve is pref. normally closed by spring pressure and opened by air pressure displacing a piston. An agitator in the reaction chamber is pref. driven via an extended shaft from an electric motor fitted on top of the chminey.

Used for analysis of water to determine the content of organic solids dissolved in and not miscible with the water. The appts. is compact and is adapted to be readily incorporated in a completely automatic analytical system, partic. one operating to a preset programme. 1.2.79 as 873868 (10pp448)

SIEI ★ D15 42427B/23 ★BE-873-869

Automatic dosing of predetermined quantities of several liquids - using a single piston burette, for use in water analysis etc.

SIEMENS AG 01.02.78-DT-804316

J04 R13 R16 (29.05.79) B01p G01f G01n

Appts. comprises a receptacle joined to a valve unit and a burette with a piston driven by a motor, which introduces the liq. into the receptacle. Within the valve unit are several inlet tubes and ≥1 outlet. Each of the inlets can be joined separately to the burette through a valve and the burette is linked to the receptacle via a channel fitted with a control valve.

Appts. is partic. useful in the analysis of water. The operates automatically. It can de-

a single piston burette. 1.2.79 as 873869 (13pp1330)

BETZ ★ D15 42461B/23 ★CA 1054-476

Control of deposition in steam generating system - by addn. of non-sulphonated, carboxylated lignin deriv. to system water

BETZ LABS INC 15.05.75-US-577586

A97 F09 (15.05.79) C11d-07/22

Deposition in steam generating systems is controlled by adding 1-500 (10-50) ppm of a non-sulphonated, carboxylated lignin deriv. (I) to the H_2O of the steam generating equipment. (I) has little tendency to oxidise under oxidn. conditions, a mol. wt. of 1000-125000 and an Alpha range of 5-50. Pref. (I) have Alpha range 10-40, and are derived from a Kraft pine lignin.

Use of (I) controls the deposition of various muds, silts and debris and the formation of scale in the metallic structures of steam generating equipment so that systems may be operated economically and continually. 12.12.75 as 241634 (18pp478)

JONE/ ★ D15 42465B/23 ★CA 1054-728

Coal-base landfill leachate treatment for contaminant removal - from ground-water, using adsorptive curtain wall of coal to intercept refuse leachate

JONES C T 19.03.76-CA-248327

Q35 (15.05.79) B65g-03/02 C02c-01/02

Landfill leachates are treated within a prepared landfill site comprising a drained impervious base which is overlaid with an impervious liner and covered by layers of adsorbent C. A plurality of interconnected perforated flexible pipes are laid within the C to gather and conduct the leachate to collecting sump wells which extend vertically to the surface of the landfill. Refuse is placed on the C and leachate passes through the refuse to the pipes to the wells for pumping to sepn. beds, biological treatment beds and tertiary treatment beds.

Used for recovering and treating leachates from landfill operations utilising coal base. Leachates issuing from both controlled and uncontrolled landfill operations can be treated. Heavy metals, BOD, COD are removed in great quantities from the leachates. The adsorptive contain wall of C surrounding old landfill operations intercepts the horizontal flow of leachate. Offensive odours can also be removed along with harmful bacteria, pathogens and viruses to prevent them from passing into ground waters. 19.3.76 as 248327 (32pp1044)

BADI D15 20352R/13 =DS 1792-584

Edta salt with synergistic anticorrosion agent as - anti-boiler scale agent

BASF AG 21.09.68-DT-792584

*E19 M14 (31.05.79) *NL6914-102 C02b-05/06 C23f-11*

Thiourea and/or its mono- and/or di-substd. N-alkyl or N-aryl derivs. are used as corrosion inhibitors in feed water for boilers. The feed water is alkaline and contains oxygen and polyaminopolycarboxylic acids or their salts as descaling agent. A 4-16C mono- or polyvalent acetylene alcohol may also be present. 21.9.68 as 79258 4 (2pp068).

ROHM D15 32137S/19 =DS 2051-200

Decolourising waste bleaching liquors from - cellulose prepns

ROHM & HAAS CO 28.10.69-US-871975

*F09 J01 (31.05.79) *DT2051-200 +D21c-11*

Waste water from the bleaching of cellulose is decolourised by removing coloured organic cpds. The waste water contains waste water from the caustic extraction that has been treated with chalk to remove at least part of the coloured cpds. The alkaline coloured filtrate after removal by mixing with a coloured chlorination waste water. The mixt. is passed through a macroreticular resin adsorbent for bleaching.

The resin is pref. regenerated by treatment with a NaOH soln. 19.10.70 as 051200 (5pp068).

CIBA D15 38160T/24 =DS 2159-172
Treating water - to reduce scale deposit, by addition of hydrolysed low-molecular polymaleic anhydride
CIBA GEIGY AG 30.11.70-GB-056760
*A97 (31.05.79) *NL7116-226 C02b-05/06*

Deposition of boiler scale is inhibited by treating H_2O with 0.1-100 pts. wt. of hydrolysed polymaleic anhydride (I) having a mol. wt. of 300-5000 before hydrolysis, or a H_2O-soluble salt of (I), per million pts. wt. of H_2O.

The treatment also modifies the scale deposits so that they do not adhere firmly, or are easily removed from the heat-transfer surfaces with the aid of mechanical devices. 29.11.71 as 159172 (5pp481).

UGIN D15 66592U/44 =DS 2319-244
Treatment of effluents contg chromium - by extraction with org solvent
PROD CHIM UGINE KUH 14.04.72-FR-013318
*E31 (31.05.79) *NL7305-146 C01g-37/14 C02c-05/02*

Process for recovery of Cr (VI) from strongly acidic solns. of Cr (VI) cpds. in residual liquors or waste liquors, comprises liquid liquid extraction with an organic water immiscible solvent, followed by extraction of the organic phase with an aq. soln. contg. Na salts, esp. Na_2CrO_4 solns. 16.4.73 as 319244 (5pp047).

TODA- D15 09518X/06 =DS 2460-493
Iron oxides recovery in purificn. of waste liquors - by alkaline pptn., oxidn. of slightly acid medium and dissoln. of manganese
TODA KOGYO CORP 15.07.74-JA-081496
*E31 M12 (E32) (31.05.79) *DT2460-493 C01g-49/02*

Prepn. of spinel type Fe (III) oxide contg. Mn comprises addn. of alkali to an aq. soln. contg. an Fe (II) salt (1-2 mole/dm^3), and a Mn(II) salt so that 5-30 mole % of the Fe (II) content is pptd. as $Fe(OH)_2$; the suspension is then treated with an oxidising gas (e.g. air), whilst stirring at 60-90° and adding alkali dropwise to maintain constant pH (± 0.05) at 5-6; the pH is then adjusted with H_2SO_4 or other acid) to 3.5-5.0% the ppte. is collected, washed and dried. 20.12.74 as 460493 (10pp047).

KAHL- D15 78565A/44 =DS 2718-269
Oblong sewage settling tank - with raking plough on cantilever structure hinged to bridge centre
MASCH FAB KAHL GMBH 25.04.77-DT-718269
*(31.05.79) *DT2718-269 C02c-01/30*

An elongated settling basin for sewage is straddled by a travelling bridge carrying a partly submerged cylindrical sludge collecting vessel which moves with the bridge and can be revolved. A raking plough scrapes along the bottom and a suction pipe passes the sludge into the collecting vessel. A pump inside the latter raises the sludge to the top of the bridge and through a duct to a channel alongside the basin.

This ensures a sludge suction without excessive turbulence and an easily adjusted flow rate. 26.4.77 as 718269 (5pp39).

SAAR- ★ D15 42492B/23 ★DS 2753-537
Thermal sewage sludge treatment - utilising thermal energy from sludge oxidn. for thickening before oxidn.
SAARBERG-FERNWARME 01.12.77-DT-753537
(31.05.79) C02c-03

Sewage and other sludge with a content of combustible matter is subjected to oxidn. at higher pressure and temp. The gas/vapour mixt. produced from the sludge during the oxidn. is used to thicken the sludge by indirect heat exchange prior to the oxidn. The accruing phases are extracted and processed separately.

This utilises the energy released by the oxidn. and saves the use of external energy. The salts dissolved in the raw sludge are retained in the residual liquor of the dewatered sludge. 1.12.77 as 753537 (4pp39).

PASE ★ D15 42502B/23 ★DS
Bar screen cleaning device - with coupling on brake device
out rake
PASSAVANTW MICHELBACHER 31.10.78-DT-847314
J01 Q42 (31.05.79) C02c-01/22 E02b-05/08 E03f-05/14

A bar screen cleaning device includes a carriage w
hinged rake which can be moved up and down along
screen by a rope drive. A separate rope for the rak
attached to a drum with a slipping clutch which coup
to a brake device. The braking force exceeds the fi
needed to keep the rake disengaged only at a normal
ing speed. At a lower speed it lies below that figure

This bar screen cleaning device combines a high
ional reliability with a min. of operational costs.
31.10.78 as 847314 (5pp39).

ROTH- ★ D15 42509B/23 ★DT 2
Small size sewage clarification tank - with paddle mixer and
preceding activated sludge section
METALL ROTH KG 23.11.77-DT-752190
(31.05.79) C02c-01/12

A sewage clarification plant for individual dwellings
des an activated sludge section which is preceded by
-arate inlet chamber. The latter communicates at t
bottom with the aeration section and includes both a
forated compressed air pipe for aeration and a paddl
mixer for disintegration.

This has a steadying effect on the action of the ae
section and prevents its disturbance by a sudden inru
e.g. when a W.C. is flushed, by breaking up the exc
23.11.77 as 752190 (19pp39)

COPE- ★ D15 42515B/23 ★DT 27
Separator for settling suspended solids in liquids - has se
parallel plates mounted in bundle
COPEF TRAITEMENT EA 23.11.77-DT-752296
J01 (31.05.79) B01d-21

Liquids charged with suspended solids are clarified
cantation process. The liquid is fed along a flow pas
which consists of a series of parallel passages of rec
ular cross section formed from flat plates.

These plates are formed into a bundle mounted at
angle to the horizontal. Solids deposit on the upper
of each plate and migrate down the plate against the u
wards flow of liquid. The separator can have two se
plates on a common axis inclined to the horizontal wi
a common housing, each set being inclined at a differ
angle to the horizontal in the plane at 90° to the main

Gives more rapid decantation than on known settli
plants. 23.11.77 as 752296 (1053)

SICK- ★ D15 42544B/23 ★DT 27
Halogen concentration control - by voltage difference be
electrodes controlling dispenser through comparator
SICK O KG 24.11.77-DT-752538
J04 R16 R26 (31.05.79) C02b-01/36 G01n-27/58 G05d-21/

The halogen concentration in liquid, e.g. in the chlor
water for swimming baths is measured and controlled
electrodes, made of a metal of group Ib and VIIIb of t
periodic table. High-ohm resistors between voltage
sources and electrodes are high enough to keep the cu
between the electrodes constant. A voltage differenti
amplifier is inserted between electrodes, display unit
chlorine dispenser.

This results in a linear connection between measu
quantity and halogen concentration. The system is si
and easy to operate. It has a long service life. 24.11.
as 752538 (17pp39)

MITT- ★ D15 42557B/23 ★DT 275
Water collection from air humidity - by reversible air flow thr
cold storage unit and absorber stack
MITTEX ANST 25.11.77-DT-752748
J01 (31.05.79) B01d-05 B01d-53/02 C02b-01/04

Water is collected from air humidity by using a dark-
coloured substance as an absorbent of solar rays to he
the air passing through, and/or by using reflectors. T
temperature of the air passing through the absorbent i
thereby kept at night time within the adsorption range
in the day time within the desorption range.

mid air under climatic condition where it would be im-
ssible or economically not feasible by conventional
ethods. 25.11.77 as 752748 (34pp39)

LD/ ★ D15 42613B/23 ★DT 2753-311

a water desalination - with fresh water recovery for irrigation rposes

BALDUS O G 30.11.77-DT-753311

P13 (31.05.79) A01g-25 C02b-01/06

system of irrigating agricultural areas with desalinated awater uses buried pipes which extend from a seawater eservoir to a crystallisation basin. Hot ambient air is rawn into a vertical shaft of concentric plastic foil tubes, ispended from a balloon, enriched with moisture by a ater spray and passed in the pipes to the crystallisation asin. Water vapour condenses on the outside of the porus tubes and irrigates the soil.

This produces salt by crystallisation in open basin but oes not waste the evaporated water. It is used for soil rigation instead. 30.11.77 as 753311 (35pp39)

OBM ★ D15 42638B/23 ★DT 2821-572

eactive anode preventing corrosion of copper alloys - and ydrogen absorption by titanium alloys, in appts. treating hot sea vater

KOBE STEEL KK 05.04.78-JA-040006 (28.11.77-JA-143128)

M14 (M26 M27) (31.05.79) C23f-13

he Cu and Ti components are both made cathodes to which potential of -0.5 to -0.65 V is applied w.r.t. a satd. alomel electrode. The anode pref. contains min. 1% Ni, sp. 2-95% Ni, the rest being Fe. The anode contains esp. -95% Ni and 30% max., esp. 20% max. of Mo, Si, Mn nd/or Al, the rest being Fe.

Another pref. anode contains 2-95% Ni, and 10% max., esp. 2% max. Cu, Sn, Ti, V and/or Nb. Numerous other anode compsns. are given, e.g. 5% Cr, rest Fe, or pure Cu. The pref. appts. contains Ti alloy tubes located in Cu alloy tube plates; and the Ti tubes pass through perforated plates which restrict the vibration of the tubes.

Esp. in the desalination of seawater, which is boiled and condensed to obtain distilled water.

The seawater is fed through tube plates made of a Cu alloy, and through Ti alloy tubes to a boiler converting the seawater to steam which then condenses on tubes to form a distilled water. Tubes are located in perforated plates inside a vessel, the plates restricting the vibration of the tubes.

The vessel and plates are pref. made of an Fe-Ni alloy contg. min. 1% Ni. Plates form a short circuit with the cathodes and the plates can be used as the reactive anode. 17.5.78 as 821572 (44pp1144)

UNTC ★ D15 42680B/23 ★DT 2850-785

Salt water, e.g. sea water desalination - to recover drinking water, salt, potassium chloride, bromine, sodium sulphate, calcium and magnesium cpds.

ECODYNE CORP 25.11.77-US-854811

E37 (31.05.79) C01d-03/06 C01d-05/10 C01f-05/08 C01f-11/06 C01g-01 C02b-01/23

Chemicals are recovered from salt water by a multi-step process comprising: (A) converting sulphates to Na_2SO_4, pptg and sepg. Mg and Ca contents; (B) mixing this 1st soln. obtd. with recycled NaCl and (C) crystallising NaCl out of the more highly conc. NaCl soln. obtd. and sepg. the crystals. (D) Br_2 is expelled from the crystallisation mother liquor. (E) NaCl and Na_2SO_4 are crystallised out of the stripped soln. (F) The 2 crystal types are sepd. from the NaCl- and Na_2SO_4-contg. crystal slurry and the NaCl crystals are mixed with the soln. from step (A). (G) The remaining sulphates are sepd. from the mother liquor of (F) and (H) NaCl is crystallised from the soln. obtd. and the crystals are sepd. (I) The NaCl crystals obtd. are mixed with the soln. from (A) and (J) KCl is crystallised out of the soln. from (H) and the KCl crystals are sepd.

Process can be used for drinking water prepn. by large scale sea water desalination, with simultaneous prodn. of NaCl, KCl, Na_2SO_4, Ca- and Mg cpds. 2230 t/day 6% salt soln. from sea water desalination yielded, per day: 100 t 50% NaOH soln., 64 t 32% HCl, 43.5 t Cl_2, 13 t Na_2SO_4, 15 t NaCl, 9 t MgO, 3 t KCl, 2 t CaO, 1 t H_2, 0.15 t Br_2
850785 (24pp200)

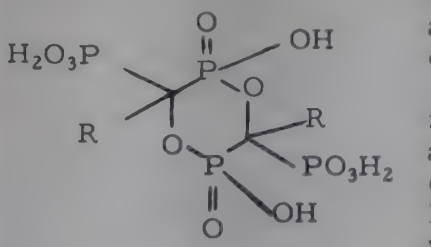
ALBR ★ D15 42690B/23 ★DT 2850-925

Inhibiting boiler scale formation or metal corrosion - e.g. in sea water evapn. by adding cyclic dimer of hydroxy-di:phosphonic acid

ALBRIGHT & WILSON LTD 25.11.77-GB-049114

H01 M14 (31.05.79) C02b-05/06 C23f-11/16

Formation of deposits, esp. boiler scale, or corrosion of metal surfaces in water conduits or plant is inhibited by adding <500 ppm of a cyclic dimer of a hydroxy-diphosphonic acid. The dimer has formula (I)



(where R is a 1-20C alkyl, aryl, aralkyl or aliphatic ether gp., esp. Me).

(I) are esp. useful for treating (i) sea-water fed to evaporators for drinking water prodn. on ships, desert coats or islands, partic. chlorinated sea-water and sea-water subjected to continuous chlorination, and (ii) water injected into oil wells during sec. oil recovery, to inhibit the formation of Ba- or Ca-contg. deposits. 24.11.78 as 850925 (19pp200)

JEAN/ ★ D15 42736B/23 ★FR 2401-694

Appts. for incorporating liq. or gaseous additives in fluid media - comprises turbine or centrifugal mixer, used for prodn. of dyes, paints, foodstuffs etc.

JEANMOUGIN M 02.09.77-FR-027036

J02 (D14) (04.04.79) B01f-05/16

The appts. comprises a type of turbine or centrifugal mixer, with two-opposed inlets sepd. by a perforated plate allowing the passage of the lighter fluid towards the compartment contg. the heavier fluid. This makes it possible to use the greatest depression zone to ensure good mixing. Variations to the appts. will be made depending on the physical state of the additive, i.e. whether it is liq. or gaseous.

The appts. can be used for the deodorisation and purification by oxidation of animal wastes and waste water, for the incorporation of additives in the chemical industry, the prodn. of dyes, glues, paints and homogenised foodstuffs for human and animal consumption. The appts. conveys the additive progressively into the mixing chamber of the turbine. 2.9.77 as 027036 (6pp1330)

KYOK- ★ D15 42776B/23 ★GB 1546-992

Removal of suspended solids from waste water - by rapid agitation with air, coagulant, and flocculant followed by slow agitation then sepn.

KYOKUTO FATTY-ACID 03.10.77-GB-040899

(06.06.79) C02c-05/02

Treatment of waste H_2O is described: (a) a mixt. of the H_2O, a solids coagulant (I), a gas (II) for collecting flocs, and a flocculant (III) to aid the growth of the flocs is rapidly agitated in a 1st zone closed to the atmos.; (b) mixt. is then transferred to a 2nd zone and agitated slowly; (c) mixt. is finally transferred to a 3rd zone where the flocs are sepd. from the H_2O.

Effective method treats H_2O using smaller appts. than in known processes, and does not produce effensive smells. Method is suitable for use with a variety of industrial waste waters. 3.10.77 as 04899 (5pp478)

USDC D15 64819Y/36 =GB 1547-033

Highly water absorbent compsn. - comprising a dried, saponified graft copolymer of acrylonitrile and a flour or meal

US SEC OF COMMERCE (USDA) 26.07.76-US-708792

*A97 G02 (A11 A14 D16) (06.06.79) *US4045-387 C08f-08/12*

A water-insoluble, aq. fluid-absorbing compsn. is prepd. by graft polymerising acrylonitrile or methacrylonitrile onto a starch-contg. substrate to form a starch-contg. substrate-poly(meth)acrylonitrile (SCS-PAN) graft copolymer; saponifying the graft copolymer to form a water-soluble saponified graft copolymer (SCS-HPAN); and drying the prod. obtd. to render SCS-HPAN water-insoluble.

The starch-contg. substrate is flour or meal, and the wt. ratio of the substrate to (meth)acrylonitrile is 75:25 to 25:75. Saponification is made in an aq. slurry with an alkali in amts. such that the molar ratio of alkali to the acrylonitrile repeating unit of SCS-PAN graft copolymer is 0.1-7:1. Drying of water-soluble SCS-HPAN is to moisture level of 1-15 wt. %.

Prod. is able to absorb $\leqslant$3000 times its wt. of deionised water and proportionately large amts. of other aq. fluids. 24. 6. 77 as 026672 (7pp931)

SASA- D15 59448Y/34 =GB 1547-074
Transportable double-action vaporiser for distilling sea water - has steam injecting second stage vapour into first stage
SASAKURA ENG CO 20.04.76-JA-U49639
*J01 (06.06.79) *BE-853-754 B01d-01/26*

A double effect evaporator comprises a casing in each effect; liq. feed spray in the upper part of the casing; heat exchange tube bundle below the spray and horizontally extending into an evaporation chamber; and a chamber for conc. liq. collection.

The evaporator also comprises a steam ejector outside the effects. The tubes of the first effect are perpendicular to those of the second. A suction port of the ejector is linked to the evaporation chamber of the first effect while the discharge port is linked with the second effect inlet header. The second effect evaporation chamber is connected, by a pipe, to the first effect inlet header,

The device is adapted to meet emergency demands for distilled water in local limited thirsty areas. 19. 4. 77 as 016194 (4pp976)

DHVR- D15 19700A/11 =GB 1547-115
Mixer for a gas and a fluid, esp. sewage - has a cowl preventing splashing, noise and stench
DHV RAADGEVEND 22.10.76-NL-011701
*(06.06.79) *BE-859-409 B01f-03/04*

Sewage aeration plant comprises a surface aerator rotating about a vertical axis, a drive and a cap placed over the aerator with a downward wall ending at or below the liquid surface, the wall having at least one air inlet opening.

The opening is pref. adjustable and of diameter 0.01-0.1 times the aerator diameter. The cap is pref. vertically adjustable and has a horizontal top 1-2 times the aerator diameter, and a side wall including an angle of 30-90° with the horizontal. The spacing between cap top and aerator top is pref. at least half the aerator diameter. The arrangement reduces splashing, odour and noise. 14. 10. 77 as 042902 (3pp1358)

ICIL ★ D15 42784B/23 ★GB 1547-177
Treatment of sludge resulting from waste fermentation - including e.g. single cell protein or starch wastes, comprises keeping sludge alkaline so at least some microbial cells are lysed
IMPERIAL CHEM INDS LTD 13.06.75-GB-025379
(D16) (06.06.79) C02c-03

Treatment of an aq. sludge contg. microbial cells (I) resulting from the fermentation of single cell protein waste or starch waste comprises keeping it at pH $\nless$10/$\nless$60° for 1-24 hr. so that at least some of (I) are lysed and the prods. pass into soln.

Amt. of sludge for final disposal is greatly reduced or even eliminated. 13. 6. 75 as 025379 (3pp478)

HITA D15 22187Y/13 =GB 1547-220
Microbiological industrial wastes treatment - invertical tank with aerator, diffuser and disperser rings for local circulation flows
HITACHI KK 10.09.75-JA-108889
*(06.06.79) *DT2640-859 C02c-01/06*

Apparatus for biological treatment of waste water comprises an aeration tank at least 3.5 m. high with waste water and activated sludge feed to the top and air supply to the bottom, an air disperser producing fine bubbles, and an aerated water discharge from the tank upper part.

The disperser includes an upward wall to give a partial circulating stream and an overall circulation upwardly in the tank centre and downwardly adjacent the tank wall. Passage of air upwardly through the wall is impeded to cause dispersion, pref. by a perforated plate at the wall upper end. 27. 8. 76 as 035816 (7pp1358)

CRAG/ ★ D15 42793B/23 ★GB 2008-426
Filter for sepg. liq. from slurry e.g. sewage - has narrowing outlet chambers through which slurry is squeezed towards solids outlet
CRAGGS T A 22.11.78-GB-045607 (23.08.77-GB-035232)
J01 (06.06.79) B01d-33/22

The filter comprises an inlet chamber into which slurry liq. outlet apertures covered by a filter medium throug which liq. drains. Slurry is forced from the inlet cham to one or more outlet chamber(s) which decrease in cro sectional size in the direction of flow causing the slurry be "squeezed". The outlet chamber(s) are intermittent brought into register with a solids outlet.

Used also for extracting precipitate from a liq. Syst achieves a more rapid sepn. of liq. than filter presses which are conventionally used to treat sewage slurry. 22. 11. 78 as 045607 (9pp67)

RUTH- ★ D15 42805B/23 ★GB 2008-
Refuse and sewage slurry composter - with controllable air flow r and direction through horizontal rotatable drum
RUTHNER INDAN-LAGEN 24.11.77-OE-008433
(06.06.79) C05f-09/04

The composter comprises a horizontal rotating drum fed through a fixed front wall with discharge through a fixed rear wall. Oxygen-contg. gas is fed through one wall a extracted through the other with the gas flow direction a rate being adjustable.

There is pref. a gas pipeline with a regulator at each end of the drum and the regulators are connectable to a blower for flow in either direction. Temp. in the drum pref. adjustable and extracted gas can be recycled. 23. 11. 78 as 045703 (4pp1358)

PALF/ ★ D15 B/23 ★HU H002-4
Soda syphon with improved distributor
PALFI G 28.09.77-HU-PA1294
(28.05.79) C02d-01/02

VIZU- ★ D15 B/23 ★HU T016-5
Treatment of aq. effluents - including homogenisation effected aeration
VIZUGYI TERVEZO VAL 05.03.75-HU-BA3222
(28.05.79) C02c-01/10

JAOR ★ D15 42827B/23 ★J5 4039-3
Mixing waste acidic and alkaline solns. - with outlet for alkali soln. in centre of passage for acidic soln.
JAPAN ORGANO KK (NIHA) 13.07.77-JA-082887
E33 (26.03.79) C02c-05/02

In a process for mixing waste acidic soln. (I) contg. alka ine earth metal ions, i.e. Ca or Mg ions, with waste all aline soln. (II) contg. (bi)carbonate or silicate ions to ef ect neutralisation, the improvement comprises opening a jet type outlet for (II) in the centre of a passage for (I) in the direction of flow soln., thereby surrounding the flow (II) with the flow of (I). The total flow is passed through narrow passage to effect rapid mixing, thereby adjusting the pH of the resulting mixed soln. to 4-6. The adjusted soln. is stripped with air in a stripping tower to remove free CO_2.

Both waste solns. (I) and (II) are thus neutralised with out causing pptn. of $CaCO_3$ and Ca silicate. 13. 7. 77 as 082887 (7pp51)

FUJI- ★ D15 42900B/23 ★J5 4051-9
Continuous redn. of hexa-valent chromium - using ferrous ion specified pH, giving a ppte. of tri:valent chromium hydroxide
FUJI KASUI KOGYO KK 03.10.77-JA-117951
E31 (24.04.79) C02c-05/02

Hexavalent chromium (I) is continuously reduced with fer rous ion (II), which is fed into a soln. (III) contg. (I). The pH of (III) should be adjusted to 4.8-8.5, (5.5-7.2) and the flow rate of (II) should be controlled so that oxidation-redn. potential in the system is adjusted to -50 to -150 mV, (-50 to -100mV). The inventors had developed the method, in that (I) is treated by (II). However, in this method, a large excess of (II) must be used for complte redn. of (I).

In the present method, (I)can be reduced completely by a theoretical amt. of (II), instead of using a large excess of (II). (I) is reduced to 3-valent chromium and then precipitates as chromium hydroxide. 3.10.77 as 117951 (3pp42)

AS ★ D15 42907B/23 ★J5 4051-981
ration of waste water - using a filter membrane from which the
e is removed using ultrasonic energy
YUASA BATTERY CO KK 03.10.77-JA-119144
J01 (24.04.79) B01d-13

ater is supplied from an underground water tank through valve into a filter. The water is filtered through a filter embrane of average hole dia. $<$ 5 µ and the filtered ater is introduced from the filter through a valve to a tered water tank.

An ultrasonic wave generator is attached to the outer linder of the filter, so that the cake adhered to the filt- membrane is washed and cleaned with the underground ater while the ultrasonic wave is applied to the cake. he washed water is drained off through a valve to a drain ank.

The cake may be easily removed from the filter mem- rane to increase the life of the filter membrane and to rovide precise and inexpensive filtration. 3.10.77 as 19144 (3pp35)

OBM ★ D15 42908B/23 ★J5 4051-982
esalination of sea water - by filtration through a filter or screen
nd a tubular semipermeable membrane
KOBE STEEL KK 01.10.77-JA-118367
J01 (24.04.79) B01d-13 B01d-31

ea water (I) is converted to fresh water (II) by (1) filtrat- on of (I) through a filter or screen of mesh 20-300 µ and 2) filtration of (I) through a tubular semi-permeable mem- rane (III).

The pretreatment of (I) before the filtration is simpli- ied. High purity (II) can be recovered without increase in running costs. As the pretreatment of (I) can be carried out rapidly, the life-time of (III) can be prolonged even if t is used for high temp. (I). Clogging of (III) with solid particles is reduced.

The pH of (I) is adjusted to 5-6.7 before step (1). (II) obtd. by the step (2) may be filtered through a spiral or hollow fibre semi-permeable membrane. The surface of (III) can be washed with elastic material and solid particles accumulated on it can be easily removed. In step (2) having $\geqslant$ 2 stage of (III), the concentrate in the first half-stage is discarded to the sea, the filtrate in the first half stage is filtered through (III) in the latter half stage, and the concentrate in the latter half stage is mixed with raw sea water and treated in the first half stage. 1.10.77 as 118367 (5pp42)

WASE- ★ D15 42913B/23 ★J5 4051-988
Adsorbent prodn. from water purificn. plant waste sludge - by heat activation to remove water
WASEDA SETTLING KK 03.10.77-JA-117932
(24.04.79) B01d-15 B01d-53/02

Prodn. of an adsorbent (I) from sludge (II) exhausted from water purification plant, comprises heat-activationof (I) at 160-200°C. (II) contains 40-50% of SiO_2 and 20-30% of Al_2O_3 and is composed of cpds. which form a strong gel. The adsorption-activity of (I) is lower than that of active carbon and activated clay but higher than that of zeolite and allophane in the market.

When (II) is heated, free water in (II) evaporates at $\leqslant$ 110°C, water condensed in capillary pores is dehydrated at 120-150°C and bound water is removed at 160-200°C. For prepn. of (I) having high activity, (II) should be heat-ed at 10°C for 2 hrs. or at 200°C for 1 hr. (II) may be moulded after removal of water or mixing with a thicken- 3.10.77 as 117932 (2pp42)
ing agent, such as bentonite.

AGEN ★ D15 42914B/23 ★J5 4051-989
Activating magnesia water treatment agent - by pre-adjusting pH of alkaline waste water
AGENCY OF IND SCI TECH (HOSO SUMI-) 01.10.77-JA-118496
E33 (24.04.79) B01d-15 C02c-05/02

The pH of alkaline waste water to be treated with the magnesia water treatment agents, of pH $\geqslant$ 9.5 is adjusted so as to have a pH of 4-9 (6-8).

Activity of the agents (e.g. baked magnesia, magnesia-alumina mixt. etc.) is increased and deterioration is prevented. 1.10.77 as 118496 (4pp55)

MITC ★ D15 43087B/23 ★J5 4052-68
Micro- or ultrafiltration polyolefin membrane mfr. - for sepn.
bacteria from beer and drinking water, dust from cosmet
emulsions, dust and bacteria from air and water, and wate
treatment
MITSUI PETROCHEM IND KK 04.10.77-JA-118632
A88 J01 (A17 D16 D21) (25.04.79) B01d-13

The membrane is mfd. from a soln. of (halogenated) cycl ic hydrocarbon of a b.pt. $>$ 110°C in which a high mol. w polyolefin of intrinsic viscosity $>$ 1.5 (measured in deca in at 135°C) is dissolved at $>$80°C, followed by coagulation of the film cast on a supporter, e.g. in smooth flat plate of metal, glass, plastic, etc. in a coagulating agent e.g. alcohol, ether, ketone, etc.

The filter membrane can be safely stored, either in water or in a completely dry state. Pref. polyolefin is polyethylene, polypropylene, etc. 4.10.77 as 118632 (3p

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HOKK- ★ D15 43132B/23 ★J5 4052-86
Treating Stephen's process waste water - by culturing wit
anaerobic bacteria and adding untreated waste water
HOKKAIDO TOGYO KK 03.10.77-JA-117864
(D17) (25.04.79) C02c-01/14

Waste water discharged from a sugar recovery process using the Stephen's method in the beet sugar mfg. industr is treated by first culturing after being regulated to pH 7. -8.5 with sulphuric acid, with an anaerobic bacteria, e.g lactic acid bacteria, butyric acid bacteria or acetic acid bacteria, including Clostiridium, Proteus, Pseudomonas, Bacillus, Streptococcus and Escherichia, at 15-60°C for 6 days. The Stephen's process waste water is charged in the bacteria-cultured Stephen's process waste water to treat it before methane fermentation i.e., at 15-60°C and an oxidn.-redn. potential of -100 to -200 mV.

Use of specific neutralisers is eliminated since the de-compsn. prods. e.g., lower fatty acids, organic acids, carbonic acid, etc. in the Stephen's process waste water take part in neutralisation. 3.10.77 as 117864 (4pp117)

AGEN ★ D15 43133B/23 ★J5 4052-86
Waste water treatment to remove COD, BOD and colourin
components - by treatment with inorganic adsorbent an
microorganisms
AGENCY OF IND SCI TECH 01.10.77-JA-118497
F06 (F09) (25.04.79) C02c-01/02

A method of treating various kinds of waste waters for eff ectively removing colouring materials and COD and BOD components present comprises (a) mixing the water with an inorganic adsorbent, e.g., magnesia obtd. from the baking of a magnesium salt at 500-600°C, a mixt. of the magnesia with a metal oxide, e.g., alumina, kaolin, ferr ic oxide, calcium oxide, etc., or a baked clay mineral, t adsorb colouring components and COD components; (b) subjecting the mixt. from (a) to sedimentation to separate the adsorbent slurry with colouring materials and COD components; (c) discharging the supernatant liquor in (b) to theoutside; and (d) contacting the supernatant liquor from the (c) with microorganisms to remove the COD com ponents. The effluent from (d) is again brought into contact with the inorganic adsorbent and also the sludge from the (d), after being mixed with the adsorbent slurry from (b) is dewatered and then baked.

Used esp. for treating pulp mill waste water, fermentation waste water, starch waste water, dyeing waste wate sewage, etc. 1.10.77 as 118497 (13pp117)

HAYA/ ★ D15 43134B/23 ★J5 4052-865
Treating waste combustion gas wash water from incineration of
plastic - by adding a substance which forms calcium chloride
HAYAMI K 04.10.77-JA-119317
J01 (25.04.79) B01d-53/34 C02c-05/02

In the treatment of waste water from smoke-washing systems of wastes incineration plants for removing harmful substances from plastics, waste water is introduced into a storage tank to remove insolubles substances, and sent to a treatment tank where the waste water contg. hydrochlori acidis mixed with shell fossile or coral limestone powder to form calcium chloride which coagulates residual organics and heavy metals present in the waste water, with additional calcium chloride if its amt. is insufficient; and the treated liquor contg. flocs of harmful substances is regulated to pH $\geqslant$ 10 with slaked lime in a stabilisation tank and fed to a sedimentation tank where the flocs are coagulated and removed by the addn. of a flocculant, e.g. aluminium sulphate, etc.

The process has only one stage uses a reduced amt. of caustic alkali, and reduces the amt. of sludge formed to 1/3. 4.10.77 as 119317 (3pp117)

KOBA/ ★ D15 43282B/23 ★J5 4053-668

Removing smell from exhaust gas from night soil - includes introducing gas to liq. treating bath in bottom of sealed treatment chamber and passing through liq. spray screen

KOBAYASHI K 07.10.77-JA-120067 (00.00.74-JA-066086)
Q42 (27.04.79) B01d-53/18 E03f-07/10

Exhaust gas from night soil collected in a vacuum tank is treated to remove the smelly components from the gas before it is ejected to the atmosphere, by introducing the gas into a liquid treatment bath formed in the bottom of a sealed treating chamber, and then passing the gas through a liquid spray screen formed by an upwardly directed nozzle disposed above the bath.

As the gas rises in the form of bubbles through the liq. bath, a portion of the smelly component carried by the gas is removed. The remaining component is removed from the gas by contact with atomised liq. delivered from the nozzle. 7.10.77 as 120067 (4pp47)

MITQ ★ D15 43325B/23 ★J5 4054-095

Determining concn. of hypochlorite in soln. - by pH adjustment and UV absorbence measurement, used for testing waste water

MITSUBISHI ELECTRIC CORP 06.10.77-JA-120328
E34 J04 R16 (J01) (27.04.79) G01n-21/02 G01n-33/18

Method comprises adding an alkali to a soln. contg. hypochlorite to adjust the pH to $\geqslant$ 9, determining the absorbance of UV rays of 270-330 mμ of the alkaline soln., and calculating the concn. of hypochlorite of the soln. from the concn. of hypochlorite corresponding to the absorbance

Alternatively, the absorbance of the alkaline soln. is measured as above, an excess of reducing agent (soln. of sodium thiosulphate or sodium sulphite) is added to the soln. and the absorbance is measured in the same way, and the soln. of hypochlorite of the soln. is calculated from the soln. of hypochlorite corresponding to the difference in the two absorbances measured.

The concn. of hypochlorite in soln. can be rapidly and precisely determined continuously or intermittently with simple pretreatment of a sample. The method is useful for determining hypochlorite in treated water or wash water in exhaust waser treating plant using hypochlorite or wet process gas treating plant using water contg. hypochlorite as wash water. 6.10.77 as 120328 (6pp50)

EBAR D15 81793X/44 =J7 9010-937

Treatment of solns containing organic acids and ammonia - by reverse osmosis at differing pH values

EBARA INFILCO KK 06.11.73-JA-124834
*E35 J01 (10.05.79) *J50075-987 +B01d-13 C02b-01/82*

Solns. contg. organic acids and NH_3 are treated by reverse osmosis first at pH $<$ 9.0 and then at pH $>$ 6.0. The liq. diffused from one reverse osmosis step is recycled and used in the next reverse osmosis step. The organic acid in the soln. is removed and conc. by reverse osmosis at the alkaline pH, whereas NH_3 is removed and conc. at a weakly alkaline to acidic pH.

In an example, a soln. pH 9.5 with BOD 2100 and NH_3-N 1500 mg/l. was treated in a reverse osmosis device having a KP-90 membrane at 25°, 30 kg/cm^2. The vol. of the soln. not passing through the membrane is $^1/_{10}$ as great as that of the feed soln. and the diffusate had BOD 244, NH_3-N 360 mg/l., and pH 10.3. The diffusate was mixed with H_2SO_4 to adjust the pH to 7.5 and treated again by reverse osmosis under similar conditions. A concd. soln. (pH 7.0) and or diffusate with BOD 66.5 and NH_3-N 37 mg/l., and pH 8.0 were obtd. 6.11.73 as 124834 B01d-13/00;C02b-1/82 (10.5.79) EBARA-INFILCO KK (3pp) (J50075987)

MITU D15 35183U/25 =J7 9010-

Chelate-forming amino acid addition polymers - for remov heavy metal impurities from aq media

MITSUBISHI CHEM IND KK (MITS) 30.11.71-JA-096420
*A26 (11.05.79) *DT2258-535 +B01j-01/08 C08g-73*

New polymers forming with heavy metals water-insolub complexes are produced by reacting a cpd. contg. $\geqslant$ 2 acryloyl gp. (e.g. methylene-bis-acrylamide) with an amino acid contg. $\geqslant$ 2 active H atoms attached to N atom of the amino gp. (e.g. glycine).

These polymers are used for selective removal of he metal impurities from aq. media, esp. from aq. effluen from mining and chemical industry. 30.11.71 as 096420 C08g-73/00;B01j-1/08 (11.5.79) MITSUBISHI CHEMICA INDS. LTD. (4pp)(J48060200)

MITU D15 35183U/25 =J7 9011-0

Chelate-forming amino acid addition polymers - for removi heavy metal impurities from aq media

MITSUBISHI CHEM IND KK (MITS) 08.12.71-JA-102844
*A26 (11.05.79) *DT2258-535 +B01j-01/08 C08g-73*

Acryloyl cpds. were polymerised with amino acids to gi H_2O-insol. chelate-forming resins useful for treatments waste water contg. heavy metals. In an example, 3.2 kg hexahydro-1,3,5-triacryloyl-S-triazine and 11.7 g. MeC were mixed with glycine 1.47, NaOH 0.78, and H_2O 3.14 and reacted for 35-45 min. at 40° to give 5.01 g, dry sol id, which was deep-blue-coloured by 1% aq. $CaSO_4$. 18.12.71 as 102844 C08g-73/00;B01j-1/08 (11.5.79) MITSUBISHI CHEMICAL INDUSTRY CO. LTD. (4pp) (J48067400)

ASAG D15 38637X/21 =J7 9011-1

Recovering acids and metals from waste liq. contg. acids and salts using diffusion dialysis tank and diaphragm electrolysis tank cont anion exchange diaphragms

ASAHI GLASS KK 04.10.74-JA-113772
*J03 (12.05.79) *J51040-303 C02c-05/12 +B01d-13*

Acids and metals are recovered from waste liq. using an appts comprising a diffusion dialyzing tank (1) and di phragm electrolytic tank (2). Both tanks are partitioned with anion exchange diaphragms to form a dialyzer cham ber and diffusion chamber in the tank (1) and to form a cathode chamber and anode chamber in the tank (2). In the dialyzer tank (1), a waste liq. contg. acids and their salts with metals is mixed with another waste liquid drai ed from the electrolytic tank (2) to conduct a dialysis.

A dialysate liquid and diffusion liquid both drained fro the tank (1) are fed into the cathode and anode chambers the tank (2), respectively, and electrolysed to precipitat metals at the cathode and a condensed liq. of acids is recovered from the anode chamber. 4.10.74 as 113772 B01 13/00; C02c-5/12 (12.5.79) ASAHI GLASS KK (5pp) (J51040303)

MITK D15 56324Y/32 =J7 9011-1

Absorbent mat used to remove oil from water - comprises layers lipophilic material having coarse and fine gap structure

MITSUI TOATSU CHEM INC 22.12.75-JA-151896
*J01 (12.05.79) *J52075-681 B01d-15 C02c-05/02 C09k-03/32*

The part having the rough gaps in the outside is able to ab sorb, by rapid permeation, high viscous oils into the inn part. The layer of lipophilic materials forming finer gap structure arranged in inner part cataches and keeps the oils having entered in the layer having rough gap, as the result the last catching quantity can be increased till about 4/5 of the oil having entered into the inner part of the mat at floating.

The mat is excellent in comparision with the mat constructed only of lipophilic fibre materials having rough gap structure and the mat constructed only of lipophilic materials capable of forming the finer gap structure. 22.12.75 as 151896 B01d-15/00, C02c-5/02, C09k-3/32 (12.5.79) MITSUI TOATSU CHEM INC (3pp58)(J52075681)

D15 34778X/19 =J7 9011-610

tment of waste water contg oil - by addn of cationic polymer introducing air to aggregate oil on surface of water

ION FAT & OIL KK 03.09.74-JA-100589

*A91 H05 J01 +Q73 (16.05.79) *J51034-559 C02c-05 +B01d-03 23g-07/06*

ionic polymer is added as aggregating agent to the ste water contg. oil, and air is passed in to float the oil aggregated particle on the surface of the water. A hot s of 100-400°C is applied to the particles to evaporate oil which is then burned to produce a combustion gas, cycling as the hot gas. The cationic polymer aggregat- agent is poly(acryl)amine. 3.9.74 as 100589 C02c-5/ ;B01d-3/00; C02c-5/02; F23g-7/06 (15.5.79) LION FAT OIL KK (3pp)(J51034559)

IF D15 54277W/33 =J7 9011-611

moval of impurities from aq. effluents - by coagulation glomeration and flotation promoted by electrolytically produced bbles

SWIFT & CO 01.02.74-US-438737

*A97 J01 P41 ('6.05.79) *DT2500-455 C02c-05/12*

emoval of impurities from aq. effluents by coagulation glomeration and flotation is improved in that the effluen- are passed through a tank provided with banks of elec- odes on its bottom through which electric current is ssed so that microbubbles are produced which rise to e surface and promote flotation of the agglomerated npurities. The distance between the opposite electrode smaller at the inlet end of the tank than at the outlet end that a current density gradient is created. The flocc- ation of impurities is promoted by addn. of multivalent etal ions (pref. Al^{3+} or Fe^{3+} ions) and of an acrylamide opolymer (90-50 wt.% of acrylamide or methacrylamide nd 10-50 wt.% of acrylic or methacrylic acid or salt).

Purificn. of effluents contg. emulsified oils, fats, lub- icants, proteins, esp. from edible oil or preserve fac- ories, is carried out rapidly and effectively. The current ensity and, hence, the number of microbubbles dimini- hes along the tank correspondingly to the decreasing im- urity content. 24.12.74 as 003021 (clg. 1.2.74-US- 38737) C02c-5/12 (16.5.79) SWIFT CO (6pp)(J50109167)

OAG D15 06743Y/04 =J7 9011-612

Vaste water purificn. by oxidn. - with hydrogen peroxide and errite for improved efficiency

TOA GOSEI CHEM IND LTD 06.06.75-JA-067685

*R42 (16.05.79) *J51144-060 C02c-05/04 +B01j-23/70*

Vaste water is oxidised with H_2O_2. The improvement com -prises contacting the waste water and the H_2O_2 with an in- oluble H_2O_2-decomposable solid, e.g. an ion-exchanger ubstd. with a transition metal ion and a chelating resin ound with a transition metal ion.

The insol le H_2O_2-decomposable solid used is e.g. a errite of formula:- $MO.Fe_2O_3$, (where M is Fe (II), CO II), Ni(II), Mn (II), Zn (II) and Cu (II) etc.) The oxidised prods. are easily removed. 6.6.75 as 067685 C02c-5/04, B01j-23/70 (16.5.79) TOA GOSEI CHEM IND (5pp34) (J51144060)

MITO D15 40573Y/23 =J7 9011-613

Lowering COD of waste water - by adding nitrous ion under acid conditions

MITSUBISHI HEAVY IND KK 21.10.75-JA-125912

*J01 (16.05.79) *J52051-752 C02c-05/04*

A waste water discharged from a wet-type waste gas desulphurisation appt. or denitration appts. and a wide variety of chemical plants etc. is lowered in its COD value by adding nitrous ion. The reaction mechanism is not clear, but the reaction proceeds very rapidly under acidic range conditions, esp. pH <4. The reaction is almost completed within about 5 mins.

It is found that about 70% of the initial COD is decomposed when 2-3 mmol/l. of nitrous ion is added to a waste water having the COD component of 20-30 ppm., and 40-60 % of the initial COD is decomposed even when one mmol/l. of nitrous ion is added. 21.10.75 as 125912 C02c-5/04 (16.5.79) MITSUBISHI HEAVY IND KK (3pp) (J52051752)

DOWA D15 45918Y/26 =J7 9011-614

Metal chelate complex aq. solution treatment - with powdered iron in contact with air to improve heavy metals removal

DOWA MINING KK 11.11.75-JA-134717

*(16.05.79) *J52059-951 C02c-05/02 +C02b-01/23*

A heavy metal is effectively removed from an aq. soln. contg. a heavy metal chelate complex salt by adding to the aq. soln. powdered Fe at a pH 2-8 (pref. 3-5) while vigorously agitating so as to be intimately contacted with the air.

The heavy metals are adsorbed on the powdered Fe having large specific surface area due to the fact that it is activated under vigorous agitation.

In an example, 30 g. of reduced powdered Fe is added to 2l. of an aq. soln. contg. Zn ion (30ppm) and EDTA having the pH 4.00 followed by agitation for 90 mins. and filtration to give a filtrate having the Zn content of 0.12 ppm., the Fe content of 0.94 ppm. and the pH of 6.50. 11.11.75 as 134717 C02c-5/02, C02b-1/23 (16.5.79) DOWA MINING CO LTD (3pp34)(J52059951)

DOWA D15 79900Y/45 =J7 9011-615

Heavy metal sepn. from waste water - by addn. of iron powder to water contg. heavy metal-ammonia complex

DOWA MINING KK 20.12.75-JA-152552

*(16.05.79) *J52075-855 C02c-05/02*

The method comprises directly adding iron powder to the waste water while adjusting pH of the waste water to weakly acidic or neutral (pH 3-8, pref. 4-5).

The waste water is contacted with minute air bubbles. The heavy metals (e.g. Cu, Zn, Ni, Cd etc.) are adsorbed onto the powdered Fe and pptd. simultaneously Fe^{2+} is oxidised to Fe^{3+} and pptd. as $Fe(OH)_3$. The pptn. is further accelerated by the use of a coagulant. The powdered Fe is e.g. electrolysed Fe powder, atomised Fe powder, reduced Fe powder etc

The residual metallic ion concn. in the treated filtrate is low and the filtrate is neutral. 20.12.75 as 152552 C02c-5/02 (16.5.79) DOWA MINING CO LTD (5pp) (J52075855)

KAKI/ ★ D15 43379B/23 ★J7 9011-616

Electrolytic concn. of sludge using multielectrode cell - in which electrophoresis of the sludge, breakdown of the electric double layer between the sludge and water, and heating take place

KAKIHARA M 19.03.76-JA-029351

J03 (16.05.79) C02c-05/12

A sludge is effectively concentrated by electrolysis in an electrolysing vessel in which cathodes and anodes are arranged alternatively, A voltage of 30-60 volts is applied such that a current of 100-1,000 A/m³ flows between each pair of electrodes to effect electrophoresis to the sludge and destroy the electric double layer generated on the interface between the sludge and water, and further to generate Joule's heat on the water sepd. from the sludge so as to accelerate rapidly the coagulation and the sedimentation of the sludge. 19.3.76 as 029351 C02c-5/12 (16.5.79) KAKIHARA M(3pp34)(J52113548)

PHYS= ★ D15 43421B/23 ★SU -431-122

phenol and organic cpds. removal from aq. waste soln. - by treatment with methanol and sulphuric acid, irradiation and sepn. of precipitate

PHYSICAL CHEM RES 25.01.72-SU-741031

E14 K08 (10.01.79) B01j-01/10 C02c-05/02

Waste contg. phenols or substances such as benzene, dipyridine and furan is mixed with methanol and an acid and treated with γ-radiation or accelerated electrons, followed by sepn. of the ppte. The efficiency of the oxidn. can be increased and the dose of radiation required can be reduced if the acid used is a mineral acid such as sulphuric acid

The optimum ratio of methanol to sulphuric acid is 1:2 mol./l. per mol. phenols. Using both additives, a dose of only 2 Mrad. is required, while use of methanol alone requires 20 Mrad; use of sulphuric acid alone requires 10 Mrad. The absence of additives results in a dose of even 20 Mrad being ineffective.

Bysotskaya, N.A., Zhikharev, V.S. Bul. 1/5.1.79. 25.1.72 as 741031 (2pp815)

MOGE= ★ D15 43498B/23 ★SU -618-122

Bulk filter for water purification - contains ultrasonic emitter and ramp in filtration chamber separated from inlet and collection tanks by partitions with bottom openings

MOSC GEOLOG SURVEY 06.08.76-SU-392761

(26.06.78) B01d-23/10 C02b-01

Increased efficiency of the process of purifying potable or effluent water for towns, settlements or industrial estates, and improved quality of water produced by capillary filtration in the bulk filter filled with sand (or other filtering material), are ensured by enhancement of the capillary lift of water flow by application of ultrasonic vibrations.

Thus, the filtering chamber mounted between inlet and collection tanks, and separated from them by partitions having opening at the bottom, contains ramp plate of the same height as the level of the raw water in the inlet tank. Between the ramp plate and the partition separating the filtering chamber from the inlet tank, an ultrasonic emitter is mounted.

Kostinenko, G.I. Bul. 29/5.8.78. 6.8.76 as 392761 (3pp 135)

FUJF D15 48610A/27 =US 4155-810

Biological treatment of waste liq. contg. silver and sulphur cpds. - by aerobically culturing Thiobacillus bacteria in liq.

FUJI PHOTO FILM KK 09.11.76-JA-133701

*G06 M25 (D16) (22.05.79) *J53059-254 C02c-01/02 +C07b-29/02*

Treatment of waste fixing soln. used for fixing Ag halide photographic materials and contg. ⩾ 1 Ag thiosulphate complex salt, comprises applying chemosynthetic bacteria of the Thiobacillus genus to the soln. and cultivating the bacteria aerobically. The Ag in the complex salts accumulates as Ag, Ag salts or Ag and Ag salts in the cells of the bacteria.

Pref. the bacteria are Th. thioparus, Th. novellus, Th. thiooxidans or their mixts. Process may be used for simultaneously decontaminating the soln. and concentrating and recovering the Ag. 3.11.77 as 848425 (6pp393)

RHON D15 01186A/01 =US 4155-845

Treatment of pulp mfr. waste solution

RHONE-POULENC INDUSTRIES 12.05.76-FR-015150

*A11 E33 F09 (22.05.79) *J52138-364 B01d-31 +B01d-13 D21c-11*

Treatment of soda-contg. paper mill effluents from the bleaching of paper pulp comprises (a) introducing a subcritical amt. of a flocculation-effective agent to the effluent the amt. being 2-50% of the amt. necessary for true flocculation, and (b) subjecting the effluent/agent mixt. to ultrafiltration using a membrane which is stable to a pH > 8.

Pref. the agent consists of (a) $Ca(OH)_2$ and $Al_2(SO_4)_3$; (b) $Ca(OH)_2$ and CO_2; (c) $CaCl_2$ and Na_2CO_3 or (d) Al chlorosulphate. Pref. the process further comprises addn. of a flocculation adjuvant of Na acrylate/acrylamide copolymer. 10.5.77 as 795564 (4pp924)

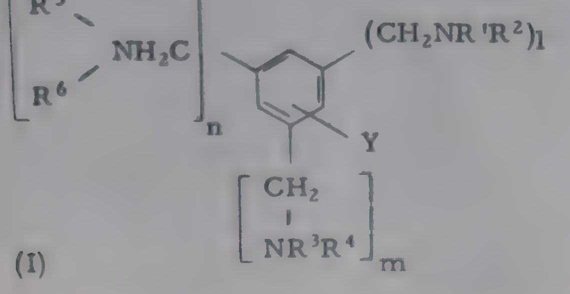
MITU D15 20258B/11 =US 4155-847

Cationic flocculant esp. for treating effluents - consists of water-soluble polycondensate of epihalohydrin and phenol, formaldehyde and amine reaction prod.

MITSUBISHI CHEM IND KK 24.08.77-JA-101208

*A91 (A21) (22.05.79) *DT2835-876 C02b-01/20 C02c-01/40 C08g-08/16 C08g-14/06*

A cationic polymer flocculant comprises a water-soluble polycondensate of an epihalohydrin and an amine (a) having the formula (I), or a mixt. of the amine (a) and ⩾ 1 amine chosen from (b) ammonia, monoalkylamines, dialkylamines, alkylenediamines, aromatic amines, polyalkylenepolyamines, and cyclic amine, the amine (a) being present in an amt. of > 50 mole % of the total of amines (a) and (b). In (a) Y is H or alkyl; R^{1-6} are each alkyl; m and n are 0-1 with m + n ⩾1.


(I)

The flocculants are useful e.g. in effluent treatment and papermaking processes. 10.8.78 as 932612 (7pp91

NIPE D15 04654A/03 =US 4155-

Oxidation of waste liquids in pressure cylinders - by heating, injection and circulation through open-ended compartments

NIPPON PETROCHEM KK 25.06.76-JA-074508

*(22.05.79) *DT2728-554 +C02b-01/34*

A wet oxidn. process for a liq. waste effluent uses a ve ical-type pressure-proof container in which a free spac is provided at each of the axial lower and upper ends an the remaining space between the axial ends is divided in ⩾ 2 spaces, ⩾1 serving as an effluent-descending spac and the other as an effluent-ascending space, by provid ⩾ 1 partition.

The process comprises introducing a liq. waste efflu and circulating the effluent through the effluent-descend space, lower free space, effluent-ascending space and per free space while oxidising the effluent with an oxidi ing gas ejected upward into the effluent-ascending space and withdrawing the oxidised effluent and used oxidising gas through an outlet provided at the top of the containe 22.6.77 as 808856 (14pp910)

SHIP/ ★ D15 43909B/23 ★US 4155-8

Reverse osmosis cell - has multi-conduit porous tube coated w semipermeable membrane

SHIPPEY F R 19.10.77-US-843481

J01 (22.05.79) B01d-31

Reverse osmosis cell for resolving a pressurised fluid tem into concentrate and permeate fluids comprises a pressure vessel having a pressurised fluid inlet at one and a concentrate fluid outlet and a permeate fluid outle at the other. An open-ended porous tube located within vessel has its inner and outer surfaces coated with a se permeable membrane and is provided with a series of c duits extending axially through the tube wall.

Fluid flows through and outside the porous tube and s vent passes through the inner and outer surfaces into th wall conduits. A fluid distributor at the downstream en of the cell (a) transfers solvent from the wall conduits the permeate outlet and (b) combines the solute inside a outside the tube for discharge through the concentrate o let.

The porous tube serves as an osmotic membrane element of high efficiency. 19.10.77 as 843481 (6pp67)

STAD ★ D15 43918B/23 ★US 4155-8

Scale inhibitors contg. phosphate partial salts - derived fro alkoxylated urea, useful in oil well (brine), cooling or boiler wa etc.

STANDARD OIL CO (IND) 22.09.77-US-835758

E11 (22.05.79) C02b-01/23

Compsns. for inhibiting alkaline earth metal sulphate an carbonate scale formation comprises water-soluble partial salts derived from a phosphoric acid ester of an alkoxylated urea prepd. by reacting 1 mole of urea with 2-2 moles of alkylene oxide.

The compsns. are esp. useful for preventing scale fo mation in oil wells and associated equipment in contact with hard-water brines. Practically 100% inhibition can be achieved at concns. as low as 10 ppm.

The alkoxylated urea is pref. prepd. by reacting 1 m of urea with 1-6 moles of ethylene oxide. This is then r acted with excess polyphosphoric acid (PPA) and the product partially neutralised with a base, e.g KOH, NaOH, NH_4OH, NH_3 or a water-soluble amine. 22.9.77 as 835758 (5pp367)

MERI ★ D15 43925B/23 ★US 4155-88

Amphoteric graft copolymers - cf xanthomonas hydrophilic colloi and n amino:alkylated acrylamide, useful as levelling agent flocculants, etc.

MERCK & CO INC 28.04.78-US-901179

A91 F06 (A11 A14 A87 FC9) (22.05.79) C081-05

New amphoteric graft copolymers of xanthomonas hydrophilic colloid and partially N-aminoalkylated acrylamide contain an amidoalkylamino function of formula CO-NH-CHR^2-NRR'. The copolymers may alternatively be in an acid addn. salt form contg. CO-NH-CHR^2-$\overset{+}{N}HR$-R'-A^- or a quat. salt form contg. CO-NH-CHR^2-NRR_1-R'-A^- where and R' are independently lower alkyl; R^2 is H, lower al- l or benzyl; R^3 is lower alkyl or benzyl; and A^- is an an- n of a strong acid.

The wt. ratio of xanthomonas hydrophilic colloid to the rylamide is 1:1-10, pref. 1:1-3 and the percentage of nidoalkylamine functions based on total available acryl- nide gps. is 30-85%, pref. 45-55%.

Used as retarding or levelling agents in dyeing textiles ch as acrylic fabrics; as flocculants or pigment retent- n aids in paper mfr.; as coagulant aids or agglomerating gents in water treatment. 28.4.78 as 901179 (5pp1390)

UM/ D15 32964Y/19 =US 4155-959

erator with water ejector entrainment - having an inner pressure amber with jets discharging through outer chamber with air

BLUM A 31.10.75-DT-548754

*(22.05.79) *DT2548-754 B01f-03/04*

An aerator comprises a housinghaving inner, outer and i termediate walls defining inner and outer annular chambers. The inner wall defines a pump-receiving opening, leading to the inner chamber, the outer chamber having a air supply.

Nozzles are coaxially arranged in the inner and outer walls, such that liq. pumped out of the inner chamber entrains air from theouter chamber and discharges as an aerated jet. The aerator may be used to aerate drain wa er, and has a simple construction. 1.11.76 as 737399 (4

See Also

D22 GB 1547001

D16 : FERMENTATION INDUSTRY

CIE ★ D16 42405B/23 ★BE -872-385

epsipeptide extract of Fusarium equiseti - used to provoke immune esponse esp. for respiratory tract infection, and as antiviral and ntimicrobial

SCIENCE UNION & CIE 30.11.77-FR-036000

B04 (29.05.79) A61k C07g C12d

biologically active substance of peptidolic nature obtained by fermentation of Fusarium equiseti cultures and ex- raction of the mycelium is claimed as new. The substance as the fundamental structure of a depsipeptide and when yd rolysed in acid medium gives N-methylvaline, N-methyl -isoleucine and N-methylallo-isoleucine. The substance comprises a mixture of four peptidolic cpds. contg. 2-5% of Cpd. A, 10-16% of Cpd. B, 32-39% of Cpd. C and 40-47% of Cpd. D. (determined by high pressure liq. phase chromato- graphy).

The substance has immuno-modulatory activity as shown by a hypersensitive response to 4-ethoxymethylene-2-phenyloxazolone and to Escherichia coli lipopolysaccharides. It causes activation of macrophages by modification of the enzymatic activity and protein content of cells. The substance also has anti-exudative and anti-oedematous activity. The substance is used to stimulate defence mechanisms esp. in the treatment of respiratory tract infections and as an antimicrobial and antiviral agent. 29.11.78 as 872385 (46pp395)

WELL ★ D16 42416B/23 ★BE -872-449

In vitro propagation of rota-viruses - by cultivation of sensitive cells in a serum-free medium containing a proteolytic enzyme

WELLCOME FOUNDATION LTD 24.12.77-GB-053906 (01.12.77-GB-050094)

B04 (30.05.79) C12k

Process for the propagation of rotavirus in vitro is characterised in that the virus is cultivated in cultures of cells sensitive to the virus in the presence of a serum-free medium, contg. a proteolytic enzyme.

Pref. the rotavirus sensitive cells are calf prim. renal cells, human MRC5 diploid cells, monkey BSC-1 renal cells, monkey LLC-MK2 renal cells or Vero cells. Pref. the cultivation is effected in a chemical support medium, using an enzyme chosen from trypsin, chymotrypsin, pancreatin, pronase, bromelain and subtilisin in a concentration of 1.0-20 ug/ml pref. 2.0-10 ug/ml for 1-3 days at 35-39°C.

Used for the prodn. of rotaviruses. The method allows prodn. of viruses which could not previously be produced in cell tissue cultures e.g. human rotavirus and gives great-ly improved yields of other rotaviruses e.g. calf rotavirus. The prodn. of the virus in large quantities allows prodn. of vaccines, immunisation etc. and makes it readily available for diagnoses, e.g. haemaglutination, complement fixation, Elisa examination, radio-immunological examination, immuno-diffusion etc. The vaccination of babies, young ani- greatly reduce death due to gastro-enterit-

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SIMP- ★ D16 42444B/23 ★BE -873-96

Mechanised germination plant for malting cereal grain esp. barley uses powered conveyors, elevators and stirrers to eliminate manu labour

SIMPSON J P & CO 21.04.78-GB-015799

(29.05.79) C12c

After the grain has been steeped in maceration tanks, it is passed to each in turn of a series of closed germinatio vessels, spending 23 hrs in each vessel. The grain is stirred either within each vessel or, pref. as it is transferred from one vessel to another.

Each vessel discharges the grain via a planetary conveyor rotating about the axis of the vessel. The final vessel in the series discharges green malt which is conveyed and elevated to a malt drying kiln.

Conveyors and elevators are employed to transfer grain from one vessel to the next as well as from the maceration section to the first of the series of vessels. 6.2.79 as 873963 (12pp448)

NORD- ★ D16 B/23 ★BR 7808-46

Evapn. of wine residues - in vat after fermentation

NORDON-IND METALURG 21.12.78-BR-008468

(22.05.79) C12f-03

TEIM- ★ D16 42474B/23 ★CH -610-73

Washing, sorting, cleaning and cutting machine for mushrooms automatically trims soiled stalks and cuts them to length

TEIMEX AG 30.06.76-CH-008398

(15.05.79) A23n-15

A machine for cleaning and grading mushrooms automatically comprises a first trough contg. water into which a charge of mushrooms is deposited. A flow set up in the water by a pump transfers them to a second trough from which they are lifted by a conveyor into a sorting mechanism. From the sorter they fall, the smallest first and the larger following, according to the size of their heads onto chutes and thence between profiled guides with endless wires.

There they are aligned with their stalks downwards wit the help of jets of water which complete the washing and are moved towards first and second cutters formed by ba saws where the soiled tips are cut off first and the stalks are then cut to length.

Replaces the intensive manual work necessary previously and which does not in any case guarantee perfect cleanliness and quality. As well as cutting off the bottom of the stalk, the machine makes it possible to grade the mushrooms on the basis of the size of their heads. 30.6. as 610734 (7pp1014)

GRIF/ D16 08021W/05 =DS 2241-690
Compost destacking and restacking machine - which takes in compost and ejects it at relatively high velocity
GRIFFIN G D 24.08.71-GB-039746
*(31.05.79) *GB1382-064 C05f-09/02*

A compost turn-over machine with a movable frame on wheels has a rotary spiked drum to pick up a compost layer, e.g. in mushroom growing establishments, and at a higher level a spiked shaft to remove the compost from the drum spikes. The spikes of the spiked drum are inclined inward in the outer rows and inclined outward in the inner rows. The spikes of the spiked shaft are at such an angle to the machine centre line that the compost is thrown by them upward, back and sideways towards the delivery end.

This improves the microbiological conditions for the newly formed compost layer. 24. 8. 72 as 241690 (12pp39).

BANE- D16 48403U/34 =DS 2306-845
Biodegrading petroleum products - with compsn contg phospho-amino-lipid and biodegradable emulsifier
BANEXI BANQUE EXPAN (BAN -) 22.02.72-FR-005894
*H04 +Q42 (31.05.79) *BE-795-310 C09k-03/32*

Oil dispersal compsn. which accelerates removal of oil prods. by biological degradation, comprises lecithin (1 pt. wt.); a nontoxic biologically degradable emulsifier (1-5 pts. wt.); water and/or nontoxic solvent which is compatible with hydrocarbons (1.7-34 pts. wt.) and aminolipoids and/or other degradable organic acids, aminoacids or fatty acids.

A prefd. lipoid deriv. is 11-amino-undecanoic acid. Pref. solvents are propyleneglycol, dipropyleneglycol and solvents obtd. from natural oil after removal of aromatic fractions. These compsns. may be diluted with water or dispersed with inert carriers (pref. mineral oxides) to obtain pastes. 12.2.73 as 306845 (4pp047).

BEHW D16 88461Y/50 =DS 2625-208
Rocking fermenter with internal mixer and external drive - for growing viruses and mammalian cells, e.g. for vaccine prodn.
BEHRINGWERKE AG 04.06.76-DT-625208
*(31.05.79) *DT2625-208 C12b-01/10*

A fermenter, e.g. for use in the prodn. of foot-and-mouth disease vaccines with an antigen content higher than required by the governmental guide lines, consists of a cylindrical vessel with a lid on which a cross beam mixer shaft is suspended from a flexible hose. The vessel is supported by trunnions in a frame and can be reciprocated by a motor-driven cam mechanism.

This fermenter requires no seals which may contaminate the vaccine by abraded particles. 4. 6. 76 as 625208 (3pp39).

BATT D16 02028B/02 =DS 2726-313
In vitro biosynthesis of hormones, esp insulin - by cultivating cells sepd. from culture medium by semipermeable membrane
BATTELLE-INSTITUT 10.06.77-DT-726313
*B04 (31.05.79) *DT2726-313 C12d-13/06*

Process for in vitro biosynthesis of hormones, esp. insulin, comprises in vitro propagation of appropriate cells (obtd. from organisms or tissues of animal or human origin) in suitable environments, followed by extraction of the hormones from the nutrient medium or from the cells.

In partic., the cells are propagated in a continuous flow system in which the cells are sepd. from the culture medium by a semipermeable membrane. 10. 6. 77 as 726313 (11pp047).

HARS- ★ D16 42493B/23 ★DS 2758-588
Ceramic or stoneware containers, esp. fermentation pots - made on extrusion press using removable mandrel
STEINZEUGW HARSCH 29.12.77-DT-758588
L02 P64 (31.05.79) B28b-03/20

An extrusion press uses a ring die contg. a core to form the top rim of the pot over a ring-shaped mandrel. The mandrel is then removed, and the side wall of the pot is extruded to the desired length and cut off, followed by attaching a base to the pot. In the pref. process, the ring mandrel is used to form a recess in the rim of the pot, the recess being subsequently employed as a water seal; and hand grips are also formed on the periphery of the rim.

The pref. extrusion press uses a ring die with a profiled bore contg. a core with its end tapering inwards; and the ring mandrel is located between the die and the core. Process is inexpensive. 29. 12. 77 as 758588 (7pp1144).

STRA- ★ D16 42522B/23 ★DT 2752-3
2,5-Di:hydro-2,4-di:methyl-5-oxo-furan-2-acetic acid prepn. - bacterial co-oxidation of 3,5-di:methyl benzoate in mineral s nutrient medium contg. di:chloro-benzoate
GES STRAHLEN-U UM W 24.11.77-DT-752379 (00.00.75- 548454)
B03 E13 (31.05.79) C07d-307/58

Parent patent disclosed a process for preparing difficult available or pure optical isomers of unsaturated cyclic, α, β-dihydroxy-monocarboxylic acids; substd. unsaturat aliphatic dicarboxylic acids and substd. unsaturated alip -ic mono-hydroxy-dicarboxylic acids and lactones, by (i growing a bacterial strain on a nutrient medium contg., C- and energy source, an aromatic cpd., (A), contg. a non-physiological substituent which is eliminated anionic ally during cell multiplication; (ii) adding a structurally analogous cpd. (B) which is metabolised and (iii) allowin the metabolite of (B) to accumulate in substrate.

In this addn., the new cpd. (+)-2,5-dihydro-2,4-dime -yl-5-oxo-furan-2-acetic acid, (I), is prepd. by (a) culti ating bacterial species WR 912 (registration no. DSM 11 on a mineral salt medium contg. a 3,4-or 3,5-dichloro-benzoate as C- and energy source, up to cell density $E_{546} = 1.5-2$; (b) adding 3,5-dimethyl-benzoate up to conc 5mM in medium; (c) recovering (I) formed by extn. and crystallisation from a diisopropyl ether/benzine soln.

Yields of (I) exceed 50%. 24. 11. 77 as 752379 Add to 2548454 (7pp200)

STRA- ★ D16 42523B/23 ★DT 2752-3
2,5-Di:hydro-2(4)-methyl-5-oxo-furan-2-acetic acid prepn. - biological cresol co-oxidn. in medium contg. chloro-benzoa replaced by chlorophenol
GES STRAHLEN-U UM W 24.11.77-DT-752380 (00.00.75-D 548454)
B03 E13 (31.05.79) C07d-307/58

Parent patent discloses a process for preparing difficulty available or pure optical isomers of unsatd., cyclic, α, β dihydroxy-monocarboxylic acids; substd. unsatd., alipha -ic dicarboxylic acids and substd. unsatd. aliphatic mono hydroxy-dicarboxylic acids and lactones.

In this addition, (+)-2,5-dihydro-4-methyl-, (I) and (+) -2,5-dihydro-2-methyl-5-oxo-furan-2-acetic acid (II) are prepd. by a cresol co-oxidn. process comprising; (a) cultivating a biologically active suspension of a Pseudomonas bacteria of strain B 13 on a mineral salt soln. cont a 3-chloro-benzoate as only C- and energy-source; (b) adapting the bacterial strain to 4-chlorophenol by continuously replacing the 3-chloro-benzoate according to a linear gradient by an equimolar concn. of 4-chloro-phenol until constant cell density $E_{564} = 1.8$ is reached; (c) adding a cresol and co-oxidn.

(I) is obtd. on adding o-cresol; (II) on adding p-cresol and a (I)/(II) isomer mixt. on adding m-cresol. The metabolites dissolved in culture liq. are recovered by sep the bacterial cells or by preparative chromatography.

(I) can be prepd. in quantitative yields; (II) in 95% yield and the isomer mixt. in 73% and 14% yields of isomers (I) and (II). 24. 11. 77 as 752380 Add to 2548454 (7pp200)

BISA/ ★ D16 42639B/23 ★DT 2823-253
Aerosol and foam generator - with radial blowing agent jets diverted into annular gap with entrained material
BISA K 30.11.77-US-856008
J02 P42 (31.05.79) B05b-07/04 C12k-01

A device to produce aerosol or foam consists of an outer tulip-shaped baffle which acts as a deflector for the blowing agent. It forms in combination with a central headpiec an annular slot through which the blowing agent and the atomised material entrained by it must pass.

The ratio of entrained liquid or powder to the amount of blowing agent is much increased thereby. The spectrum he particle size in an aerosol or a bubble size in a foam arrowed. Materials which are sensitive to shear forces croorganism suspensions) are not detrimentally affec- . 27. 5. 78 as 823253 (70pp39)

AP- ★ D16 42755B/23 ★FR 2401-994

eading microorganisms on cultivating gel in Petri dish - in ntinuous movement uninterrupted by sterilising spreader

LAB RECH API 30.08.77-FR-026789

(04.04.79) C12k-01/04

boratory technique and appts. for spreading a prod. ntg. microorganisms on the surface of a cultivation l, partic. in a petri dish. The spreading is carried out thout raising the spreader from the surface from start finish of the operation. The spreader drains out the od. in several lines of which at least adjacent pairs oss each other. At each intersection, the quantity of od. drawn onwards by the spreader is progressively ecreased.

The spreader is pref. a flat plate of rigid material, g. plastic or metal, with a line of teeth on the under- de to draw out the prod. from a single deposit on the rface of the gel. The teeth pref. lie on a straight line et at an angle between the direction of longitudinal dis- lacement of the spreader and the perpendicular to that irection. The spreader is advanced longitudinally with imultaneous reciprocation at right angles to the direct- on of advancement, giving the teeth zig-zag tracks across he gel surface.

Used for thinning out and sepg. a prod. contg. micro-organsis on the surface of a nutrient gel in a petri dish. Spreading is carried out in a single, uninterrupted move- nent of a spreader which does not have to be removed, terilised and cooled between spreading successive sets f intersecting line. This is quicker than previous tech- niques. 30.8.77 as 026374(9pp448)

MERI D16 38819A/22 =GB 1547-030

Bio-gum recovery from aq. media by heating - with di:aldehyde addn. at acid pH, to improve gum dispersibility in use

MERCK & CO INC 22.11.76-US-743541

*A11 (06.06.79) *DT2751-590 +C12d-13/04*

Biogum of improved dispersibility is recovered from an aq. medium by heating the aq. medium contg. the dissolved biogum, and having pH $\leqslant$ 7, to 70-100°C for sufficient time to improve dispersibility of the recovered biogum.

Heating takes place in the presence of 0.5-15 wt. % of a dialdehyde w.r.t. dry wt. of biogum. Dissolved biogum is then recovered from the medium. Pref. the aq. medium is a fermentation beer. The heating time is 2-5 mins. Biogum is xanthan gum, 5-7 or 5-10 gum. Dialdehyde is glyoxyal.

Used esp. to recover xanthan gum from pasteurised beer. Xanthan gum is pptd. by adding isopropyl alcohol, dried and milled. 16. 11. 77 as 047708 (4pp931)

SALE- D16 52575Y/30 #GB 1547-063

Ensilaging plant for animal feedstuffs - using Streptococcus faecalis bacteria with carbohydrates and materials decomposing carbohydrates

SALEN INTERDEVELOP 12.01.76-SW-000209 (07.07.77-GB-028520)

*C03 +P12 (D13) (06.06.79) *DT2700-644 A23k-03 +A23l-03*

Vegetable and/or animal materials are biologically ensiled by adding (A) lactic acid forming, acid tolerant bacteria from naturally occurring bacteria of the species streptococcus faecalis by repeated cultivation in a medium of pH 4-4.7 pref. 4.5, and opt., or if necessary, (B) a fermentable carbohydrate; (C) material which degrades strach into fermentable carbohydrates and/or (D) lactic acid forming, starch degrading bacteria from naturally occurring bacteria of the genera Streptococcus and Leucomostoc esp. S, lactis and L. mesenteroides by repeated cultivation in a medium contg. starch as sole C source.

Fermentation to lactic acid starts quickly and proceeds to a low pH value in the silage. The process is esp. for preservation and prepn. of feedstuff e.g. for farm animals. 7. 7. 77 as 028520 (7pp984)

RHON D16 84719Y/48 =GB 1547-077

Amino-acylases immobilised on inorganic supports - coated with basic crosslinked polymers, for separation of racemic acetyl-amino acids

RHONE-POULENC INDUSTRIES 26.05.76-FR-015984

*A96 B04 E19 (B05) (06.06.79) *BE-855-051 C07b-19/02 C07g-07/02*

Enzymatically active stable support-aminoacylase complexes consist of aminoacylase absorbed on a porous mineral support having a grain size of 4 μm-5mm, a specific surface of 5-150 m^2/g, a pore dia. of 500-2500 Å and a pore vol. of 0.4-2 ml/g. and coated in an amt. of <10 mg. m^2 with a film of crosslinked polymer contg. or bearing tert. amine gps. of quat. ammonium salt gps.

Pref. support is a metal oxide or a silica. The complexes are useful for sepg. racemic acetylamino acids. The complexes are stable and may be regenerated by contact with a soln. of the enzyme. 24. 5. 77 as 021895 (5pp 924)

ITDI- ★ D16 42821B/23 ★GB 2008-747

Surface immunoassay with two different test surfaces - useful with samples contg. interfering materials esp. in rubella assay

INT DIAGNOSTIC TECH 18.09.78-US-943314 (25.11.77-US-854613)

A96 B04 J04 R16 (06.06.79) G01n-33/16

Analyte in a test sample opt. contg. an unknown amt. of interfering material(s) is determined by using a first surface with an antigen for the analyte bound to it and a second surface that can bind a spectrum of materials, including any interfering material(s), but not the analyte.

Either the two surfaces are (1) simultaneously together immersed in the sample or (2) immersed in identical aliquots of sample. Then the surfaces are simultaneously immersed in an aliquot of labelled material to bind antibodies or they are immersed in identical aliquots. The difference between the amount of labelling on the 2 surfaces is then measured.

Procedure is esp. useful with viral antigens and partic. from a rubella, cytomegalovirus or Herpes Simplex virus, with bacterial antigens partic. from Treponema pallidum, with antigens from parasites partic. Toxoplasma gondii etc. for approp. testing of serum, etc. Samples test for rubella quantitatively is esp. useful in determn. of the immune status of individuals. 23. 11. 78 as 045832 (12pp1248)

MEZO- ★ D16 B/23 ★HU H002-434

Automatic greasing unit for wine presses

MEZOGEPFEJLESZTO 30.08.78-HU-ME2195

P71 (28.05.79) A23n-01 B30b-01/18

ALUM- ★ D16 B/23 ★HU T016-559

Continuous prepn. of ferric cpds. for hydrometallurey - using microbial oxidation process

ALUMINIUMIPARI TERV 29.10.76-HU-AU0363

E31 M24 (28.05.79) C01g-49

CHIN ★ D16 B/23 ★HU T016-597

Prepn. of insoluble, biologically active proteins, esp. enzymes - in association with polyolefin based copolymer carrier

CHINOIN GYOGYSZER 24.05.76-HU-CI1667

A96 B04 (28.05.79) C07g-07/02

KOND/ ★ D16 42829B/23 ★J5 4041-323

Adjuvant useful in immunological treatment of cancer - comprises non-acid fast bacterial obtd. by cultivating tubercle bacilli in medium contg. cinnamic acid deriv.

KONDO Y 06.09.77-JA-107614

B04 (02.04.79) A61k-35/74 C12k-01/06 C12k-03

The adjuvant comprises as an active ingredient non-acid-fast bacteria obtd. by cultivating tubercle bacilli in a medium contg. cinnamic or dihydrocinnamic acid having hydroxy and/or methoxy gp.(s) on its benzene ring or esters thereof. The adjuvant is useful in the immunological treatment of cancers.

The tubercle bacilli include Mycobacterium tuberculosis, Mycobacterium avium, Mycobacterium boyis, etc. Cinnamic acid derivs. used are e.g. 4-hydroxycinnamic acid, 4-hydroxy-3-methoxycinnamic acid, 2-hydroxycinnamic acid, methyl 4-hydroxycinnamate, 4-hydroxdihydrocinnamic acid, 2,4-dihydroxydihydrocinnamic acid, 7-

hydroxycoumarin, 7-hydroxy-6-methoxycourmarin and 2-oxo-7-hydroxy-3, 4-dihydrobenzopuran. 6.9.77 as 107614 (4pp16)

WAKP ★ D16 42855B/23 ★J5 4051-585

Enzyme activity determn. - by colour change of Fast New Blue 3R, using hydrogen carrier as coenzyme and organic acid and surfactant as colour stabiliser

WAKO PURE CHEM IND KK 30.09.77-JA-117362

J04 R16 (23.04.79) G01n-31/14

Method of determining the amt. of substrate or the activity of enzyme comprises using both organic acid (e.g. monocarboxylic acid such as acetic acid, polycarboxylic acid such as oxalic acid or succinic acid or hydroxycarboxylic acid such as citric acid or tartaric acid) and surfactant (e.g. polyoxyethylene type nonionic surfactant such as polyoxyethylene dodecyl ether) as colouring stabiliser, in the case of determining the amt. of substrate or the activity of enzyme by the change of colouration of Meldola's Blue based on the change of reduction type hydrogen carrier changing in relation to the amt. of substrate or the activity of enzyme in the enzymatic reaction contg., the reaction in which hydrogen carrier acts as coenzyme.

The amt. of substrate or the activity of enzyme can be very precisely and rapidly determined, and the method can be easily applied to automatic analytical method. Meldola's Blue is Fast New Blue 3R. 30.9.77 as 117362 (8pp50)

MATU ★ D16 42856B/23 ★J5 4051-595

Enzymatic electrode - comprising fixed oxidn.-redn. enzyme, redox cpd. and electroconductive substance

MATSUSHITA ELEC IND KK 29.09.77-JA-117474

J03 R16 (23.04.79) G01n-27/30

An enzymatic electrode consists of fixed oxidation-reduction enzyme (e.g. glucose oxidase), redox cpd. (insoluble cpd. having quinone skeleton such as p-benzoquinone deriv., naphthoquinones, anthraquinones, etc.) and electron-conductive substance (e.g. acetylene black), and the redox cpd. being coupled with the enzyme in a state of contacting with the electron-conductive substance.

By composing unitedly fixed enzyme, redox cpd. and electron-conductive substance, lowering of electrode response speed probably due to the diffusion of redox cpd. can be markedly depressed and rapid determination can be carried out. Also the enzyme and redox cpd. are not lost from the electrode during determination or by washing, and the response characteristics of the electrode are not lowered. 29.9.77 as 117474 (5pp50)

SAKA/ ★ D16 42921B/23 ★J5 4052-001

Antibacterial substance I-851 - prepd. from strain of Streptomyces fulvoviolaceus

SAKAI H 30.09.77-JA-118060

B04 (24.04.79) C07a-11 C12d-09/14

New substance I-851 has specified physical and chemical properties including (a) elementary analysis (%) 46.03 C, 2.60 H, 7.55 N; (b) mol. wt. (mass) of 183; (c) molecular formula $C_7H_5NO_5$; (d) m.pt. 153°C (dec.), (e) UV λ^{MeOH}_{max} nm (ε) = 214 (9150), 292 (15200), 349 (660); and (f) IR ν^{KBr}_{max} cm^{-1} = 3350, 3250, 2730, 1700, 1590, 1500, 1440, 1370, 1250, 1050, 990, 880, 750, 570. 7) NMR : δ (ppm) d_6 -acetone: 4.02 (1H, d, J=4 Hz), 4.22 (1H, d, j=4 Hz), 8.6 (1H, broad), 10.0 (1H, broad), 13.2 (1H, broad).

I-851 is produced by an I-851 producible strain of Streptomyces fulvoviolaceus or their mutants, e.g. Streptomyces fulvoviolaceus 851 (FERM-P 4223). I-851 is useful as at antibactericidal agent, MIC: 50 µg/ml against Escherichia coli. 30.9.77 as 118060 (5pp52)

AJIN ★ D16 42933B/23 ★J5 4052-033

Seleno-aminoacid prepn. - reacting aminoacid with selenol in the presence of methioninase enzyme

AJINOMOTO KK 29.09.77-JA-117664

B05 (24.04.79) C07c-163 C12d-13/06

Selenoamino acid of formula $Y-Se-(CH_2)CH(NH_2)COOH$ (I) is prepd. by reacting an amino acid $X(CH_2)_nCH(NH_2)COOH$ (II) with selenol Y-SeH (III) in the presence of methioninase in aq. solvent. X = halo, RO-, RS-, RSO-, or RSO_2-; R=H or lower alkyl; n = 1 or 2; Y = organic residue.

(I) is stated to have biological activity due to analogous structure to S-contg. amino acid, such as methionine o cysteine. 29.9.77 as 117664 (6pp104)

TOYJ ★ D16 43125B/23 ★J5 4052-

Prodn. of bacterial body useful as feed etc. - by culturing strai Pseudomonas flavomethanophila in medium contg. methanol carbon source

TOYO SODA KK 05.10.77-JA-119087

C03 (D13) (25.04.79) A23k-01 A23l-01/34 C12k-03

The method comprises culturing the bacterial strain of Pseudomonas flavomethanophila in the culture medium contg. methanol as the major carbon source and recove the bacterial body from the culture medium.

The noval bacterial strain can multiply efficiently uti ising methanol and is named P. flavomethanophila TS-1009 (FERM-P 4200). Thus prepd. bacterial body conta proteins, nucleic acids, vitamins, coenzymes, etc. and can be used as feed, industrial material, etc.

Pref. methanol concn. in the culture medium is < 7 (0.5-5) w/w%. The culture is practiced aerobically at 5 35 (20-30)°C at pH 5-9 (6-8). 5.10.77 as 119087 (4pp5)

MITC ★ D16 43126B/23 ★J5 4052-7

Culturing plant cells - by transplanting green cultured cell into saccharide-free medium, and cultivating under light with carb di:oxide

MITSUI PETROCHEM IND KK 29.09.77-JA-116029

(25.04.79) C12k-09

The method comprises transplanting the green cultured cell, induced from the green plant cell, into a medium n contg. saccharides; and conducting cultivation under irra iation with light while intermittently supplying air contg. CO_2.

Since the medium does not contain nutrients, such as saccharides, propagation of microorganisms and fungi c be inhibited. Thus a cheap culture vessel can be used. is not necessary to perform perfect sterilisation.

The plant cell is any one that contains chlorophyll me -phyll cell of annual grass and deciduous trees, partic. the mesophyll cell of tobacco. Induction of the green cultured cell from the plant cell is carried out by culturing the plant cell on the basic medium (e.g. Murashige and Skoog medium, Linsmaier and Skoog medium, White me ium or Heller medium) under irradiation of light. The medium is obtd. by removing saccharides from Murashig and Skoog medium, Lnasmaier and Skoog medium, White medium or Heller medium. The air contains 0.1-5, pre 0.5-2% CO_2. 29.9.77 as 116029 (3pp108)

KANF ★ D16 43127B/23 ★J5 4052-79

Coenzyme/Q prepn. from microorganism cell body - by treating a cell body suspension with acid or alkali, or mechanically treatin and extracting with solvent

KANEGAFUCHI CHEM KK 04.10.77-JA-119669

B05 (25.04.79) C12d-13

Aq. suspension of cell body of microorganism contg. coenzyme Q is treated with acid or alkaline substance or su jected to mechanical treatment, and the resultant is dried subjected to extraction with organic solvent and the resulting coenzyme Q is purified.

In an example, Candida utilis IAM 4200 which can produce Co Q_7 is cultured in a medium contg. glucose, ammo ium sulphate, K dihydrogen phosphate, Zn sulphate, Mg sulphate Fe (II) sulphate, yeast extract and water at 3o C for 40 hrs. Cell body is sepd. and suspended in water. The suspension is mixed with sulphuric acid (45 ml/5 litr suspension) and heated at 98°C for 30 mins., and after cooling 6N NaOH is added to adjust pH 5.0 and dried by drum dryer at 150°C for 5 secs. The dried substance is mixed with ethanol, and the mixt. is heated at 78°C with agitation, followed by filtration under heating. The resultant is dried under reduced pressure and subjected to saponification with sodium hydroxide and pyrogallol. The resultant is extracted with hexane. 4.10.77 as 119669 (5pp)

YOSH/ ★ D16 43128B/23 ★J5 4052-794

Prepn. of polysaccharide(s) for immune serum - active agains diseases caused by epidermostaphylococcus

YOSHIDA K 30.09.77-JA-118426

B04 (25.04.79) A61k-39/02 C12d-13/04 C12k-01/04

Strains of epidermostaphylococcus which are lethal to ce (body wt. of 15- to 20g) are sepd., and the strains nilar to strain SMU 76 of epidermostaphylococcus are ected and cultivated on a culture medium. The supernant and the cell body of the culture broth are subjected extraction to give capsular substances, and from these stances are removed proteins, nucleic acids and fats that the desired polysaccharides are obtd.

The obtd. polysaccharides have characteristic immun- properties and can be used for prepn. of immune serum ving phylaxis activity against diseases caused by epid- mostaphylococcus.

The cultivation is conducted, e.g. on a culture medium ntg. peptone, mannitol, maltose, K_2HPO_4 etc. at 37°C 24 hrs. The culture broth is subjected to centrifugat- n, and the supernatant is dialysed, centrifuged and the sultant supernatant is contacted with ribonuclease and oxyribonuclease at 37°C for 3 hrs. The resultant is di- ysed, dissolved in sodium acetate and mixed with ethan- . The precipitates are recovered and mixed with a mixt. chloroform and n-butanol (5:1), and the resulting pre- pitates are removed. To the obtained liq. is added eth- ol and the resulting precipitates are recovered and treat- with acetone and ether, followed by drying to give the sired polysaccharides. 30.9.77 as 118426 (3pp22)

ODA ★ D16 43129B/23 ★J5 4052-795

ore-formation inducing factor SF-1 - used to increase productivity antibiotics and enzymes

NODA INST SCI RES 29.09.77-JA-116139

B04 (25.04.79) C07g-11 C12d-09/04

ore-formation incuding factor SF-1 substance has the olecular formula $C_{15}H_{22}O_2$ and is prepd. by culturing a icroorganism belonging to the genus of Sclerotinia which capable of producing the SF-1 substance and recovering e objective cpd. Cultivation is at 20-32°C for 5-10 days. he Sclerotinia S-1 strain is a new strain and is deposited s FERM-P 421 and ATCC 20497.

The active cpd. accelerates the formation of spore of arious bacteria, partic. fungi and therefore is important the industrial cultivation of fungi. For example, it in- reases the productivity of antibiotics such as cephalospor- n and enzymes such as protease or amylase. 29.9.77 s 116139 (8pp108)

ATO/ ★ D16 43130B/23 ★J5 4052-796

nticancer agent prepn. - by culturing microorganism sepd. from onaderma lucidum (Fr.) Karst or its mutant under aerobic onditions

SATO A 30.09.77-JA-118259

B04 (25.04.79) A61k-35/84 C12d-13

Microorganism sepd. from Gonaderma lucidum (Fr.) Kar- st or its mutant, which can produce the anticancer agent, s cultured under aerobic conditions to produce anticancer agent, and then the agent is recovered from the culture medium. The culture medium contains a carbon source such as starch, glucose, maltose, dextrin, etc., a nitrogen source such as peptone, meat extract, yeast extract, etc., and other inorganic salt such as phosphate, magnesium salt, potassium salt, iron salt, calcium salt, manganese salt, etc.

Cultivation is at 23 to 30°C under aerobic conditions at pH 7.4 to 7.6 for 4 to 8 weeks. The resulting mycelium is collected and dried, immersed in hot water and concd. under reduced pressure. The resultant is treated with an organic solvent to give the active fractions. 30.9.77 as 118259 (6pp22)

PFIZ ★ D16 43326B/23 ★J5 4054-096

Substrate for determn. of amylase - comprises amylodextrin of high uniformity

TAITO PFIZER KK 07.10.77-JA-120567

A89 J04 R16 (A11) (27.04.79) G01n-31/14 G01n-33/16

Substrate for the determn. of amylase which comprises consisting of amylodextrin (I). (I) is e.g. a fraction consisting mainly of dextrin of fundamental structure having a branch of α-1,6-bond, of average polymerisation degree ∼ 25 obtd. by acid hydrolysis of granular starch and/or a fraction consisting mainly of dextrin of fundamental structure having no branches, of average polymerisation degree

Amylodextrin of high uniformity is prepd. by hydrolysing starch by heating while protecting the crystalline structure of starch granules in acid soln. contg. organic solvent (e.g. acetone, methanol, etc.).

The amylodextrin has uniformity higher than that of previous dextrins, and the accuracy and reproducibility for the determination of amylase can be markedly improved by the use of the amylodextrin. 7.10.77 as 120567 (11pp

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TAKG D16 62779A/35 =J7 9011-389

Acrylamide decomposition in waste water - by contacting with Brevibacterium ammoniagenes intracellular enzyme

TAKI KAGAKU KK 00.00.77-JA-136055 (23.12.75-JA-155308)

*A41 E16 (A35) (15.05.79) *J53086-078 C02c-01/02 C02c-05/10 C12b-01*

Method comprises contacting acrylamide with the intracellular enzyme of Brevibacterium ammoniagenes. Pref. the seed strain of B. ammoniagenes is cultured at 25-35 °C and pH 6.5-8.5 in a liq. culture medium contg. C source, N source, inorganic salts and other nutrients.

After cultivation the bacterial body is sepd. by filtration, etc. and the crude enzyme can be obtd. by drying the bacterial body by the acetone powder method or by freeze drying and breaking the bacterial cells by masking in buffer soln. or subjecting to supersonic waves. Pref. species are ATCC 1641, ATCC 6871 and ATCC 6872.

Method can be adapted for preparing polyacrylamide free of acrylamide monomer by decomposing unreacted acrylamide monomer in polyacrylamide with the enzyme. 23.12.75 as 136055/77 Div. ex 155308/75 C02c-1/02, 5/10 C12b-1/00, C12d-13/10 (15.5.79) TAKI KAGAKU KK (2pp) (J53086078)

AGEN D16 73023Y/41 =J7 9011-393

Coagulation of methanol utilising yeast - by treatment with calcium chloride of iron(II) sulphate and then making broth weakly alkaline

AGENCY OF IND SCI TECH 28.02.74-JA-023924

*(15.05.79) *J50117-984 +C12b-01/26*

A yeast culture on a MeOH medium was treated with $CaCl_2$ or $FeSO_4$ and adjusted the pH to > 6.5 to coagulate the yeast cells.

In an example, Candida N-16 (FERM-P 425) was continuously cultured on a MeOH medium (60 g/l.) at 30° adjusting the pH to 3.5 with NH_4OH. The culture broth contg. yeast cells at 22 g/l. was treated with $CaCl_2.2H_2O$ at 0-400 mg/l. and was adjusted to pH 8 with KOH. Yeast coagulation was best when treated with $CaCl_2.2H_2O$ at 100 mg/l. the yeast suspension was concd. to 96 g/l. after 30 min. standing. The same culture broth was treated with $CaCl_2.2H_2O$ at 150 mg/l. and the pH was adjusted to 5.5-9.0. Yeast coagulation was best at ∼pH 7.7; the yeast suspension was concd. to 100 g/l. after standing for 25 min. 28.2.74 as 023924 C12b-1/26 (15.5.79) AGENCY OF IND SCI TECH (7pp)(J50117984)

MITN D16 04930A/03 =J7 9011-394

Bacterial cell separation - by adding cell suspension to protein extracted from microbe and coagulating in acid conditions

MITSUBISHI GAS CHEM IND 23.04.74-JA-045123

*(15.05.79) *J50135-275 +B01d-21/* C12b-01/26*

Bacterial cell suspension is added to a protein extracted from a microbe and coagulated at pH 1-5. In an example 4 wt.% culture broth of Pseudomonas methanolica cultured on a MeOH medium was added to an 0.3N NaOH extract of commercial baker's yeast and stirred. The bacterial cells were coagulated at pH 2.5. 23.4.74 as 045123 C12b-1/26; B01d-21/01 (15.5.79) MITSUBISHI GAS CHEM IND (5pp)(J50135275)

AMAN D16 76468W/46 =J7 9011-395

Amylase inhibitor, X-2 substance prodn. - using Streptomyces fradiae; establishment of identity

AMANO PHARM KK 20.11.73-JA-129765

*B04 (15.05.79) *J50077-594 +A61k-31/71 C07g-07 C12d-13*

An amylase inhibitor, X-2, was produced by Streptomyces fradiae (FERM-P 2303). In an example, the microbe was aerobically cultured on 20 l. medium (pH 7.3) contg. peptone 0.5, meat extract 0.2, yeast extract 0.1, glucose 3, KH_2PO_4, 0.1, Na_2HPO_4 0.4, and $MgSO_4$ 0.05% at 35° for 68 hrs. X-2 was pptd. from the culture filtrate by addn.

of $(NH_4)_2SO_4$ at 0.6 satn. and desalted with Sephadex G-50, yielding 10g. crude prepn. with activity of 276 units/ mg. The prepn. was purified by Sephadex G-50, DEAE-cellulose, and TEAE-cellulose column chromatographs and lyophilised yield 300 mg. prepn. with activity of 4100 units /mg.

X-2 was stable at pH 2-12 and to treatment with 1N HCl at 37° for 15 mins. and was not inactivated by urea, guanidine-HCl, EtSH or by treatment with trypsin and pepsin. It was inactivated by treatment with 1N HCl at 100° for 15 mins. and by heating at 100° for 15 mins. at $>$ pH 10.0. It was an acid polypeptide with aspartic acid or asparagine at the N-terminal and had mol. wt. of ~ 6500. It did not give sugar by acid hydrolysis. 20.11.73 as 129765 C12d-13/00, A61k-31/71, C07g-7/00 (15.5.79) AMANO PHARM KK (8pp)(J50077594)

TOYM D16 56350W/34 =J7 9011-396

Alkaline protease prodn. - from Streptomyces griseus var. alkaliphilus by snake-culture

TOYOBO KK (TOYP) 20.07.73-JA-081075

*(15.05.79) *J50035-385 +C12d-13/10*

An alk. protease was produced by Streptomyces griseus var. alkaliphilus (FERM-P 2086). In an example the microbe was shake cultured on a medium contg. starch 20.0, milk casein 10.0 corn steep liquor 5.0, K_3PO_4 3.0 $MgSO_4.7H_2O$ 0.5, and Na_2CO_3 200 g in 1 l at 30° for 60 hr. Prodn. of the alk. protease was 27.5 units/ml.

The culture filtrate was neutralised with HOAc and the enzyme was pptd. with 0.7 satd. $(NH_4)_2SO_4$, collected by centrifugation and dried, yield was 87.0%. The crude enzyme prepn. had an activity of 7.5 units/mg. 20.7.73 as 081075 C12d-13/10 (15.5.79) TOYOBO KK (7pp) (J50035385)

KAWA- D16 16437A/09 =J7 9011-397

Alcohol prodn. using Chlorella - by culturing on a medium contg. carbon and nitrogen sources and minerals followed by hydrolysis

KAWAMYRA SANGYO KK 22.05.74-JA-058282

*E17 (15.05.79) *J50148-587 +C12c-11 C12d-05*

In an example Chlorella vulgaris Al-ly was cultured with shaking at 35° for 5 days on a dil. faecal digestion liq. supplemented with KH_2PO_4 0.24, $Na_2HPO_413H_2O$ 1.5, and $NaOAc.3H_2O$ 0.5 g/dl. The pH was adjusted to 7.0 and 1g. $NaOAc.3H_2O$ was added after 2 and 3 days cultivation. About 3g. cells contg. 2.1 g. starch were obtd. from 1 l. The cells were hydrolysed with H_2SO_4 or by an amylase (gluezyme AF-3). The sugar soln. (14.8-15.8%) was fermented by an alcohol yeast at 32°C for 4 days. Prodn. of alcohol was 3.32-3.76 g/50 ml; fermentation rate was 87.4-92.6% 22.5.74 as 058282 C12d-5/00; C12c-11/00 (15.5.79) KAWAMURA SANGYO KK (4pp)(J50148587)

ASAH D16 64425U/43 =J7 9011-398

Fermentative prodn of lysine

ASAHI CHEMICAL IND KK 26.06.71-JA-046019

*B05 E16 (15.05.79) *J48010-287 +C12d-13/06*

Microbacterium ammoniaphilum L 147736, an isoleucine (I)-requiring mutant derived from ATCC 15354, produced ~ 30% L-lysine based on sugar in the presence of a limited amt. of I. The mutant was shake-cultured at 30° for 72 hrs. in the presence of biotin 0.1. L-cystine 100, and L-I 120-200 or 500 mg/l. to give 16.8-18.6 or 4.1 mg/ml L-lysine, resp. 26.6.71 as 046019 C12d-13/06 (15.5.79) ASAHI CHEMICAL IND. CO. LTD (5pp)(J48010287)

LEPE D16 63408U/42 =J7 9011-399

Rifamycin b - from streptomyces mediterranei mutant strain

GRUPPO LEPETIT SPA 05.05.72-IT-023926

*B02 (15.05.79) *BE-799-122 C12d-09/14 C12d-13*

Title cpd. is prepd. by aerobic fermentation of the Mutant M18 ATCC 21789 in an aq. nutirent medium contg. assimilable C and N sources and essential mineral salts. The microorganism does not require Na diethyl barbiturate as an inhibitor to produce rifamycin B in good yield. 2.5.73 as 049604 (clg. 5.5.72-IT-023926) C12d-13/00, 9/14 (15.5.79) GRUPPO LEPETIT S.P.A. (10pp)(J49054589)

TAKE D16 67767U/45 =J7 9011-

Direct deacetylcephalosporin prodn - inter for semi-synthe cephalosporins

TAKEDA CHEMICAL IND KK 15.04.72-JA-038071

*B02 (15.05.79) *DT2318-650 C12d-09/04 +C12d-13*

Title cpd. (I) is produced by cultivating a (I)-producing microorganism of the family Cephalosporium in a nutrie medium, pref. with the addn. of methionine as a stimula and isolating (I) from the culture medium. Pref. micro organsisms are cephalosporium acremonium C128, C acremonium no. 132 (ARCC 20371) and Cephalosporium C-28 (ATCC 20370). 15.4.72 as 038071 C12d-13/00, 9/0 (15.5.79) TAKEDA CHEMICAL INDS. LTD. (4pp) (J49000491)

VOLP/ ★ D16 B/23 ★PT --68-4

Treatment of centrifuged grape juice with gas under pressure - remove insoluble colloids before fermentation

VAN OLPHEN G C 18.08.78-PT-068443

*(16.05.79) C12g-00/**

PHYT= ★ D16 43402B/23 ★SU -302-9

Grain crop antifungal treatment - using didymocladium ternatu Saccharomyces biomass extract or culture medium, to protect fro rust fungi

PHYTOPATHOLOGY RES 18.02.70-SU-408909

C03 (25.01.79) A01n-15

The control of phytophathogenic fungi includes the treatment of plants with metabolic prods. of antagonistic fungi

In order to protect grain crops from rust fungi and ric from Piricularia oryzae fungi, the plants are treated with an extract of Didimocladium ternatum Sacc. biomass or its culture medium contg. metabolic prods. of this fungus

The best results are obtd. using 0.1-1.0 l. of culture medium filtrate per 1 m^2 of crops, or 0.25 l. of 0.01-0.2 aq. extract of biomass of D. ternatum fungi per 1 m^2 of crops.

Derzhinskii, A.R., Ivanchenko, Yu.N., Klyagina, M.M. et al. Bul. 3/25.1.79. 18.2.70 as 408909 (2pp938)

PHYT= ★ D16 43417B/23 ★SU -405-23

Pharmacological antifungal antibiotic prepn. - by repeated extn. o didymocladium ternatum Saccharomyces culture medium wit organic solvents, chromatography, and recrystallisation

PHYTOPATHOL RES INS 02.12.71-SU-720773

B04 C03 (25.01.79) A61k-35/66

Antifungal antibiotic, used in pharmaceutical ind., is prepd. by extracting Didimocladium ternatum Sacc. culture medium with chloroform, treating the extract with ethanol evaporating the solvent and repeated extn. of the residue with petroleum ether and carbon tetrachloride mixt. The combined extracts are cooled and the crystalline ppte. chromatographed on silica gel, eluted with chloroform and then with chloroform contg. ethyl acetate.

The combined active fractions are evapd. in vacuo to remove solvent and raw material is purified by repeated recrystallisation from petroleum ether and carbon tetrachloride mixt., or from aq. acetone or from aq. alcohol.

The method gives final prod. in crystalline form and of improved purity. It is white crystalline powder with m.pt. 214°C.

Derzhinskii, A.R. Bul. 3/25.1.79. 2.12.71 as 720773 (2pp938)

PHYT= ★ D16 43433B/23 ★SU -508-151

Ternatin antifungal antibiotic prodn. - using didymocladium ternatum Saccharomyces strain as producer, useful in plant protection

PHYTOPATHOL RES INS 29.03.73-SU-897684

B04 C03 (25.01.79) C12d-09 C12k-01/06

Microbial strain Didymocladium ternatum Sacc. (syn. Caldotrichum ternatum Bonordeu) is a producer of ternatin antifungal antibiotic.

On an agarised chapek medium contg. 1% corn extract, white velvety colonies are developed achieving a dia. of 80 85 mm. after 3 days. On incubating at 26°C mycelia growth is observed on the second day and spore development begins after 4-5 days; fungus growth on a standard Petri dish ceases after 10-13 days. Optimum growth temp. is 22°-28°C.

akhtanova, T.I., Muromtsev, G.S., Yatskova, M.M.
l. Bul. 3/25.1.79. 29.3.73 as 897684 (3pp314)

T= ★ D16 43435B/23 ★SU-517-198
fungal antibiotic pharmaceutical prepn. - using didymocladium atum Saccharomyces producer strain and nutrient medium g. peptone and glucose
PHYTOPAPHOL RES INS 17.12.74-SU-099213
304 C03 (25.01.79) A61k-31/71 C12d-09

ifungal antibiotic pharmaceutical prepn. is obtd. by turing Didymacladium ternatum Sacc. strain in culture dium contg. peptone and glucose and mineral salts folved by prod. extn. with organic solvent and purificn. by rystallisation.

The purity and the yield of the final prod. are increased after the culturing of the above producer strain in medn contg. peptone and glucose, the resulting medium is d. at pH 6-7 with a mixt. of satd. hydrocarbon and orinated hydrocarbon (e.g. methylene chloride, chlororm, CCl_4) in 9:1 vol. ratio. The prod. is purified by crystallising from benzene-hexane (2:1) mixt.

ronkina, T.M., Koreneva, V.M., Kirsanova, G.V.
l. 3/25.1.79. 17.12.74 as 099213 (2pp938)

CR= ★ D16 43441B/23 ★SU-561-313
ant growth stimulating compsn. - prepd. by dehydrating extra llular amino-acids producing mutant microbial strain culture edium
MICROBIOL INST (UYRO=) 14.02.75-SU-107035
C03 (30.12.78) A01n-05

lant growth stimulating compsn. is prepd. by culturing uxotrophic mutant microbial strain with extracellular nino-acid prodn. activity and after sepg. biomass deydrating the culture medium.

The compsn. has high growth stimulating activity and an be used for coating plant seeds before sowing. It also ncreases biological activity of fertilisers.

eker, M.E., Ponamorenko, A.V., Kogan, I.B. et al.
ul. 48/30.12.78. 14.2.75 as 107035 (2pp938)

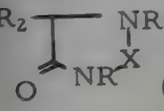
IDR= ★ D16 43460B/23 ★SU-614-646
icrobial protein biomass prodn. - using two/stage yeast culturing ollowed by fungus strain growing in same culture medium
GIDROLIZPROM 18.08.76-SU-400480
C03 (D13) (18.01.79) C12c-11/14

iomasses are obtd. in a double culturing process by (a) ultivating a yeast, e.g. a Candida type, in a nutrient medium contg. C and N sources and mineral salts, (b) separting the biomass, (c) using the resulting culture liq. to ultivate a Specaria, Penicillium or Aspergillus-type fungs mould, (d) recovering the resulting biomass and (e) drying the two biomass prods. together.

The method ensures an efficient utilisation of the org. naterials in the culture liq. obtd. from the first culture.

Zharova, V.T., Blagushin, V.F., Matigorova, E.A. et l. Bul. 2/15.1.79. 18.8.76 as 400480 (2pp314)

SNAM D16 69536V/40 =SU-618-037
Optically active amino acids prodn. - from 1-carbamyl-amino acids prepd. by enzymatic hydrolysis of (thio)hydantoins or oxadiazoles
SNAMPROGETTI SPA 11.05.73-IT-023957
*B05 E16 (05.03.78) *BE-814-867 C07c-101/04*



(I)

In the title process cpds. (I) (where X is CO, CS, or O. R is H or 1-8C hydrocarbyl, and R_1 is a residue derived from an amino acid by removal of $-CH(NH_2)COOH$) are hydrolysed in the presence of an enzyme. The desired isomer is isolated and the undesired isomer is racemised by heat and adjustment of pH to give further quantities of (I) which are recycled.

The desired carbamyl amino acids are converted into the corresp. amino acids. Thus, 5-isopropylhydantoin is converted into 1-carbamoylvaline using dihydropyrimidinase from calf liver, the di-isomer being racemised and recycled 1-valine is prepd. by hydrolysis of the carbamyl deriv.

Dinelli, D., Morisi, F., Zakkardelli, D. Bul. 28/
30.7.78. 8.5.74 as 025314 (4pp)

SNAM D16 04317Y/03 =SU-618-048
Improving oxidoreductase enzyme activity - by incorporating to fibrous structure with coenzyme preliminarily bonded to water soluble polymer BE100177)
SNAMPROGETTI SPA 10.07.75-IT-025251
*A96 B04 R16 (05.09.78) *DT2631-045 C07g-07/02*

Activity of oxidoreductase enzymes is improved by incorporating the enzyme and a coenzyme into a fibrous structure. The coenzyme is previously functionalised and bonded to water-soluble high mol. wt. polymers.

Polymer-embedded macromolecular coenzyme/enzyme system can be used in: (i) steroid synthesis or conversion of steroid nuclei at pre-determined positions; (ii) stereospecific syntheses of aminoacids from hydroxyacids or ketoacids and (iii) analytical chemistry, by using systems in which the last oxidn. of reduced coenzyme or reduction of oxidised coenzyme take place with a chemical cpd. the adsorption spectrum of which depends on whether it is present in reduced or oxidised form. Oxidoreductase is stabilised by simultaneous incorporation of enzymes and coenzymes.

Prosperri, G., Marconi, W., Giovenco, S. Bul. 28/
30.7.78. 9.7.76 as 382510 (4pp)

AMCY D16 33005V/18 =SU-618-053
Antibiotic BM 123 - prepd. by cultivating a microorganism of Nocardia SP NRRL 5646 or its mutants
AMERICAN CYANAMID CO 12.10.72-US-297173
*B04 C03 (25.07.78) *DT2351-344 C12d-09/22*

Antibiotics BM 123 alpha, BM 123 beta and BM 123 gamma are produced by cultivating a microorganism with the characteristics of Nocardia sp. NRRL 5646 or mutants thereof under submerged aerobic conditions in an aq. nutrient medium contg. assimilable sources of carbohydrate, nitrogen and inorg. salts until a substantial anti-bacterial activity is imparted to the medium then isolating the antibiotics from the medium. The new antibiotics display in vivo antibacterial activity against various organisms and can be used for the treatment of bacterial infections in mammals. They are pref. administered parenterally.

Martin, J.H.E.J., Tresner, H.D., Porter, J.N. Bul.28/
30.7.78. 27.9.73 as 968937 (13pp)

KDPO= ★ D16 43490B/23 ★SU-618-098
Leaf tobacco tube forming apparatus - has helically grooved drum in housing with oppositely angled rollers ahead of disc knife cutter
KRASD POLY 22.11.76-SU-436907
P15 (03.07.78) A24b-07/14

A conveying drum is spaced within a housing to leave a gap forming an annular die. To improve cut tobacco quality, the drum outer surface has corrugations lying along a helical line while the housing has rollers also disposed along the line. The direction of the corrugations is pref. opposite to the direction of the rollers.

Borodyanskii, V.P., Grekov, F.N., Grigorev, V.A. et al
Bul. 29/5.8.78. 22.11.76 as 436907 (3pp1358)

KHOR= ★ D16 43491B/23 ★SU-618-107
Vertebra degenerative dystrophy treatment - involves vertebra traction and reduction followed by stabilisation and papain injection
KHARK ORTHOPEDICS 10.01.77-SU-441871
B04 P31 (23.06.78) A61b-17 A61k-29

Efficient treatment of degenerative distrophy of vertebra and faster ankylosis are achieved by traction and reduction of vertebra followed by stabilisation of the affected segment with a clamp. Then papain is injected into the intervertebral discs to saturate them.

The puncture of the affected discs is carried out after general anaesthesia and the syringe needle is inserted laterally. The capacity of the discs is determined by discography, and access is made to the spinous processes and to base of arches.

The papain soln. contains 5 mg. of solid substance and 1 ml. of solvent. Then 5-10 min. after the first injection a second injection is made using 96% ethanol. Desensitising theraphy in the post-operative period prevents allergy complications.

Khvisyuk, N.I., Prodan, A.I., Volkov, E.B. Bul. 29/
5.8.78. 10.1.77 as 441871 (3pp89)

BIOT= ★ D16 43501B/23 ★SU -618-125

Turbo-ejector for aerating and stirring culture media - contains perforated rings mounted between disc of fan and profiled casing of rotor

BIOTECH RES INST (SVET=) 17.01.77-SU-445162

(26.06.78) B01b-05/16 C12b-01/16

Simplified design of the turboejector for aerating and stirring culture media, as used in microbiological ind. for growing microorganisms, e.g. yeast, is ensured by introduction of perforated rings mounted between the discs of the fan and the curved walls of the rotor.

The initial liquid is taken by the vanes of the propeller pump and ejected through the perforated rings in a multitude of thin streams. These aspirate the air stream freely incoming from the fan, and form air-liquid mix which then is fragmented by a row of inclined baffle plates fixed inside the nozzle, before it is ejected from the turbo-ejector.

Ivankov, V.I., Kalunyants, K.A., Krasnolutskaya, T.I. et al. Bul. 29/5.8.78. 17.1.77 as 445162 (2pp135)

FERM= ★ D16 43653B/23 ★SU -618-407

Inoculum culture preparation - divides sterilised nutrient with one stream for bacterial growth and the other held for mixing

FERMENT PRODUCT RES 13.01.77-SU-442668

(03.07.78) C12b-01/08 C12c-11/08

Infection of medium is prevented and inoculum growth is intensified by dividing the cooled sterilised nutrient into two streams. One stream is used to grow the bacterial culture for ferment production for hydrolysing the starch of the medium. The time of growth takes 16-18 hr., and during that period the other stream is held up.

This is followed by mixing and subsequent sterilisation as well as cooling before starting the growth of inoculum on the hydrolysed nutrient. The improved assimilation of the nutrient increases the concentration of solids and reduces the growth period.

Yarovenko, V.L., Belozerov, P.A., Yarovenko, V.V. et al. Bul. 29/5.8.78. 13.1.77 as 442668 (3pp89)

KIFO= ★ D16 43654B/23 ★SU -618-408

Baker's yeast culture unit - has a pipe connecting the gaseous spaces of yeast growing and separator vessels

KIEV FOOD IND TECH 25.02.76-SU-330542

(03.07.78) C12b-01/10

Growing baker's yeast in the separator to achieve complete utilisation of nutrient in the culture medium as well as increased yield are achieved by pipe connection between the yeast growing and the separating units. The discharge tube of the ready product is fitted with a hydraulic seal.

The separator ensures chemical destruction of foam and discharges air into atmosphere by the draught tube. The culture medium is drained off by a connecting pipe, and a given level of the medium is maintained by the hydraulic seal.

Sokolenko, A.I., Gandzyuk, M.P., Semikhatova, N.M. et al. Bul. 29/5.8.78. 25.2.76 as 330542Add to 587146 (3pp89)

FERM= ★ D16 43655B/23 ★SU -618-409

Vodka production line - has facility for feeding pulsed compressed air through diaphragms of each contact unit

FERMENT PRODUCT RES 16.03.77-SU-463279

(03.07.78) C12h-01/04

Intensified prodn. of vodka having improved quality is ensured with pulsating feed of compressed air through the diaphragm of each contact unit. The last contact unit in the line is connected to a filter via a buffer tank fitted with a non-return valve, and the adsorption elements of the contact units form a sealed pack.

The packs are cantilever-mounted with flanges attached to the housing, and feature rings with slots for screens and carbon fibre fabric acting as a filter. The alcohol-water mixture is forced into the contact units by a centrifugal pump to flow past activated carbon discs for the separation of unwanted impurities.

Kodin, G.S., Slavutskaya, N.I., Yarovenko, V.L. et al. Bul. 29/5.8.78. 16.3.77 as 463279 (4pp89)

PETR= ★ D16 43656B/23 ★SU -618

Oil-based compsn. for protecting wines and other volatile liqu contains ceresin, sodium or potassium metabisulphite, aerosil perfumery oil

PETROL ENG RES INST (MAGA=) 28.04.77-SU-487501

Q34 (30.06.78) B65d-87/36 C12h-01/14

The compsn. of hydrophilic liqs. from evapn., oxidn. microbial attack comprises (by wt. %): 2.0-6.0% ceresi 0.5-2.0% aerosil, 0.5-3.0% Na or K metabisulphite anc balance perfumery oil.

The compsn. has enhanced hermetising and antisepti props. and a longer life.

Golodriga, P.Ya., Umanchik, N.P., Faintsimer, R.Z. et al. Bul. 29/5.8.78. 28.4.77 as 487501 (2pp314)

ALMI= ★ D16 43657B/23 ★SU -618-

Lympholeucosis mass-diagnosis in cattle - using leukaemia v immunised rabbit serum for cyto-toxic reaction in vitro for accura

AS LATV MICROBIOLOG 25.07.75-SU-159848

B04 C03 P31 (16.03.78) A61b-10 C12k-01

Lympholeucosis in short-horned cattle is diagnosed by e posing a virus of type S. Leukaemia virus bovinus LB-2 using a cytotoxic reaction in vitro on a hyper-immune ra bit serum.

The index of reaction is measured in relation to the l sed leucocyte blood cells of healthy and sick animals anc when the ratio is below 0.3 the absolute response to lym pholeucosis is computed. The method improves the sen ivity of the diagnosis when carried out as a mass livesto examination.

Kukain, R.A., Nagaeva, L.I., Kudeleva, G.V. et al. Bul. 29/5.8.78. 25.7.75 as 159848 (4pp314)

ASMI= ★ D16 43658B/23 ★SU -618-4

System for aerobic microorganisms storage in liquid medium - us inlet and outlet gas filters and top interconnected test tubes w samplers

AS USSR MICROORGANI 27.01.77-SU-447635

(22.06.78) C12k-01

Long-term storage of aerobic microorganisms by keepin them in active stage in a liquid medium is achieved by us ing test tubes featuring samplers. The latter are interconnected at the top, while the inlet and outlet of the syst em include gas filters. The filter element may be forme by glass wool.

Sampling is made by opening channels between filters and extreme test tubes for pressure equalisation in the s -tem with that of the atmosphere. Then the channel between the corresp. test tube and sampler is opened allowi culture drawing with a pipette.

Galchenko, V.F. Bul. 29/5.8.78. 27.1.77 as 447635 (2pp89)

MICR= ★ D16 43659B/23 ★SU -618-41

Animal feed lysine concentrate prodn. - using specifie Brevibacterium strain as producer for high yield

MICROORANISM GENETI 30.06.76-SU-378392

(22.06.78) C12d-13/06 C12k-01/02

Brevibacterium sp. DE-84 strain cells are 1.2 x 2.5 u si oval-shaped, non-sparing, Gram-positive and non-mobile A -day growth on a meat-peptone agar produces colonies of dia. 3.5-4.0 mm; the colonies are circular with unifor edges and an elevated centre cone; they have 2-3 concentric corrugations and are coloured orange.

It is stable towards phage ØB and in the presence of large amts. (10^8/ml.) produces up to 40 g/l. of lysine. Lysine prodn. by fermentation is 15-17% above that for known strains.

Zhdanova, N.I., Vikhanskii, Yu.D., Udrovskii, G.A. et Bul. 29/5.8.78. 30.6.76 as 378392 (3pp314)

DDAL/ ★ D16 43784B/23 ★US 4155-29

Vinification vat with cylindrical vessel in tank - rotatable abou longitudinal axis and pivoting about horizontal pin

DA DALT G 04.01.78-US-866898

(22.05.79) C12c-01

A vinification vat comprises a cylindrical vessel which is placed in a tank of liq. at a controlled temp. The cylindrical vessel can be rotated about its longitudinal axis by a motor at its neck. In addition the neck includes a horizontal pin which is received in a yoke attached to the tank.

Vhen the vessel is empty it floats in the tank and assum
a horizontal position but when liq. is introduced into
vessel it pivots about the pin and becomes submerged
he tank liq.
Grape husks are mixed with must in the vessel to make
e which is then removed. 4.1.78 as 866898 (5pp295)

★ D16 43889B/23 ★US 4155-811
ect microbiological prodn. of citric acid - by aerobic fermentation
Candida lipolytica at low pH
PFIZER INC 07.07.70-US-031903 (23.10.69-US-868897)
E17 (22.05.79) C12d-01/04

e known prepn. of citric acid (I)by fermentation of a
ast of genera Candida on an aq. medium contg. 9-19C
paraffin(s) (II) as the source of assimilable C is improv-
by using an active culture of Candida lipolytica ATCC
228 and carrying out the fermentation at a pH < 4.
Using the above organism, the rapid process gives
uch higher yields (50-75%) of (I), directly as the free
id. In addn., only small amts. of erythritol, and not
ore than traces of arabitol and mannitol are formed. (I)
used in the food industry. 7.7.70 as 031903 (5pp478)

Z ★ D16 43890B/23 ★US 4155-812
dium, potassium or ammonium 2-keto-L-gulonic acid prepn. -
om corresponding L-gulonate by fermentative oxidation with
nthomonas strain, used as intermediate for vitamin/C
PFIZER INC 30.11.77-US-855944
B05 E12 (22.05.79) C12d-01/02

mixt. of Ca and Na, K or ammonium 2-keto-L-gulonate
) is produced by cultivating a suitable strain of Xantho-
onas on a medium contg. a mixt. of Ca and Na, K or
mmonium L-gulonate.
2-Keto-L-gulonic acid is an intermediate for vitamin
. Xanthomonas, translucens ATCC 10768 is pref. Suit-
ble strains are selected by their ability to convert secon-
ary alcohols to ketones. The nutrient medium contains
bout 8% Ca gulonate and 40 g/l Na gulonate. 30.11.77
s 855944 (5pp916)

ONN D16 42611A/24 =US 4155-813
ermentation process pref. for vinegar prodn. - by continuously
ultivating bacterial strain in presence of hydrous metal oxide and
helated poly:hydroxy support
GIST-BROCADES NV 20.02.76-GB-006841
*(22.05.79) *GB1514-425 C12b-01/20 C12j-01/04 +C12d-01/02*

ermentation process comprises continuously cultivating
(non)extra-cellular cellulose producing bacterial strain
n a medium contg. the substrate, in the presence of ~
.01-2.2 g/l hydrous oxide of Ti, V, Zr, Fe or Sn, chel-
ted to a polyhydroxy support selected from cellulose,
wood, saw dust, glass, siliaceous materials and polymers
contg. C-OH or Si-OH.

When the strain is non-extracellular producing, the metal oxide polyhydroxy support chelate has a wt. ratio of polyhydroxy support of 1:2-1:25 (w/w), and is added to the medium. When the strain is extracellular producing, the chelate is formed in situ in the medium from the oxide and cellulose produced extracellularly by the strain.

The process is used e.g. for the prodn. of vinegar. 14.2.77 as 768486 (6pp924)

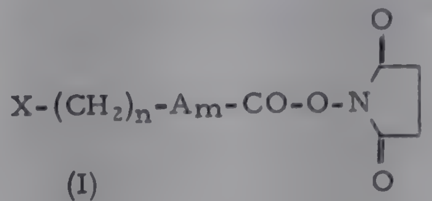
NOVA/ ★ D16 43906B/23 ★US 4155-846
Multichamber chromatography column - requires smaller volumes of eluant and gives fractions of higher concn. than conventional column
NOVAK L J 19.10.77-US-843663
B04 J01 (22.05.79) B01a-13/08

Chromic sepn. or purification of an eluting fluid comprises contacting with a particulate material which is contained in a column comprising separate chambers arranged in ser-
ies and through which the eluting fluid can flow. The part-
iculate material is retained within each chamber by scree-
ns which however allow passage of eluting fluid

Used for purifcn. of complex biological and macromole-
cular mixts. such as enzymes and proteins. The column requires smaller volumes of eluant than conventional ones and the eluate fractions are of higher concn. 19.10.77 as 843663 (6pp916)

BOEF D16 06571A/04 =US 4155-914
Hydroxy-succinimido ester derivs. - used for bonding biologically active protein to one another and carriers (NL 17.1.78)
BOEHRINGER MANNHEIM GMBH 14.07.76-DT-631656
*A41 B04 E13 (22.05.79) *DT2631-656 C07d-207/46 C07g-07*

Hydroxy-succinimide esters of formula (I) are new.



(I)

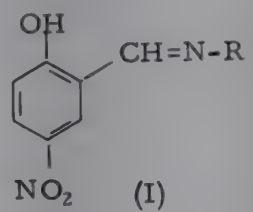
In (I), X is -CONH-CH_2-$CH(OR_1)_2$; A is a single bond; n is an integer 2-7 and R_1 is (m)ethyl.

(I) are useful as bridge-building cpds. for linking proteins, esp. biologically active proteins, to solid or liq. carrier matrix materials, yielding valuable carrier-bound enzymatically active protein compsns. 13.7.77 as 815338 (6pp936)

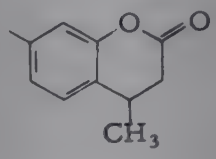
SMIT/ ★ D16 43940B/23 ★US 4155-916
5-Nitro:salicylaldehyde Schiff's bases - detectable fluorescent products for analysis of enzymes which hydrolyse arylamide(s) to arylamine(s
SMITH R E 29.08.77-US-828394
E14 (E13) (22.05.79) C07c-119

5-Nitrosalicylaldehyde Schiffs bases of formula (I) are new:

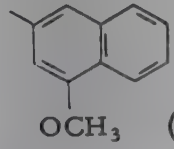
In (I) R is gp. of formula (II), (III) or (IV).



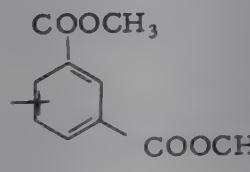
(I)



(II)



(III)



(IV)

(I) are useful as detectable fluorescent products produced in the detection of enzymes. 29.8.77 as 828394 (4pp)

SMED- D16 ✓ 09751Y/06 =US 4156-025
Liq. drinks clarification - such as vinegar and beer, by contacting them with a strongly acid cation exchange resin (NL250177)
SMEDLEY-HP FOODS 22.07.75-GB-030690
*A91 (22.05.79) *DT2632-116 C12h-01/04*

Haze precursors are removed from a fermented beverage such as raw vinegar from grape vine or malted barley and raw light beer, then maturing it.

The fermented beverage in raw state is filtered to remove solids. The filtrate is passed through a clarification tower contg. an ion-exchange resin material in hydrogen form contg. a gellular strongly acidic cation exchange resin of a sulphonated styrene-divinyl benzene copolymer having 8 wt.% divinylbenzene. The clarified beverage is then transferred without further resin treatment to a vessel and allowed to mature.

Method avoids the traditional requirement for large maturation vats provided with beechwood for purification. 5.8.77 as 822278 (+22.6.76-US-698600)(2pp931)

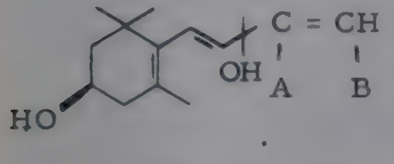
MOGE- ★ D16 ✓ 43983B/23 ★US 4156-026
Improving stability and flavour of wine - by treating separate portions with anion and cation exchangers then blending
MOGEN DAVID WINE 24.07.78-US-927638
(22.05.79) C12h-01/04

Wine is treated by contacting separate portions with (a) a weak basic anion-exchange material, or (b) a strong acid cation exchange material. The treated wines are then blended (opt. together with untreated wines) in such proportions that theblend is stable and has better taste and flavour characteristics than the untreated wine. The method is esp. useful for wines with a strong foxy or wild characteristic, e.g. those from the species Vitis labrusca

Stabilisation (i.e. removal of tartrates) and quality improvement are achieved without the costs of refrigeration and without significantly increasing mineral content.
24. 7. 78 as 927638 (5pp1251)

HOFF D16 84765X/45 =US 4156-100
Optically active (4R,6R)-4-hydroxy 2,6,6 trimethyl-cyclohexanone - prepd. by fermentative hydrogenation of keto-isophorone
HOFFMANN-LA ROCHE INC 16.07.75-CH-009303 (21.08.74-CH-011434)
*B05 E15 (22.05.79) *US3988-205 +C07c-35/18*

New optically active cyclohexene derivs. are of formula (I)



(I)

In (I) A and B are each H or together form C-C bond. (I) are intermediates in the synthesis of carotenoids, useful as colouring agents for foods, cosmetics and pharmaceuticals.

The parent patent describes the prodn. of cyclohexanone derivs. by fermentation in an aq. medium using a microorganism. 7.11.77 as 849138 Div. ex. 3988205, 4095038 (+1.11.74-CH-014674)(+4.8.75. 20.7.76-US-601770, 707146)(15pp924)

KIUC/ ★ D16 44015B/23 ★WP 7900-282
Method of dispersing light in a liquid culture medium - below-surface transmission maintains light dispersion in all culture stages
KIUCHI A 02.12.77-JA-145472 (07.11.77-JA-133867)
P13 (31.05.79) A01g-33 C12b-01/08 C12k-01 C12k-03
D/S: N(BR, SU, US) + E(CH, DT, FR, GB, LU, SW).

Method of dispersing light in a culture medium for cultivation of chlorella, or other algae, is given. Beams of light, e.g., sunlight, are led into a culture medium, e.g., in a tank, by a bundle of optical fibres, or similar light transmission means, which have light-receiving surfaces lying above the level of the culture medium an form branches below the level of and extending through the medium. Each branch defines light radiation surfaces, which, suitably, are larger than the light-receivin surfaces.

Dispersion of light in the medium is maintained even when direct penetration of light is prevented by growth of cultivated material. The efficiency of the cultivation of the algae is increased.
4.11.78 as JA0020 (18pp1412).
(J)ISR: J52105277; J51106783; J4822678; J474635; J4922148.

MITU ★ D16 44023B/23 ★WP 7900-3
Immune function regulator production - genus pholiota psathyrella extract gives immunes function regulator with lo toxicity
MITSUBISHI CHEM IND KK 21.11.77-JA-139733 (18.11.77-J 138649)
B04 (31.05.79) A61k-35/84 C12d-09/04 C12d-13/04
D/S: N(US) + E(CH, DT, FR, GB)

Process in which genus Pholiota or genus Psathyrella is extracted and concentrated gives a substance with good immune function regulation effects but low toxicity. Suitable fungi include Pholiota squarrosa, terrestris, squarrosoides, adiposa, aurivella and flammans, and Psathyrella candolleana, hydrophila, multissima and microspora.
18.11.78 as JA0031 (30pp1412).
(J) ISR: J5244639; J5279087; J53109923.

See Also

D13 DT 2753309
D13 FR 2401684
D13 J5 4052754
D13 J5 4052755
D13 SU 618093
D13 US 4156019
D15 GB 1547033
D15 GB 1547177
D15 J5 4052682
D15 US 4155810
D17 GB 1547223
D18 SU 618097
D21 US 4155868

D17: SUGAR; STARCH

INGR- ★ D17 42722B/23 ★DT 2851-627
Agglomeration of powdered solids, e.g. carbohydrate(s) - comprising spraying aq. medium on to solid entrained in gas stream
INGREDIENT TECHN CO 06.10.78-US-949256 (29.11.77-US-855732)
(D13) (31.05.79) A23c-09 A23l-01 A61k-09/20 B01j-02 C13f-03 C13k-13

Agglomeration of powdered solids in aq. media (I) comprises first spraying (I) on to the powder which is entrained in a gas stream. The two are left for sufficient time to agglomerate the powder and the agglomerate removed from the gas stream pneumatically. The solid is pref. a sugar, esp. sucrose and (I) is pref. a sugar syrup, esp. invert syrup.

In other processes carbohydrates, e.g. arabinose, xylose, inbose, fructose, mannox, galactose, maltose, lactose, starch, powdered milk, cheese powder or solids from corn syrup, molasses, honey or maple syrup are used. The aq. medium then contains 85 wt.% of a binding agent, e.g. propylene glycol, glycerol, erythritol, arabitol, xylitol, adonitol, mannitol, dulcitol, sorbitol, arabinose, xylose, zybose, glucose, mannose, fructose, sucrose, maltose, lactose, dextrose, agar, carragheenan, carob bean meal or guar meal. Up to 20 pts. H_2O are used per 100 pts. solid. 29.11.78 as 851627(24pp903)

NOVO D17 74328X/40 =GB 1547-223
Continuous isomerisation of glucose syrup - to a fructose contg. syrup by passage through immobilised enzyme bed
NOVO INDUSTRI A/S 13.03.75-US-558001
*E13 (D16) (06.06.79) *DT2609-602 C13k-11*

Glucose syrup is isomerised in a continuous process to a glucose-fructose prod. by passing the syrup through a bed of glutaraldehyde immobilised glucose isomerase particles derived from B coagulant.

Glucose syrup has no added cobalt ions, and contains $\not> 10^{-3}$ M calcium ions and $\not> 10^{-2}$ M magnesium ions, the molar ratio of magnesium: calcium being 5-500 for magnesium ion concn. $> 10^{-3}$, and > 5 for magnesium ion concn. $\leqslant 10^{-3}$. Syrup is contacted with bed at a suitable inlet pH and temp. Total contact time is < 3.5 hrs.

Prod. is obtd. contg. $\geqslant$ 40 wt.% fructose w.r.t. glucose-fructose content. Prod. provided does not have a bitter taste nor too much colour w.r.t. intended use of prod. 10. 3. 76 as 009639 (11pp931)

PROT= ★ D17 43660B/23 ★SU -618-414
Inversion of sugar solns. from hydrolysed plant waste - by heating in presence of sulphuric acid and sodium sulphite or bi:sulphite, used in microbiological industry
·PROTEIN BIOSYNTHESI 18.03.77-SU-464535
(22.06.78) C13k-01/04

Sugar solns. obtd. by the hydrolysis of vegetable material are inverted in the presence of H_2SO_4 by heating to 100°-160°C at 0.1-5 atmos. pressure in the presence of Na sulphite and/or bisulphite in an amt. 0.2-10% on dry material wt.

The presence of the (bi)sulphite prevents the decomposition of the sugars and other sol. organics and also the condensation of coloured complexes.
Klimova, Z.K., Belenkii, S.I., Polyakova, L.P. et al.
Bul. 29/5.8.78. 18.3.77 as 464535 (2pp314)

RAND/ ★ D17 43872B/23 ★US 4155-774
Controlling growth rate of sucrose crystals in evaporator - by altering process parameters after measurements of particle conc.
RANDOLPH E A 09.08.77-US-823082
(22.05.79) C13f-01/02 C13a-01/06

ose crystals are grown by evaporating massecuite un- controlled temp. and pressures. During evapn. sam- of the massecuite are withdrawn and divided into two ams. The solids content of one stream is measured the density of particles in the second stream is measur From these measurements the rate of change of the cn. of particles within the liq. is determined and from determination the temp. and pressure are adjusted to ieve a target growth rate.

Pref. the solids content is determined by a polarimeter ssociation with a densitometer. Pref. the density of ticles is determined by counting the particles in a wn vol. of liq. Appts. grows sucrose crystals at an imum rate. 9.8.77 as 823082 (7pp295)

CARB- D17 72801Y/41 =US 4156-076

Lactose conversion to galactose and gluconic acid - with further conversion to ababinose, furfural, arabinitol and galactitol (NL 4.10.77)

CARBOS AG 31.03.76-US-672314

*B05 E13 (E17) (22.05.79) *DT2712-873 C07h-03/02*

Lactose is converted into monocarbohydrates by oxidatively hydrolysing a lactose soln. to form galactose and gluconic acid and sepg. these two components.

Pref. the hydrolysis is with Br_2 and HCl. Pref. the gluconic acid is then oxidatively decarbonylated to arabinose, esp. using H_2O_2 and a source of Fe^{3+} ions. 31.3.76 as 672314 (4pp974)

See Also

D15 J5 4052863

D18 : SKINS ; HIDES ; LEATHER ; TOBACCO

IN D18 66630P/00 =DS 1517-316

llulosic cigarette filter tips with improved

OLIN CORP 31.08.64-US-393815

*A97 +P15 (31.05.79) *FR1446-174 +A24b-15/03*

filter for tobacco smoke comprises a paper base modifd with 5-25(10-15)wt. % of a liquid polyoxyethylene cpd.). Cpd. (I) is a condensn. prod. of nonyl phenol and on verage 9-10 molecules ethylene oxide per molecule nonyl henol or a condensn. prod. of tridecyl alcohol and 15 olecules ethylene oxide.

The filter traps phenols and other harmful cpds. 5.8.65 as 517316 (4pp068).

HON D18 74154Y/42 =DS 2716-562

ltrafiltration of used depilating liquor - to recover protein used as ertiliser and animal foodstuff

RHONE-POULENC INDUSTRIES 14.04.76-FR-011635

*A88 C03 (C04 D13) (31.05.79) *BE-853-560 C14c-01/06*

egeneration of medicated or cosmetic salt baths compris s ultrafiltration using an ultrafiltration membrane having sepn. factor > 5000 (pref. 10000-150000) stable at pH > (pref. > 10). A pref. membrane comprises a sulphonat- d polyarylether and/or sulphonated polyarylether sulphon s.

Pressure differences of 0.4-20 atm. (pref. 1-5 atm.) re employed. The baths are opt. re-treated with sulphide nd/or NaOH. The regenerated baths are used for skin reatment. 14.4.77 as 716562 (10pp047).

HAUN ★ D18 42574B/23 ★DT 2752-865

Applicator esp. for bronze powder to cigarette paper - is compact, leakproof and handles the powder gently

HAUNI-WERKE KORBER KG 26.11.77-DT-752865

P15 P42 (31.05.79) A24c-05/60 B05c-01/08 B05c-19

A powdered pigment, esp. bronze powder is applied from a storage container by means of a mechanical conveyor to prepared positions on a running strip of cigarette paper; the conveyor feeding the powdered pigment to the applicator being a spiral and for pref. is a screw. The bristles of a brush engage in the grooves between the spirals of the screw conveyor.

Used for the application for pref. of bronze powder to strip-form enveloping materials for tobacco products generally, including rod filters. The device ensures sealing so that the escape of the powder is prevented whilst the least possible mechanical loading is applied to it. The clog-ging of powders such as bronze is prevented by a brush the bristles of which clear the thread grooves of the screw conveyor. 26.11.77 as 752865 (9pp1045)

DEWA/ ★ ⁷ D18 B/23 ★HU H002-438

Treatment of sheepskin and wild animal pelts - using formaldehyde and microdisperse pigmentation spraying prior to ironing

DEWATH M 18.10.78-HU-DE0980

(28.05.79) C14c-03/16

NISB ★ D18 43131B/23 ★J5 4052-798

Removing nicotine from tobacco - using ammonia gas under specified conditions

JAPAN TOBACCO & SALT PUB 29.09.77-JA-116116

E35 P15 (25.04.79) A24b-15/04

The method uses ammonia gas and comprises contacting tobacco with wet ammonia gas-air mixt. having ammonia gas concn. 0.002-0.006 kg/m^3 and humidity 60-85% RH at 65-90°C with the velocity 0.2-0.6 m/sec.

By selecting the treating condition properly and effecting the treatment at lower temp. both the removal of nicotine and the improvement of the taste and flavour of the tobacco can be attained. 29.9.77 as 116116 (5pp5)

KSPO= ★ D18 43489B/23 ★SU -618-097

Fermenting prepressed and warmed tobacco - includes simultaneous cooling and final pressing, to reduce process time

KISH POLY 18.03.77-SU-464443

P15 (D16) (03.07.78) A24b-03/12

Fermentation time is reduced by warming the loosened tobacco mass, prepressing into a strip, holding at ferment-ation temp. and humidity, and then simultaneously cooling and finally pressing into bales.

After loosening the mass is pref. heated to 10-15° above fermentation temp. and is conditioned to the required moisture content before passing to a press with rotating rolls for prepressing to a density of 200-240 kg/m^3 in a continuous strip the width of a bale. The strip is cut into plates which are stacked into bales for fermentation. The final pressing gives a density of 500-600 kg/m^3.

Sazhin, F.M. Bul. 29/5.8.78. 18.3.77 as 464443 (2pp 1358)

ORLO= ★ D18 43661B/23 ★SU -618-415

Helical blades roller assembly - includes contoured strips matching roller grooves with pressing serrated wedges

ORLOVKA RES INST 01.10.74-SU-426115 (01.10.74-SU-063582)

(25.07.78) C14b-17/08

Faster fixing and stripping of blades in the roller used in leather and fur industry are ensured with two securing strips of each groove. One strip forms the caulking band whose outside contour matches the shape of the roller groove. The other strip is wedge-like, and is fitted inside the caulking band. The sides of the wedge strip exhibit rolled-on serrations.

The helical blades are secured in the corresp. grooves of the roller with the caulking strip expanded by the wedge whose serrations enhance the contact adhesion.

Vlasov, M.G., Ananev, V.D. Bul. 29/5.8.78. 1.10.74 as 063582 (2pp89)

See Also

D23 DT 2752972

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL ; TOILET PREPARATIONS

NADI/ ★ D21 42485B/23 ★CH -611-157

Hair lotion prodn. - by macerating birch and nettle leaves in alcohol then adding wheat or pumpkin oil, eucalyptus essence, birch sap and beer

NADIG G 15.09.75-CH-012244

(31.05.79) A61k-07/06

The lotion is prepd. by first macerating birch leaves and nettles in alcohol. The following ingredient(s) are then added: wheat oil, pumpkin oil, eucalyptus essence, birch sap and/or beer. Maceration is pref. for 3 weeks. Pref. all the specified ingredients are added.

In an example, 100g. birch leaves and 100g. fresh nettle leaves are macerated in 1l. alcohol. After three weeks the prod. is filtered and 3 ml wheat oil, 3ml. pumpkin oil, 3ml eucalyptus essence, 3ml birch sap and 50ml beer are added, the prod. shaken vigorously and then bottled. 15.9.75 as 012244 (2pp903)

GABA D21 83502W/51 =DS 2523-363

Oxyphosphorus acid-contg. oral/dental care formulation - prevents dental caries and hinders plaque formation

GABA AG 31.05.74-CH-007516

*A96 E11 (31.05.79) *DT2523-363 A61k-07/18*

Mouth and teeth care agent contains a salt of orthophosphoric acid, pyrophosphoric acid or a metaphosphoric acid or a mixed salt of one of these phosphoric acid and hydrofluoric acid with an organic base.

The agent helps to stop the formation of plaque and dental caries. 27.5.75 as 523363 (6pp068).

RARE= D21 36820Y/21 #DS 2615-399

Gallium copper tin dental filler alloy - prepd. using copper tin alloy of critical size and increased amt. of liq. gallium tin alloy

RARE METALS IND RES (STOM=) 12.04.76-GB-014888 (08.04.76-DT-615399)

*M26 (31.05.79) *GB1474-683 A61k-05/02 C22c-30/04*

A mixt. for filling teeth is obtd. by mixing a eutectic liquid gallium-tin alloy with 11% tin with Cu_3Sn powder. The final mixt. contains 36-40% gallium, 26-27% tin and 34-37% copper. The Cu_3Sn powder has a particle size of at most 40μm and 55-70 wt.% of the powder has a particle size under 20μm.

The mixt. has increased plasticity. 8.4.76 as 615399 (4pp068).

ZEIS/ ★ D21 42519B/23 ★DT 2752-332

Melting lost wax patterns out of casting crucibles - with rapid cooling of wax to avoid fumes, esp. in mfg. dental prostheses

ZEISER M 23.11.77-DT-752332

M22 P53 (31.05.79) B22c-09/04

The appts. consists of a hollow, C-shaped frame made of sheet metal. The upper arm of the frame contains a grid on which the crucible is placed so the wax can run out of its spout; and in the upper arm is a fan and an electric heater generating a current of hot air which heats the crucible and melts the wax.

The molten wax flows downwards into a metal dish resting on the lower arm of the frame and not exposed to the current of hot air; the metal dish may also be cooled. The underside of the upper arm of the frame pref. has a gap below the grid so the molten wax can flow downwards into the dish in which rapid cooling occurs.

Used for mfg. lost wax castings, esp. in a dental laboratory. The wax is rapidly cooled so no noxious fumes are evolved; this means that a fume extn. duct is not required in the laboratory. 23.11.77 as 752332 (19pp1144)

GIUL- ★ D21 42569B/23 ★DT 2752-852

Dentifrice contg. fine poly:phosphate granulate - e.g. sodium tri:phosphate, to remove tartar and smoking stains

GIULINI CHEMIE GMBH 26.11.77-DT-752852

(31.05.79) A61k-07/16

Dentifrice compsns. having reinforced activity w.r.t. t quick removal of tartar and/or tooth discolouration caus by smoking consist of or contain up to 100% fine polypho phate granulate having formula $Na_{n+2}P_nO_{3n+1}$ (where n ≥

The granulate is non-hygroscopic and can be stored under bathroom humidity conditions. When brushing tee the granulate dissolves, chemically attacks tartar and breaks it up without damaging dental enamel. 26.11.77 a 752852 (5pp200)

SHIR- ★ D21 42823B/23 ★J5 4037-0

Calcium carbonate granules coated with calcium phosphate - ha improved acid resistance and are used in tooth paste, foodstu paint, paper, rubber, etc.

SHIRAISHI CHUO KENK (SHIR-) 27.08.77-JA-103098

A60 E33 G01 (19.03.79) C01f-11/18

The surfaces of $CaCO_3$ granules are coated with a Ca pho phate cpd. ,having acid-resistance to improve its acid re -tance and to lower its pH value by adding an alkali meta polyphosphate, e.g. Na methaphosphate, Na pyrophosph etc. to an aq. suspension of $CaCO_3$, and subsequently ad ing under agitation thereto an aq. soln. of Ca salt, e.g. $CaCl_2$ and Ca $(NO_3)_2$etc. to deposit the Ca phosphate cpd. having on the surfaces of the $CaCO_3$ granules. This is o followed by water-washing, filtration, drying and pulver ation. The $CaCO_3$ granules thus obtd. are suitable for u in e.g. rubbers, plastics, paints, papers, foodstuff and tooth paste, etc.

The amt. of the polyphosphate is within a range of 2. and 40.0 mg per 1 m^2 of the surface area of the $CaCO_3$ granules, calculated in terms of P_2O_5. 27.8.77 as 1030 (2pp34)

NISH/ ★ D21 43052B/23 ★J5 4052-61

Dental casting alloy prodn. - by heating mixt. of potassiu per:rhenate, titanium oxide, silicon oxide and silver, forming ing and forging

NISHIMIYA T 04.10.77-JA-119142

M22 P32 (25.04.79) A61c-13 C22c-05/08 C22f-01/14

Process comprises first heating a powdery mixt. of (a) 10-12% K perrheniumate, (b) 4-5% Ti oxide; (c) 1-2% Si oxide and (d) 82-83% Ag to 1700-2000°C while stirring fo > 30 min. An ingot is formed from the solid soln. and forged while heating to >800°C.

Pref. the crucible for making the solid soln. and the mould for forming the ingot are of thorium oxide. Alloy is suitable for co-brazing. 4.10.77 as 119142 (3pp53)

POKK ★ D21 43115B/23 ★J5 4052-73

Skin cosmetics - contg. soluble collagen, and hyaluronic acid chondroitin tetra- or hexa:sulphuric acid

POLA KASEI KOGYO KK 04.10.77-JA-118569

E19 (25.04.79) A61k-07

Skin cosmetics contain (a) > 1 of hyaluronic acid, chondroitin tetrasulphuric acid, chondroitin hexasulphuric aci and their salts and (b) > 1 soluble collagen.

The cosmetic increases the water-holding property of skin and softens and makes skin elastic. It can keep goo water-holding property even under low humidity conditio The soluble collagen can be kept undenatured. It can protect and beautify skin without harmful effects even using continuously for long time. 4.10.77 as 118569 (6pp5)

KANE ★ D21 43116B/23 ★J5 4052-73

Cream or milk-like skin cosmetics - contain glyceryl-oleyl ether, oil substance and water

KANEBO KK 28.09.77-JA-117141

E17 (25.04.79) A61k-07

The cosmetics contain (a) 0.1-30 (1-20) wt.% glyceryl-oleylether, (b) 5-70 (10-50) wt.% of oily substance and (c 10-90 (40-80) wt.% water.

bility, emulsion stability, preservative stability, glossi ess, texture, safety, etc. and can be used without stim- s to skin.

The oily substance is hydrocarbon, animal in vegetable , fat, wax, higher alcohol, higher fatty acid in ester oil. e cosmetics can be prepd. by melting the mixt. of gly- ryloleylether and oily substance with heating, adding ter with stirring and emulsifying the mixt. 28.9.77 as 7141 (7pp5)

IS ★ D21 43117B/23 ★J5 4052-736

anicure compsn. - contg. polymer emulsion of specific particle e as base

SHISEIDO KK 30.09.77-JA-118017
A96 (25.04.79) A61k-07/04

anicuring agent contains 5-60 w/w% (as solid) of the poly- er emulsion having particle size < 0.1 μ as the base. s polymer emulsion, the emulsion of acrylic polymer, VAC, vinylacetate copolymer, vinylacetate-vinylidene- hloride polymer, olefin polymer, etc. can be used. In e case of aq. nail enamel and aq. nail enamel overcoat, e micro-polymer emulsion is combined on an amt. of 5-60% for attaining the film excellent in glossiness. In e case of aq. nail enamel base coat, the micro-polymer mulsion is combined in an amt. of 5-25% for attaining ood adhesion and hard film. 30.9.77 as 118017 (7pp5)

UMO D21 07508Y/05 =J7 9011-638

orcelain dental crown using metal substrates - onto which llasamma burner deposits bonding and ceramic layers as base for orcelain

SUMITOMO CHEMICAL KK (MATS-) 22.07.75-JA-089781
*L02 M13 P32 (16.05.79) *BE-844-361 A61c-13/08 C23d-05/10*

Porcelain is fused to a metal crown and presenting a com- posite structure of layers of a binder and a ceramic which are hot sprayed onto the metal crown, followed by a layer of fused porcelain. The ceramic pref. consists of alumina and/or ZrO_2. The composite structure may also consist of layers of (a) binder; (b) binder mixed with ceramic, (c) ceramic and (d) ceramic mixed with porcelain, all applied by hot spraying before the layer of fused porcelain; (b) s binder plus ZrO_2 and (c) contains (by wt.) 10-100% ZrO_2 plus 90-0% Al_2O_3.

The porcelain has high strength and does not discolour after use in the human mouth, nor does it have any detrimental affect on the human tissue round the tooth. The metal crown is pref. cast to shape and numerous proprietary alloys based on Co, Ni or Au may be employed. 22.7.75 as 089781 A61c-13/08, C23d-5/10 (16.5.79 SUMITOMO CHEMICAL KK (4pp1144)(J52014092)

JOHJ ★ D21 43917B/23 ★US 4155-868

Stable, water soluble denture cleaner tablet - contg. enzyme, active oxygen cpd., lubricant, and effervescent compsn.

JOHNSON & JOHNSON 02.03.77-US-773621 (22.12.75-US-643044)
A96 (A25 D16) (22.05.79) C11d-03/39 C11d-07/54

Stable H_2O-soluble denture cleanser tablet providing enzymatic and active O_2 cleansing action consists of (all by wt.) (a) 0.8-3.5% of a neutral bacterial protease (I) (ca 3 Anson Units activity); (b) 30-50% of $\geqslant 1$ active O_2 cpds. (II) which form H_2O_2 or nascent O_2 when placed in soln.; (c) 45-65% of $\geqslant 1$ effervescence-producing compsns. (III); and (d) 0.1-5% of $\geqslant 1$ H_2O-soluble lubricants (IV).

(II) are suitably $NaBO_3.H_2O$, $NaBO_3.4H_2O$, $K_2S_2O_8$, Na carbonate peroxide, diperisophthalic acid, K peroxydiphosphate, or Na Al aminohydroperoxide. (III) are CO_2 generating mixts. contg. an H_2O-soluble organic acid (citric, tartaric, gluconic or malic acids), and an alkali metal (bI)carbonate ($NaHCO_3$, $KHCO_3$, Na_2CO_3 or K_2CO_3). (IV) are Mg lauryl sulphate opt. mixed with polyethylene glycol of mol. wt. 6000-20,000. Tablets have H_2O-content $\ngtr$ 0.1%, and on soln. in aq. medium have pH 6-7.5.

H_2O-soluble tablet is stable to storage and gives superior cleansing power in a shorter time than conventional compsns. 2.3.77 as 773621 (8pp478)

MINN ★ D21 43919B/23 ★US 4155-870

Non-abrasive skin cleaning compsns. - contain conventional skin cleaning base, and glass bubbles

MINNESOTA MINING CO 21.04.77-US-789666 (19.04.76-US-678413)
(D25) (22.05.79) C11d-03/14 C11d-09/20

Skin cleaning compsn. consists of a conventional skin cleaning base (I) and 0.3-32% by wt. of H_2O-insoluble glass bubbles (I) of average size $\nless$ 50 μ. (II) have density 0.05-1.0 pref. 0.1-0.5 g/cc; crush strength (10% collapse in glycerol) $\nless$ 250 psi, pref. > 1000 psi for bar soaps; and size 20-200 pref. 50-80 μ. Pref. amts. (II) used are 1-7% by wt. for lotions or creams, or 2-12% by wt. for bar soaps. 21.4.77 as 789666 (6pp438)

HOFA/ D21 78561A/44 =US 4155-890

Dental and surgical materials - contg. polymer solns. or pastes in (meth)acrylate monomer and metal soap and/or silicate (NL 24.10.78)

HOFACKER-FREIFRAU F 22.04.77-DT-718017
*A96 P24 P32 (A14 D22) (22.05.79) *DT2718-017 C08f-20/06 C08l-33/08*

In a polymerisable compsn. for mfg. elastic, soft or hard plastic for dental and related purposes, comprising a mixt of $\geqslant 1$ (meth)acrylate (co)polymer in $\geqslant 1$ (meth)acrylate monomer, and $\geqslant 1$ additive, the improvement comprises that the compsn. contains a metal soap component present in amt. to improve dimensional stability and surface quality.

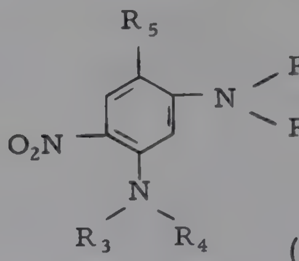
Pref. the compsn. also contains a metal silicate. Compsn. produces smooth odour-free surfaces, exhibiting tissue tolerance, mechanical strength and freedom from taste, etc. after being worn for a long time. 18.4.78 as 897536 (5pp393)

OREA D21 38620R/22 #US 4155-934

Hair dye compounds and compns

L'OREAL SA 19.10.66-LU-052201 (01.12.66-US-598179)
*E24 (22.05.79) *CA-842-869 C07c-87/68*

A water-soluble hair dye tert. extranuclear amine quat. ammonium salt of a cpd. of formula (I) is new.



(I)

In the formula, R_{1-4} are each H, 1-4C alkyl or tert. extranuclear amine $-(CH_2)_n-NR_6R_7$. R_6 and R_7 are each 1-4C alkyl; n is 2-6; only one of the radicals R_{1-4} is the tert. amine; R_5 is H, 1-4C alkyl, halogen or 1-4C alkoxy.

Cpd. is used in hair colouring compsns., and is able to produce an intense yellow or slightly greenish shade on treated hair, esp. after impregnation for 5-30 mins. 18.2.75 as 550583 Div. ex. 3904690; C.i.p. 3560136 (+8.9.70-US-070480)(8pp931)

STER- ★ D21 43957B/23 ★US 4155-964

Semi-finished prosthetic dental preforms prodn. - by moulding repulverised porcelain contg. binder, then coating and baking

STERNDENT CORP 11.05.77-US-795930
A96 P64 (A18) (22.05.79) B28b-01/20 B29c-05/04

Semi-finished prosthetic dental preforms are made by first repulverising, by spray drying, a dental porcelain mixt. (A) which includes a binder-plasticiser (I) and lubricant. This material is then moulded to the required shape, and then a coating of incisal or occlusal dental porcelain applied to parts of the exterior surfaces.

The moulded prod. is then heated and baked to completely burn out the binder giving a hard concretious material. The binder is 14-18 wt.% of (A) and includes 10.5-8.5% EVA resin, 5.3-3.9% mineral seal oil and 2.2-1.6% stearic acid. Pref. the casting is removed from its mould by applying a pressurised fluid.

Used esp. for making prosthetic crowns. Method gives greater accuracy, esp. in mass prodn. 11.5.77 as 795930 (10pp1251)

KEWA ★ D21 43971B/23 ★US 4155-994
Conditioning hair - using condensation prod. of 1,4-di:chloro-2 butene and 1,4-bis-di:methylamino-2-butene
KEWAUNEE MFG CO 21.01.77-US-761320
A96 (22.05.79) A61k-07/06

Conditioning hair consists of applying an emulsion contg. a condensation prod. (I) of 1,4-dichloro-2-butene (II) and 1,4-bis-dimethylamino-2-butene (III) in mol. ratio 1-2:2-1.

(I) is non-toxic, non-irrating to eyes and skin, and is not a prim. irritant. (I) gives a smooth feel to hair, facilitates hair combing and detangling, but does not give rise to a build-up of insol. cpds. on hair. In addn., (I) is compatible with a range of surfactants and emulsifiers (cationic, nonionic, amine oxide, amphoteric, betaine, alkylalamide, etc.), and may beused in clear or opaque rinses or shampoos that may contain high-lathering surfactants. 21.1.77 as 761320 (4pp478)

TYND- D21 04379B/03 =US 4156-066
Polyurethane polyether contg. lactone gps., or hydroxy and carboxy gps - useful e.g. as carriers for pharmaceuticals, cosmetics, contact lenses, surgical sutures, treatment of burns, implants, prostheses etc.
TYNDALE PLAINS-HUNT (GOUN) 23.06.77-US-809260
A 2 5B 0 7C 0 3P 3 2P 3 4R 2 3
*(A85 A88 A96 D22) (22.05.79) *DT2827-450 C08g-18/34*

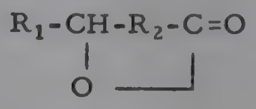
Novel polyurethane polyether resins have lactone gps. in the polymer backbone. Pref. they also have OH gps. in the backbone.

They may be used as carriers for releasing cpds. into water, body fluids or gases esp. air, or in photosensitive coating compsns., or anti-fouling or drag-reducing paints or asbum dressings. 23.6.77 as 809260 (6pp974)

TYND- D21 04379B/03 =US 4156-
Polyurethane polyether contg. lactone gps., or hydroxy and carb gps - useful e.g. as carriers for pharmaceuticals, cosmetics, con lenses, surgical sutures, treatment of burns, implants, prosthe etc.
TYNDALE PLAINS-HUNT (GOUN) 27.12.77-US-864715 (23.06. US-809260)
A 2 5B 0 7C 0 3P 3 2P 3 4R 2
*(A85 A88 A96 D22) (22.05.79) *DT2827-450 C08g-18/34*

Novel hydrophilic polyurethane polymers are the reacti prod. of (A) > 1 diol of equiv. wt. 100-3000, (B) a poly functional lactone of formula (I)or an ether derived from (I) and (C) a urethane precursor.

(A) is diethylene glycol, long-chain polyoxyalkylene diol, a linear polyester diol obtd. by condensing diol(s) with dibasic acid(s) or the reaction prod. of the last wit alkylene diol(s). (C) is an organic polyisocyanate or nit rile carbonate.


$R_1\text{-CH-}R_2\text{-C=O}$

(I)

In (I), R_1 is H, $CHNH_2$, SO_2C CHOHCOOH or $(CHOH)_nCH_2OH$; n = 0-5; R_2 is $(CHOH)_m$; m = 2-1

Prods. are used e.g. as light sensitive photographic layers, i drug delivery systems, as burn dressing, in body implants, adhe ives, artificial fingernails and drag-resistant coatings. 27.12.77 as 864715 (15pp974)

See Also

D13 DS 2337765
D13 US 4156090
D23 DT 2752972
D13 J5 4051984
D15 J5 4052682
D13 US 4156077
D22 DT 2752253

D22: BANDAGES; DRESSINGS

STEF/ D22 04361A/03 =DS 2629-381
Feminine hygiene tampon mfr. - involves feeding matched lengths of cotton wool and cord into a winding spindle
STEFFENS B 30.06.76-DT-629381
*F04 P32 (31.05.79) *DT2629-381 A61f-13/20*

Tampons are produced in a continuous operation, without difficulties with the recovery thread, a secure hold for which on the finished tampon is assured. The sheet of wadding is fed forward in a roughly horizontal plane and a thread from a spool is laid on the sheet to be drawn with it and cut to length to form the recovery thread.

Part of the thread is pressed onto the wadding whilst the other part is turned over pneumatically or mechanically; a piece of wadding being torn off simultaneously, and then rolled up. 30.6.76 as 629381 (6pp1045).

WITT/ ★ D22 42505B/23 ★DT 2731-969
Baby diaper in form of pants - has seat subdivided by partition wall into two large chambers for separate adsorption of urine and faeces to prevent rash
WITTKOWSKI H 15.07.77-DT-731969
F07 P21 (31.05.79) A41b-13/04

Disposable baby diaper in the form of pants has the seat of the pants subdivided by a partition wall into two large chambers for adsorption of urine and faeces, respectively, the enlarged size of the chambers ensures that the urine does not come into contact with the anal passage. Contact induces rash. 15.7.77 as 731969 (4pp536)

SCHU ★ D22 42512B/23 ★DT 2752-253
Preservative and disinfectant compsns. e.g. for cosmetics - contain aminomethyl (thio)ether prepd. by reacting sec. amine, formaldehyde and (thio)alcohol
SCHULKE & MAYR GMBH 23.11.77-DT-752253 (00.00.76-DT-651465)
E19 H07 P34 (D21) (31.05.79) A61k-07 A61l-13

The compsns. contain ≥1 aminomethyl ethers or -thioethers, (I), prepd. from sec. amines, HCHO and alcohols or thioalcohols. (I) have formula $R^1R^2N\text{-}CH_2\text{-}X\text{-}R^3$ (where X is -O- or -S-; R^1, R^2 and R^3 are opt. substd. aryl and aralkyl gps. and opt. substd., opt. unsaturated, linear, branched or cyclic aliphatic ≤ 12C gps., the C chain of which can be interrupted by O, S or N atoms. R^1 and R^2 together with the N atom can also form cyclic or polycycli ≤ 8C gps. which may contain O, S and N as further heter oatoms and may carry substituents of the R^1, R^2 and R^3 type) and/or consist of their salts with inorganic and/or organic acids.

(I) are used partic. for inhibiting germ growth in cosmetic compsns. and industrial solns., e.g. drilling or cutting oil emulsions. They have high anti-microbial activity and cause no smell and no skin irritations. In concns. ≤ 0.1%, (I) have bactericidal, fungicidal and algicidal activity, e.g. min. inhibiting concn. of diethyl amin -methyl ethyl(I*) in aq. solns. is 0.05% for Staphylococcu aureus, Escherichia coli, Pseudomonas aeruginosa, Bacillus subtilis, Aspergillus niger and Candida albicans. 23.11.77 as 752253 Add to 2651465(25pp200)

RITT- ★ D22 42537B/23 ★DT 2752-481
Mobile or stationary multi-purpose disinfector decontaminator - feeds chemical additives directly into delivery lines reducing corrosion
ODENWALDW RITTERS 24.11.77-DT-752481
K07 P35 (31.05.79) A62d-03 G21f-09

Mobile or stationary installations are provided with a disinfecting and decontaminating device which delivers a fluid mixture. It consists of a water tank to which a piping system for supplying showers, sprays, hoses, etc. is connected. There is a circulatory heater followed by an arrangement for mixing in chemical emulsions. Drawing off points are provided in front of and behind the mixer which has a sepg. float and is connected to an injector.

Used for the application of disinfecting and decontaminating agents, for the distribution of combat materials in the gps. A, B, C, as well as for fire-fighting foams, etc. Premature corrosion and wear of the pumps and valves prevented by the accurately controlled mixing and in-tion into the flow immediately before the branch lines he points of consumption. 24.11.77 as 752481(7pp1045)

E ★ D22 42560B/23 ★DT 2752-778

inated disposable diaper and sanitary towel - built-up of forated, embossed polyolefin film, fluid-absorbing pad, and erproof film ply

DEUTSCHE BP AG 25.11.77-DT-752778

A94 P21 P73 (A17 A96) (31.05.79) A41b-13/02 B32b-03/30

minate for covering absorbent material comprises ⩾1 n ply with projections and ''openwork'' zones. The lam-ite has ⩾2 openwork plies one of which has projections ich face the other ply in contact with it, thus defining a twork of open capillaries between the plies. The open-rk zones of either ply are staggered w.r.t. the other thout any overlapping.

Used for mfr. of disposable diapers, catamenial pads. lows easy access of fluid to absorbent material whilst inimising leakage even under relatively elevated pres-re. The plies are made of (co)polyolefin film and may be nded together by spot or seam-welding. 25.11.77 as 2778 (12pp267)

RB ★ D22 42564B/23 ★DT 2752-821

y spun hydrophobic fibres with high water retentivity - have core-antle structure and high porosity and are useful for tampons and her absorbents

BAYER AG 26.11.77-DT-752821

A94 F01 (A14 A96) (31.05.79) D01f-06/18 D01f-08

ry spun hydrophobic filaments or fibres with core-mantle ructure consist of hydrophobic, fibre-forming, synthetic lymer, pref. an acrylonitrile polymer, with a porosity f min. 50%, a water retentivity of min. 100% and a Hg ensity of max. 0.7 g/cm^3.

The fibres are like wadding and are useful as self-bsorbent fleeces and pads, e.g. as tampons, for the re-oval of harmful liquids at waste disposal tips and as lint nd bandage. They combine lightness in wt. with comfort n wear, making them suitable e.g. for clothing for aero-pace applications. 26.11.77 as 752821 (17pp016)

EMS- ★ D22 42605B/23 ★DT 2753-263

ltraviolet ray sterilisation for hydraulic fluids - in inclined tray with eflecting ribs and baffle plates

HEMSCHEIDT MASCH H 30.11.77-DT-753263

H07 P34 (31.05.79) A61l-03 C10m-11

Aq. emulsions with a water content of 80-99% which are used as the working medium in hydraulic systems are sterilised by ultraviolet radiation. During the irradiation, the fluid runs down an inclined tray with vertical ribs across its bottom and, offset relative to them, baffles with an adjustable gap at the bottom.

This kills the microorganisms which cause slime and flocks, leading to the formation of corrosive acids and gases. 30.11.77 as 753263 (7pp39)

HENK D22 08337A/05 =GB 1547-001

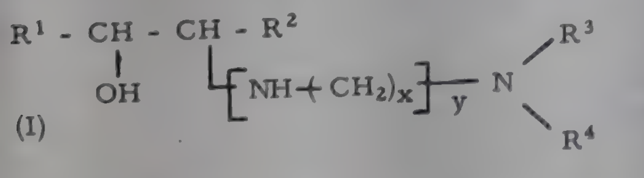
Antimicrobial compsn. for treating industrial water - comprising olefin epoxide amine reaction prod. and poly:alkylene oxide

HENKEL KG AUF AKTIEN 29.07.76-DT-634051

*A97 P34 (A25 D15) (06.06.79) *BE-857-258 +A01n-17*

An antimicrobial agent for the treatment of industrial and domestic water is prepd., which comprises a combination of vicinal aminoalkanols of formula (I) and a water soluble block polymer of ethyleneoxide/propyleneoxide.

In (I), R¹ and R² are H and/or 1-18 unbranched alkyl, where sum of C in $R^1 + R^2$ is 9-18C. R^3 and R^4 are each H, 1-4C alkyl or hydroxyalkyl. x is 2-6, y is O or 1.



(I)

$$R^1-\underset{\displaystyle OH}{\underset{|}{CH}}-CH-R^2 \quad \left[NH-(CH_2)_x\right]_y-N\begin{matrix}R^3\\R^4\end{matrix}$$

Vicinal aminoalkanols are in the form of mixts. having differing chain lengths of 11-20C, and which when both R^1 and R^2 are unbranched alkyl radicals may have differing positions of the vicinal substits. on the hydrocarbon chain and/or its salts. Block polymer has average mol. wt. of 500-10,000 and molar ratio of ethyleneoxide to propylene-

polymer is 10-1:1.

Used esp. in swimming pools, coolant circuit water, washer water in air conditioning plants. etc. 28.7.77 as 031706 (5pp931)

SCHD D22 96287X/52 =GB 1547-258

Biocidal compsns. contg. (new) diptycho tin cpds. - e.g. 1,1-diisobutyl diptycho oxazastannolidine, useful as disinfectants, textile finishes etc.

SCHERING AG 16.03.76-DT-610931 (14.06.75-DT-526711)

*A60 C01 F06 +P34 P63 (06.06.79) *BE-842-937 A61l-13 C07f-07/22*

A bactericidal or fungicidal preparation comprises a cpd. of formula

$R_1R_2Sn\ (X - (R_4)\ C\ (R_3) - CH_2)_2\ NRS$ (I) with a carrier.

In (I) R_1 and R_2 are each (substd.) 1-10C aliphatic hydrocarbon or aromatic gp.; R_3 and R_4 are each H, (substd.) 1-10C aliphatic hydrocarbon or together form oxo, or one of them is (substd.) aromatic gp.; R_5 is H or as R_1 and R_2; and X is O or S.

Compsns. are esp. used as disinfectants for synthetic plastic or textiles, or as biocidal paints. 14.6.76 as 024524 (10pp976)

MONM/ ★ D22 42896B/23 ★J5 4051-968

Improving condition of air in factories, automobiles etc. - generating oxygen and perfume smell by mixing perfume with hydrogen peroxide and adding catalyst

MONMA K 03.10.77-JA-117919

G04 P34 (24.04.79) A61l-09/10 B01j-07 B01j-23/34 C09k-03

Method comprises mixing perfume and H_2O_2 soln. and adding catalyst to the mixt. As catalyst MnO_2 is used, and as perfume, peppermint, brandy etc. is used. The concn. of H_2O in the soln. is usually $<$ 6%. 3.10.77 as 117919 (3pp42)

SANY ★ D22 43110B/23 ★J5 4052-725

Dichlorofluanide or N-(dichlorofluoromethyl-thio) phthalimide soln. - prepd. with addn. of PVP and/or PVP-vinyl acetate copolymer to organic solvent soln.; useful as antiseptic

SANKYO KK 30.09.77-JA-117405

A97 C03 F09 P63 (25.04.79) A01n-09/12 A01n-17/08 B27k-03/34

Prepn. of high concn. soln. of dichlorofluanide (I) or N-[(dichlorofluoromethyl)thio] phthalimide (II) comprises dissolving PVP and/or PVP-vinyl acetate copolymer in an organic solvent soln. of (I) or (II).

(I) and (II) are white crystalline powder and are insoluble in water, and have a low solubility in organic solvent. The soln. has a low toxicity and is used as antiseptics and insecticide for woody material.

Organic solvents include, e.g., xylene, lamp oil, solvent naphtha, methylnaphthalene, monochloronaphthalene, cyclohexanone, methylcyclohexanone, acetophenone, dioxane, methylene chloride, chloroform, trichloroethylene, etc. Lamp oil, xylene, methylnaphthalene, cyclohexanone, methylene chloride are pref. from the viewpoint of solubility, toxicity and cost of the solvent. PVP has the mol. wt. of 10,000-360,000 (40,000-160,000). PVP to vinyl acetate ratio is 7:3-2:8, pref. (7:3-5:5). 30.9.77 as 117405 (3pp108)

TEIJ D22 00594V/01 =J7 9010-976

Pressure sensitive adhesive - for adhesive tapes and medical dressings

TEIJIN KK 14.06.72-JA-058582

*A14 G03 (11.05.79) *NL7308-139 +C08f-220/18 C09j-03/14*

Pressure sensitive adhesive contains as main component a copolymer of (I) 94-98 mole% of at least one alkyl acrylate with a 1-14C alkyl gp., the average no. of C atoms being 4-12, esp. 2-ethylhexyl acrylate, or a mixt. of this alkyl acrylate with methyl methacrylate and/or vinyl acetate in a molar ratio from 5 to more than 1, (II) 2-6 mole % (meth)acrylic acid, and (III) 0.001-0.05 mole % polyfunctional cpd. which is copolymerisable with monomers I and II, and contains at least two non-conjugated carbon-carbon double bonds per molecule. 14.6.72 as 058582 C09j-3/14;C08j-220/18 (11.5.79) TEIJIN LTD. (7pp) (J49018924)

KOBA/ D22 72922X/39 =J7 9011-365
Medical plastic mfr. - by forming paste contg. colloidal gelatin and aq. dialdehyde starch adduct, spreading on cloth and covering with polyethylene film
KOBAYASHI K 05.02.75-JA-014441
*A96 + P34 (15.05.79) *J51091-318 A61k-09/70 +A61l-15*

Method comprises stirring an aq. colloidal gelatin with an aq. soln. of dialdehyde starch to form an adduct. The adduct is then combined with a wetting agent, a stimulating agent, an anti-allergic agent and an adhesive. The resulting paste-like substance is spread on a cloth or non-woven fabric and the surface covered with polyethylene film. The gelatin adduct is capable of holding much water even at a high temp. 5.2.75 as 014441 A61k-9/70; A61l-15 /00 (15.5.79) KOBAYASHI K (4pp)(J51091318)

ANNE ★ D22 43381B/23 ★J7 9011-640
Catamenial tampon - includes film of resin consisting of PVA, poly:ol and latex or emulsion of water-insoluble resin
ANNE KK (NISY) 04.07.70-JA-058148
A96 P32 (16.05.79) A61f-13/18

The tampon includes, as a leak-proof film, a continuous film of a resinous mixt. consisting of 100 pts. wt. of PVA resin, 15 to 60 pts. wt. of a polyhydric alcohol solid at room temp. and 1 to 20 pts. wt. of a latex or emulsion of a water-insoluble resin. The leak-proof film is flexible over a wide temp. range.

The solid polyhydric alcohol is pref. pentaerythritol, trimethylolethane, trimethylolpropane, neopentyl glycol or sorbitol. The latex or emulsion of water-insoluble resin is pref. a paraffin emulsion, a polyethylene emulsion, a wax emulsion, a rubber latex, a silicone emulsion or an acrylic ester emulsion.

Typically, the resinous mixt. consists of 100 pts. wt. of PVA having a DP of 1680 and a saponification value of 92 mol.%, 30 pts. wt. of trimethylolpropane, 10 pts. wt. of a low mol. wt. polyethylene emulsion and 0.5 pts. wt. of an anion surfactant. 4.7.70 as 058148 A61f-13/18 (16.5.79) ANNE KK; NIPPON SYNTH CHEM KK (5pp86)

SENE= ★ D22 43572B/23 ★SU -618-282
Wood decay and self-ignition preventing compsn. - contg. sodium penta:chloro-phenolate, boric acid and calcined soda powder mixt. for stability
SENEK WOOD MECH PRO 04.01.77-SU-442172
C01 E12 F09 P63 (C03 E36) (19.07.78) B27k-03/52

Wood preservation compsn. contg. sodium pentachlorophenolate and boric acid with the addn. of calcined soda prevents wood decay and spontaneous ignition. The addn. of calcined soda improves the weather-resistance of the surface impregnated with above agents. The compsn. comprises (in wt.%): sodium pentachlorophenolate 8-40; boric acid 30-46 and calcined soda 30-46.
Gorshin, S.N., Maksimenko, N.A., Rymina, L.V. Bul. 29/5.8.78. 4.1.77 as 442172 (2pp938)

POPP/ D22 84526W/51 =US 4155-123
Deodorizing T-shirt with solid anion exchanger matl. - in non-fluid extended form to sorb perspiration anions
POPPER K 24.07.73-US-382208 (28.10.75-US-626361)
*F07 P21 (22.05.79) *US3922-723 +A41b-11*

Deodourant sock or stocking comprises an anion exchanger in non-fluid, non-dispersible, substantially extended form, having exchange site which sorb anion contained in the odourant produced by the wearer's foot at the prevailing pH.

Thehose is pref. made of a weak base exchange fabric as aminated cotton. It is effective for a long period and is comfortable to wear. 28.10.75 as 626361 (10pp945)

LAWR/ ★ D22 43791B/23 ★US 4155-331
Cryogenic preservation of multicellular organisms e.g. shrimp larvae - by rapid cooling and warming in a cryoprotective medium
LAWRENCE A L 01.04.77-US-783937
P14 Q75 (22.05.79) A01k-61 F25d-17/02

Multicellular organisms (I) are cryopreserved as follo
(a) (I) are treated with a cryoprotectant medium (II) ar
the mixt. is frozen at > 100°/min.; (b) mixt. is held
< 100°/min. to the appropriate storage temp. (which
pends on the length of the storage period).

Use of the rapid freezing technique allows multicell
mammalian tissues and organisms, and viable embryo
be preserved. Thus shrimp larvae may be preserved
use as seed stock on a 12-month basis. 1.4.77 as 783
(6pp478)

GATR- D22 49028Y/28 =US 4155
Thermoplastic package strip sterilisation - by contact with he endless metal strip before entry into sterile shaping station
GATRUN ANSTALT 17.12.75-FR-038743
*A92 Q31 (22.05.79) *DT2656-942 +B65b-47/02*

A thermoplastic film for the mfr. of sterile containers
sterilised by applying the film surface which will form
inside of the containers onto a movable support heated
sterilisation temp. The support is moved to a sterile
enclosure contg. forming, filling and sealing stations.

Once inside the enclosure, the film is sepd. from th
support and conveyed to the forming station. The proc
operates at lower temps. than formerly, e.g. 130-240
and thus is more economic. 15.12.76 as 750959 (14pp

ALKU D22 88442Y/50 =US 4155-
Bodies with controlled gas emission - e.g. of perfume, deodoran insecticide, from unsaturated polyester compsn. contg. holl microspheres
AKZONA INC 31.05.76-DT-624289
*A97 C03 (A23) (22.05.79) *DT2624-289 C08k-07/16*

Compsn. which when cured can controllably release an
tive substance having a finite vapour press. at room ter
and exhibiting some useful property when present at sor
min. concn. in the ambient air, comprises 1-60 wt.% a
tive substance, 98-40 wt.% unsatd. polyester resin (I) a
0.2-30 wt.% hollow microspheres of organic and/or ino
anic mixt. having an average particle dia. of 0.1-300 µ
and a density of 0.03-0.7 g/cc.

(I) comprises a mixt. of unsatd. polyester and $\geqslant$ 1 c
monomers contg. $\geqslant$ 1 CH_2=C= gps. Pref. the active sub
stance is a perfume, deodorant or insecticide. Reduced
costs without loss of effectiveness are achieved. 31.5.
as 801935 (4pp393)

RILE/ ★ D22 43964B/23 ★US 4155-9
Deodorising urine deficient livestock manure - with an aq. mixt. iodine, potassium iodide, ammonium nitrate and hypochlorite
RILEY H W 28.11.77-US-855421 (01.11.76-US-737487)
E37 P34 (22.05.79) A61l-11 A61l-13 C02c-01/40

Livestock manure consisting of urine-deficient faeces ar
deodorised by evenly applying to the manure heap or a mixt., in aq. medium, of iodine, KI (the iodous component, A), alkaline hypochloriate (oxidiser for A) and NH_4NO_3.

Pref. the mixt. is made by dissolving 4.5 pts. each o
I_2 and KI in $\geqslant$ 1000 pts. water and separately 4500 pts.
hypochlorite and 4-50 pts. NH_4NO_3 in $\geqslant$ 15000 pts. wate
(all pts. by wt.).

The mixts. are storage stable and effective for a long
time (e.g. 7 days) after a single application. 28.11.77 a
855421 (3pp1251)

See Also

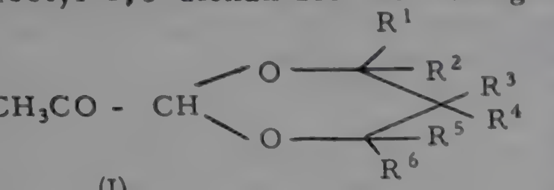
D21 US 4155890
D21 US 4156066
D21 US 4156067
D23 DT 2752972

D23: OILS; FATS; WAXES

K ★ D23 42591B/23 ★DT 2752-972

**etyl-1,3-dioxan derivs. used as perfume components - e.g. for
ume compsns., cosmetics, detergents, textile treatment agents
tobacco**

IENKEL KG AUF AKTIEN 28.11.77-DT-752972
13 (D18 D21 D22 D25) (31.05.79) C11b-09



(I)

cetyl-1,3-dioxan derivs. having formual (I) (where R^1 to R^6 are H, 1-4C alkyl or Ph and no more than 2 of R^1 to R^6 in one mol may be Ph) are used as perfumes. Pref. perfume mpsns. contain 1-50 wt.% of (I).

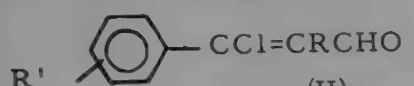
The perfume compsns. can be used as perfumes and for rfuming cosmetics, detergents, disinfectants, textile eatment agents and tobacco.

(I) have characteristic fragrance notes, ranging from oomy, freshly metallic to a tobacco note, and combine ell to form new fragrances. 28.11.77 as 752972 (8pp200)

VA ★ D23 42697B/23 ★DT 2851-024

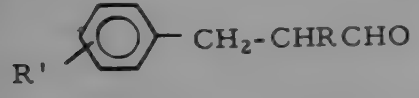
**bstd. di:hydro-cinnamaldehyde perfume prepn. - by reacting
ylalkyl ketone with Vilsmeier reagent and hydrogenating alpha-
kyl-beta-chloro cinnamaldehyde obtd. (NL 29.5.79)**

GIVAUDAN L & CIE SA 25.11.77-US-854927
E14 (31.05.79) C07c-47/48

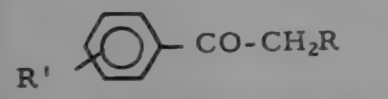


(II)

ew α-alkyl-β-chloro-cinnamaldehydes have formula (II) (where **R'** is H, MeO or one or more alkyl gps. contg. a total of ⩽7C; R is 1-8C alkyl and the C sum of R + R' is 2-8).



(I)



(III)

(II) are intermediates in the new claimed 2-step process or preparing α-alkyl-dihydro-cinnamaldehydes having ormula (I) by reacting an arylalkyl ketone having formula (III) with a Vilsmeier to form (II), and then (b) hydrogenating (II) to (I).

(I) are known perfumes. Process allows the conversion of an easily available substd. (III) to (I). 24.11.78 as 851024 (18pp200)

PEI- ★ D23 42733B/23 ★FR 2401-685

**Continuous solvent extractor for oily grains - is of basket type with
afety overflow arrangement**

SPEICHIM SA 02.09.77-FR-026673
J01 (04.04.79) B01d-11 C11b-01/10

Basket type extractor comprises a series ofbaskets which receive the material to be treated, a solvent feed system, and a receiver for the effluent as it leaves the baskets. Each basket has at its upper part an overflow which leads to a receptacle and through which excess solvent can be discharged.

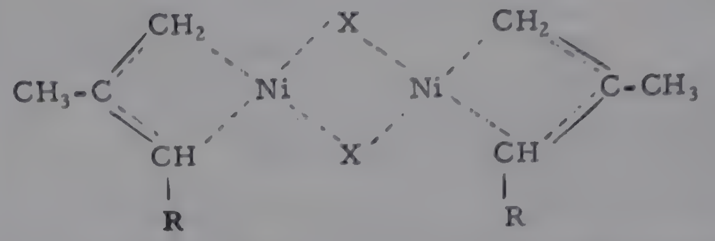
Used esp. for extn. of oil from oily grains by counter current solvent extn. Inflammable solvents are used and the special overflow arrangement improves the safety of the continuous process. The process is continuous and any excess of solvent caused through a blockage is safely conducted away for recycle to the next extractor. 2.9.77 as 026673 (6pp)

KURS ★ D23 42926B/23 ★J5 4052-021

Prodn. of beta-cinensal or its acetal - by treating a pi-allyl-nickel complex with 4-halo 2-methyl-butene-1-al acetal and opt. hydrolysing

KURARAY KK 03.10.77-JA-119183
E17 (D13) (24.04.79) C07c-45 C07c-47/20

β-Cinensal or its acetal is produced by treating π-allyl nickel complex of formula (I) (where R is $-CH_2CH_2C(=CH_2)CH=CH_2$; X is halogen ---- indicates semi (bond) with acetal of 4-halo-2-methyl-2-butene-1-al to give acetal of β-cinensal, opt. hydrolysing the substance togive β-cinensal.



(I)

β-Cinensal i.e. 2,6-dimethyl-10-methylene-dodeca-2,6,11-triene-1-al has perfume of citrus fruits and it is useful as fragrance and flavour for drinks and foods, perfumes. The acetal has the same uses. β-Cinensal or its acetal contains > 95% of Δ^6-trans isomer and > 95% of that isomer is $\Delta^{2,6}$-trans isomer. 3.10.77 as 119183 (5pp19)

SANE ★ D23 43160B/23 ★J5 4053-110

Antioxidant for fats and oils - contains geranium tannin obtd. from geranium nepalense sweet by extn. with water, alcohol, acetone etc.

SAN EI CHEM IND KK 04.10.77-JA-119647
(26.04.79) C11b-05

The antioxidant contains geranium tannin which can be obtd. from Geranium nepalense sweet by extn. with water, alcohols, acetone, etc.

This antioxidant is easily soluble in water, alcohols, or alcoholic water, odourless, tasteless, stable against heat and light, and safe for medical purpose. It is applicable to all foods and is used in a concn. of 1 ppm. 4.10.77 as 119647 (3pp117)

HASE D23 49346V/27 =J7 9011-285

6-Methylheptadiene derivs - prepd. by ozonization of 2,6-dimethyl-1,3,6 octatriene an hydrolysis

HASEGAWA PERFUMERY (HASE-) 13.07.72-JA-069536
*E17 (14.05.79) *J49030-307 +C07c-29/02 C07c-33/02 C07c-45/04 C07c-49/20*

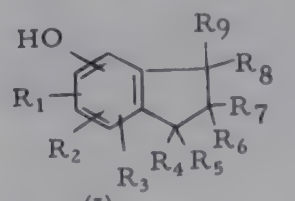
6-Methyl-4,6-heptadien-2-one(I) 6-methyl-3,5-heptadien-2-one (II), or 6-methyl-4,6-heptadien-2-ol (III) is prepd. by ozonisation of 2,6-dimethyl-1,3,6-octatriene (IV) with or without org. solvent and subsequent hydrolysis, pyrolysis, or redn. (I) and (II) of cinnamon like flavour are selectively obtd. by decompg. the ozonide at lower or higher temps., resp.

In an example, 0.5 mole (IV) in 800 g MeOH was treated with 0.5 mole 6% O_3 in air at -80 to -70° over 10 hr. The mixt. was refluxed with 800 g H_2O for 2 hrs. to give 90% (II) while redn. with 28 g $NaBH_4$ at 25° gave 87% (III). (I) was obtd. by treating the ozonide with Me_2S or $K_4Fe(CN)_6$ with cooling. 13.7.72 as 069536 C07c-49/20, 33/02, 29/02, 45/04 (14.5.79) HASEGAWA PERFUMERY CO (5pp) (J49030307)

FARB D23 58426V/33 =J7 9011-305

1,1,3,3-Tetra substd hydroxy indanes - perfumes, antioxidants, developers and intermediates for insecticides, germicides and fungicides

BAYER AG 16.04.73-DT-319079 (31.01.73-DT-304588)
*B05 C03 E14 +R23 (14.05.79) *BE-810-303 C07c-35/22 G03c-05/24 +C09k-15/06*



(I)

Titel cpds. (I) (where R_1 is H, halogen, alkyl cycloalkyl, aralkyl, aryl opt. substd. or a gp. of formula (I) where R_1 is -S-, or $-C(R_{10})(R_{11})-$ R_2 and R_3 are H, halogen, alkyl, cycloalkyl, aralkyl, or aryl, opt. subst. or together form a 5-membered ring R_4-R_9 are, alkyl, cycloalkyl, aralkyl, or aryl opt. subst. or R_4 and R_5, and/or R_6 and R_7 and/or R_8 and R_9 form cycloaliphatic gps. or R_6 and R_7 are H, R_{10} and R_{11} are H, alkyl, (opt. subst.) or together form a cycloaliphatic gp.) are prepd. by reaction of an alkyl phenol with an olefin with >1 olefinic C atom attached exclusively to C, in the presence of an acid catalyst at 100-350°C. 29.1.74 as 011511 (clg.31.1.73-DT-304588, 319079) C07c-35/22;C09k-15/06; G03c-5/24 (14.5.79) BAYER AG (9pp)(J49101366)

AAZB= ★ D23 43650B/23 ★SU -618-404
Prodn. of sea buckthorn oil from oil cake - by freezing in liquid nitrogen, ageing at room temp., drying and extracting
AS AZERB BOTANY INS 30.07.75-SU-164998
B04 (29.06.78) C11b-01/10

Sea buckthorn oil is obtd. from dried comminuted oil-cake by (a) freezing in liq. N_2 for 2-3 mins., (b) leaving at room temp. for 1.5-2 hrs., (c) drying at 45°-50°C and (d) extracting the oil.

The extraction is pref. carried out using NR-3, a gasoline raffinate platforming extract. The method provides a 2-3% better yield than prior methods.

The prod. oil is valuable for preserving biologically active agents such as carotinoids.

Abutalybov, M.G., Aslanov, S.M., Novrusov, E.N. et al Bul. 29/5.8.78. 30.7.75 as 164998 (2pp314)

UYKA= ★ D23 43651B/23 ★SU -618-405
Steam distillation unit for essential oils - has a thermally-insulated steam superheater feeding the jacketed steaming chamber
KABARDINO BALKAR UN 21.06.76-SU-376509
(30.06.78) C11b-09/02

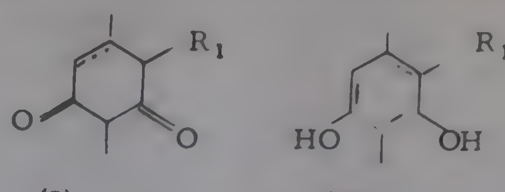
Intensification of essential oil distillation ensuring a greater extraction rate is achieved with superheated steam generated in a thermally insulated unit. The steaming chamber has an outside heater and is fed with steam from the superheater. The outside jacket prevents condensation, and its temp. is adjustable.

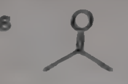
The steam in the chamber is enriched with the vapours of essential oil and reaches the cooler, the condensate flowing to water separator. The separated water is returned to the steam generator.

Teppeev, S.B., Goryaev, M.I. Bul. 29/5.8.78. 21.6.76 as 376509 (3pp89)

INFL D23 70662A/39 =US 4155-867
2,4-Di:hydroxy-3,6-di:methyl-benzonitrile - useful in perfumery as oak moss substitute
INT FLAVORS & FRAGR INC 26.05.77-US-800889 (08.06.78-US-913716)
*E14 (22.05.79) *US4115-431 +C11d-03/50 C11d-09/44*

The organoleptic properties of a soap or detergent are augmented or enhanced by adding and intimately mixing an effective amt. of a substd. dimethyl dihydroxy benzene or cyclo-hexadiene of formula (I) or (II) or their tautomers with a soap or detergent base.


(I) (II)

In the formul
R_1 is  or
-C ≡ N; the dash
line is a single o
double bond, pro
ided that for a si
bond R_1 is only
-C ≡ N. 8.6.78 as 913716 (16pp910)

PETL ★ D23 43941B/23 ★US 4155-
Refining organic liquid esp. vegetable oil - includes electrofiltrat giving prod. more suitable for hydrogenation
PETROLITE CORP 24.01.77-US-761741
(22.05.79) C11b-03/10

The purificn. of fats, animal or vegetable oils, the liq. is pretreated with an inorganic base, and a finely dispersed solid absorbent, to remove colour bodies, moistur free acids, etc. It is then subjected to electrofiltration in the absence of oxygen or moisture, by passage over a bed of particles having a dielectric constant ⩾ 6, in an ectric field of ⩾20 KV per inch.

The process gives a purer product than processes usi mechanical filtration. The prod. can be hydrogenated more efficiently.

The process is esp. suitable for soybean, peanut, co cottonseed, palm and safflower oils. The absorbent is esp. spent hydrogenation catalyst, bleaching clay, fuller earth, diatomaceous earth, activated carbon or kieselgu 24.1.77 as 761741 (7pp955)

GENO D23 06108Y/04 =US 4156-0
Stable purified coffee oil prodn. - by treating the purified oil with a antioxidant after removal of diterpene esters
GENERAL FOODS CORP 07.07.75-US-593585
*+P54 (D13) (22.05.79) *DT2630-580 +B23f-01/08*

A stable purified coffee oil is free of diterpene esters, is prepd. by treating coffee oil to remove all of the diterpen esters, agitating the treated coffee oil with an aq. coffee extract and sepg. the oil and aq. phases. Agitation is carried out for ⩾ 10 mins. and sufficient time to effect transfer of natural coffee antioxidants from the aq. extract int the oil.

Pref. the treated coffee is contacted with an aq. coffee soln. prepd. by reconstituting soluble coffee solids. Coffee oil is expressed from water-extracted roasted coffee.

Purified coffee oil can be protected or stabilised so it can be stored for prolonged periods and used either as a general purpose edible oil or in the aromatisation of soluble coffee. 7.7.75 as 593585 (3pp931)

See Also

D13 J5 4051984

D24: SOAP; SOAP DETERGENTS

BERP D24 08025Y/05 =GB 1547-275
Detergent contg. hydroxyalkyl or alkyl hydroxyalkyl cellulose - having very low viscosity as antiredeposition agent and dirt vehicle (NL190177)
BEROL KEMI AB 18.07.75-SW-008166
*A97 (A11) (06.06.79) *DT2632-218 C11d-03/37*

A detergent compsn. is prepd. contg. ⩾ 1 surfactant, and an ethylhydroxyalkyl cellulose of viscosity 4-35 cP when measured as a 2% soln. in water at 20°C with a Brookfield viscometer, and a flocculating temp ⩾ 30°C.

Hydroxyalkyl portion of cellulose ether is hydroxyethyl and/or hydroxypropyl and or hydroxybutyl. Pref. the cellulose ether has total degree of etherifying ethyl substitutio (DS) of 0.2-2.0. Total molecular substitution (MS) is 0.2-4.0. Molecular substitution of hydroxyethyl is 0.4-1.5, of hydroxypropyl is 0.5-2.0 and of hydroxybutyl is 0-1.0.

Detergent compsn. has improved antiredeposition and/or sud removing properties. 15.7.76 as 029563 (10pp931)

D25 : OTHER DETERGENTS

★ D25 42420B/23 ★BE -872-461
lered detergent contg. silicone antifoam - has improved
lving properties
ENKEL KG AUF AKTIEN 02.12.77-DT-753680
97 (A26) (01.06.79) C11d
owdered detergent contg. a polymeric silicone as anti-
n is prepd. by mixing 3 powdered constituents: 1 pt. wt.
A), 0.01-0.5 pt. wt. (B), and 0.05-1 pt. wt. (C). (A)
tains 5-30 wt % of an anionic and/or nonionic detergent,
94 wt % of a detergent auxiliary, which canbe a phos-
te, polyphosphate, silicate, aluminosilicate, carbonate,
phate, polycarboxylate or phosphonate, as an alkali
tal salt, and 1-20 wt % of other usual detergent constit-
ts.
(B) is a powdered or granular pre-mixt. of $\geq$1 of the
iliary products listed in (A) and/or magnesium silicate,
ether with 1-15 wt % the pre-mixt. of polymeric silicon
s. (C) is another powdered or granular pre-mixt. prepd.
om a powdered peroxide cpd. and/or $\geq$1 of the auxiliar
oducts listed in (A), together with 3-25 wt % w.r.t. the
e-mixt. of $\geq$1 nonionic detergent contg. polyglycol ether
s. and consisting of, for $\geq$ 40 wt %, of a cpd. contg. 12-
C in the hydrophobe, the ratio of ethyleneglycol ether
s. to the number of C atoms in the hydrophobe being be-
een 1:3 and 1:6. The total mixt. contains 0.05-1.6 wt %
the silicone and 1-10 wt % of the nonionic detergent in
).
Good distribution of the silicone antifoam can be effected
preliminary application to supporting substances but the
ssolving properties of the powder are not good, the first
pplication of water producing a compact paste which then
ssolves very slowly. This dissoln. problem is overcome.
12.78 as 872461 (22pp1331)

OY D25 13841V/08 =DS 2336-182
ranular washing agents and detergents - contg inorganic
luminium salts, sodium citrate and non-soapy anionic wetting
gents
LION FAT & OIL KK 17.07.72-JA-071934
*(31.05.79) *DT2336-182 C11d-01/02 C11d-03/20*
igh capacity granular washing and cleaning agent, free
rom P cpds., comprises an Al cpd., a non-soapy anionic
urfactant and the usual additives. In partic. the compsn.
ontains Na citrate (10-60 wt. %); anionic surfactant (5-40
vt. %); $Al_2(SO_4)_3$ or its double salts with Na or K sulphate,
$Al(NO_3)_3$ and/or $NaAl(SiO_3)_2$ or their hydrates (1-5 wt. %);
nd additives, such that the ratio Na citrate/surfactant is
.2-10 by wt. The prods. are obtd. as a granulate by sp-
ray drying. 16.7.73 as 336182 (9pp047).

FMCC D25 07513W/05 =DS 2431-338
Sodium dichloro isocyanurate dihydrate prepn - by heating anhydrous sodium dichloro isocyanurate with a hydrated salt
FMC CORP 18.07.73-US-380459
*E34 (31.05.79) *BE-817-721 C07d-251/36*

A mixt. contg. sodium dichloro-isocyanurate (I) with 11-14.1 wt. % hydrate of water and which is free-flowing and stable to storage and thermal decompsn. is prepd. Cpd. (I) with less than 11 wt. % hydrate water is mixed with a suitable amt. of a hydrated salt which releases its water of hydration at temps. between room temp. and 70°C. The mixt. is heated to release the water of hydration and maintained at this temp. The hydrated salt is pref. sodium sulphate decahydrate, sodium tetraborate decahydrate or sodium carbonate decahydrate. Cpd. (I) is useful in disinfectants and detergents. 29.6.74 as 431338 (3pp068).

PCAR D25 07795Y/05 =DS 2529-096
Cold cleaning fat soiled solid surfaces - using aq. emulsions contg. ethoxylated alkyl phenols and ethoxylated alcohols or phenols
WOELLNER-WERKE 30.06.75-DT-529096
*A97 G04 (31.05.79) *DT2529-096 C11d-01/72 C23g-05*

Articles with stains of fat or fatty materials, e.g. hydrocarbons or vegetable fats are cleaned with a cold-cleaning

more ethoxylated phenols contg. 3-6 molecules ethylene oxide and with 8-20C atoms in the alkyl chain and (b) one or more ethoxylated aliphatic alcohols or phenols contg. 7-18 molecules ethylene oxide and with 8-20C atoms in the alkyl chain. The molar ratio of component (a) to component (b) is 27:1 to 1:1. The emulsion may be used to clean oily metal articles. 30.6.75 as 529096 (4pp068).

KAOS ★ D25 42661B/23 ★DT 2850-256
Low viscosity aq. stable liq. cleansing compsn. - contains partly crosslinked polyacrylic acid, hydrotropic agent, nonionic surfactant, scouring agent and pH regulator
KAO SOAP KK 28.11.77-JA-143042
A97 E17 (A14 A25 E14) (31.05.79) C11d-03/37

Liq. cleansing compsn. consists, by wt. of (a) 0.1-0.6% partly crosslinked polyacrylic acid having average degree of polymerisation 10^3-10^5 (10^4) and Brookfield viscosity $\geq$100 (100-200) g/sec. cm.; (b) 1-10% hydrotropic agent; (c) 0.5-10 (1-5)% nonionic synthetic organic surfactant, (III), having HLB 10-17; balance (d) particles of $\geq$1 water-insol. scouring agent, water and sufficient water-soluble pH regulator to maintain the compsn. at pH 5-9.

The hydrotropic agent has formula ROH (I) (where R is 1-3C alkyl), or $R'-O-(R''O)_nH$ (II) (where R' is H, 1-4C alkyl, Ph or benzyl; and R'' is $-C_2H_4-$ and/or $-C_3H_6-$; and n is the average no. of added moles, provided n = 1 to 20 when R' is H and n = 1 to 3 when R' is a gp. other than H).

The compsns. have viscosity $<$5000 cps; resist prolonged storage at different temps.; are easily applied to surfaces and are retained well by a vertical surface. The water-soluble hydrotropic agents (I) and (II) increase dispersion stability. 20.11.78 as 850256 (23pp200)

FERR- ★ D25 B/23 ★HU T016-608
Detergent compsn. - for cleaning leather, wood, stone and painted surfaces, opt. on paper or textile carrier
FERROKEMIA IPARI 10.05.77-HU-FE0993
P28 (28.05.79) A47l-13/16 C08l-33 C09k-13 C11d-17

PROC D25 08406B/05 #US 4155-855
Pourable, water dispersable conc. liq. fabric softener - comprising quaternary ammonium substantive and softening components
PROCTER & GAMBLE CO 06.07.77-GB-028300 (26.06.78-US-919204)
*E19 (22.05.79) *EP-----406 D06m-13/34*

A conc. liq. fabric softener is prepd. having improved pourability and water-dispersability characteristics and comprising 25-55 wt. % of an active system contg. a fabric-substantive agent and fabric-softening component.

Fabric-substantive agent is a polyamine, 10-24C alkyl-pyridinium salt or a mixt., such that agent has a water-solubility of > 5 wt. % at pH 2.5 at 20°C. Fabric-softening component is a quat. ammonium salt, alkylimidazolinium salt. 1-24C fatty ester of mono- or polyhydric alcohols, ethers of 10-24C fatty alcohols, fatty cpds. contg. S or N as a linking atom, or their mixts. wt. ratio of fabric substantive to fabric-softening cpds. are 6:1 to 1:4. Compsn. further contains a liq. carrier.

Compsn. is easily dispersible in aq. medium and can evenly deposit onto fibres to provide textile handling benefits inclusive of softening, static control, ease-of-ironing fluffiness, pliability and smoothness. 26.6.78 as 919204 (87pp931)

UNIL D25 55576V/31 =US 4155-871
Flowing cleaning compsn. contg. scouring bleaching agents - with particles of an alkaline buffer cpd. suspended together with other solids by means of a surfactant combination
LEVER BROTHERS CO 19.01.73-GB-002907
*(22.05.79) *DT2402-224 C11d-07/06*

A pourable liq. detergent compsn. comprises an aq. detergent soln. having a field stress value at 20°C of 1-21 dynes/cm^2 and a buffering amt. of solid particles of an alkaline buffer, having a solubility at 20°C of 0.0005-0.2 pts. wt./100 pts. wt. water and providing a pH of 10-13, dispersed in the soln.

Pref. the buffer is $Ca(OH)_2$ or $Mg(OH)_2$. 22.4.77 as 790162 (+16.1.74-US-433950)(3pp910)

UNIL D25 13062W/08 #US 4155-882

Auto-oxidation of spray-dried detergents prevented - by addtn. of opt. substd. amines

LEVER BROTHERS CO 01.08.73-GB-036593 (29.07.74-US-492627)

*E16 (22.05.79) *DT2436-145 C11d-03/30 C11d-11/02*

Spray dried particles of a detergent compsn. contains 5-20 wt.% of an alkoxylated alcohol nonionic surfactant. In their prodn. an aq. slurry is formed contg. the nonionic surfactant and other conventional detergent ingredients, then spray dried to form the particles. A lower alkyl monoalkanolamine, lower alkyl alkanolamide of a fatty acid, hexamine, gelatine or a mixt. of these is incorporated into the slurry in an amt. such that the cpd. constitutes > 4 wt.% of said spray dried particles.

Compsn. may further contain other detergent active cpds., builder materials, anti-redeposition aids or additives to enhance the properties of the slurry and moisture. 19.8.77 as 826017 (4pp931)

DEGS D25 34984A/20 =US 4156-

Sodium percarbonate particles coated with dehydrated sod
perborate - useful as storage stable bleaching agent

DEUTSCHE GOLD & SILBER 19.03.77-DT-712139 (11.11.76-
651442)

*E34 +P42 (22.05.79) *BE-860-762 +B05d-07/24*

Sodium percarbonate particles are prepd. contg. a sodi
percarbonate nucleus and an encasing layer contg. dehy
rated sodium perborate contg. < 54 gms. of water per
mole, plus opt. sodium silicate, plus opt. water bindin
material chemically inert to sodium percarbonate and d
hydrated perborate.

Water binding material is sodium tripolyphosphate,
cined soda, water free sodium sulphate, sodium percar
onate dust or their mixts. Pref. particles have an acti
oxygen content of ≥ 10.2%.

Prod. is relatively stable in a moist and warm envir
ment with comparatively small loss of activity, and reta
ing good speed of solubility after stabilisation. 27.9.77
as 837262 (8pp931)

See Also

D13 DT 2752553 D21 US 4155870 D23 DT 2752972

CPI INDEXES

LERTING PATENTEE INDEX (II)

eekly by section and overall, lists all current patents in atentee code order and, within a given patentee, in earliest riority date order. The first line gives patentee code, arliest priority date, patentee name, CPI classes and finally he current patent number. The second line gives the first art of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
     Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
     Bonding fluid for road marking strips - 60223X/32
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Not in Basic Abstracts Journal

CPI CLASS INDEX (IV)

Weekly only. Headings are all the CPI classes within the section to which an Alerting Bulletin relates, arranged in numerical order. Posted under each class heading is a list, in country then patent number order, of all basic or equivalent documents referenced or cross-referenced under that heading.

```
      M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

BASIC NUMBER INDEX (V)

Weekly by section and overall, lists all entries by accession number. Each heading consists of the accession number in bold, followed by the CPI section letters. There then follows a list of all the family members, commencing with the basic and finishing with the current week's patent. For each family member the CPI week of issue is quoted, and a plus sign indicates that a multiple priority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

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US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

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CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                            49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                       49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                            48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguishes accepted West German specifications (DAS) from the unexamined applications (OLS) which are given the normal DT code. in the case of Japan J5 represents the unexamined applications, and J7 the examined of the present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7
Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

AAZB= 30.07.75 AS AZERB BOTANY INS B04 D23 *SU -618-404
Prodn. of sea buckthorn oil from oil cake - 43650B/23

ABBO 21.11.77 ABBOTT LABORATORIES A96 B04 D17 =GB 2008-406
Glucose polymer mixed soln. - 40906B/22

AGAA 02.09.77 AGA HEATING AB D15 =FR 2401-878
Combined biological dry toilet and waste water purifier - 20411B/11

AGEN 28.02.74 AGENCY OF IND SCI TECH D16 =J7 9011-393
Coagulation of methanol utilising yeast - 73023Y/41

AGEN 01.10.77 AGENCY OF IND SCI TECH D15 E33 *J5 4051-989
Activating magnesia water treatment agent - 42914B/23

AGEN 01.10.77 AGENCY OF IND SCI TECH D15 F06 (F09) *J5 4052-864
Waste water treatment to remove COD, BOD and colouring components - 43133B/23

AHIO- 16.02.77 AHI OPERATIONS LTD B04 C03 D13 *US 4156-179
Cow mastitis detection from milk sample - 44012B/23

AIDA/ 05.09.77 AIDA K B05 D16 =FR 2401-993
Fermentative prodn. of coenzyme/Q - 22325B/12

AIRW- 02.09.77 AIRWICK AG D25 E37 =FR 2401-988
Powdery carpet cleanser and deodorant compsns. - 24173B/13

*AJIN 29.09.77 AJINOMOTO KK B05 D16 *J5 4052-033
Seleno-aminoacid prepn. - 42933B/23

AJIN 03.10.77 AJINOMOTO KK B05 D16 E19 =J5 4052-791
Enzymatic d-alpha-amino acid prodn. - 91750A/51

*ALBR 25.11.77 ALBRIGHT & WILSON LTD D15 H01 M14 *DT 2850-925
Inhibiting boiler scale formation or metal corrosion - 42690B/23

ALKU 31.05.76 AKZONA INC A97 C03 D22 (A23) =US 4155-897
Bodies with controlled gas emission - 88442Y/50

ALLI- 28.01.75 ALL INDIA INST SCIE B04 D16 =CA 1054-937
Contraceptive vaccine for women - 03897X/03

*ALMI= 25.07.75 AS LATV MICROBIOLOG B04 C03 D16 *SU -618-411
Lympholeucosis mass-diagnosis in cattle - 43657B/23

*ALTA= 02.07.76 ALTAI BUTTER CHEESE D13 *SU -618-078
Cheese pressing device - 43472B/23

*ALTA= 28.10.76 ALTAI BUTTER CHEESE D13 *SU -618-077
Multiple mould far cheese pressing - 43471B/23

ALTO- 01.11.77 ALTO CORP D11 =GB 2008-379
Piercing machine for English muffins forming sawtooth tear - 35619B/19

*ALUM- 29.10.76 ALUMINIUMIPARI TERV D16 E31 M24 *HU T016-559
Continuous prepn. of ferric cpds. for hydrometallurey - B/23

AMAN 20.11.73 AMANO PHARM KK B04 D16 =J7 9011-395
Amylase inhibitor, X-2 substance prodn. - 76468W/46

AMCY 12.10.72 AMERICAN CYANAMID CO B04 C03 D16 =SU -618-053
Antibiotic BM 123 - 33005V/18

AMCY 19.04.77 AMERICAN CYANAMID CO B05 C03 D21 #FR 2401-903
(Alpha)-cyanobenzyl-(2)-naphthalene-acetates - 66747Y/37

AMFI 06.11.75 AMERICAN FILTRONA CORP A97 D18 =CA 1054-894
Tobacco smoke filters - 35935Y/20

*ANNE 04.07.70 ANNE KK A96 D22 *J7 9011-640
Catamenial tampon - 43381B/23

*ANVR 30.08.77 AGENCE NAT VALORISATION D13 J01 (D16) *FR 2401-684
Freeze concn. of aq. solns. and suspensions e.g. fruit juice - 42732B/23

APOT 24.07.74 APOTHEKERNES LAB D15 J01 =CA 1054-896
Recovery of pptn. agent from pptd. protein matter - 83261W/51

ASAG 04.10.74 ASAHI GLASS KK D15 J03 =J7 9011-153
Recovering acids and metals from waste liq. contg. acids and salts - 38637X/21

ASAH 26.06.71 ASAHI CHEMICAL IND KK B05 D16 E16 =J7 9011-398
Fermentative prodn of lysine - 64425U/43

ASKO- 02.09.77 ASKO-UPO OY D15 =FR 2401-878
Combined biological dry toilet and waste water purifier - 20411B/11

*ASMI= 27.01.77 AS USSR MICROORGANI D16 *SU -618-412
System for aerobic microorganisms storage in liquid medium - 43658B/23

AVIC- 29.08.77 AVICON INC D12 (D18 D22) =FR 2401-973
Pyrogen-free collagen prodn. - 18542B/10

*AZOV= 17.04.76 AZOV BLACK SEA FISH D12 *SU -618-083
Fish scales and water separator - 43475B/23

BADI 21.09.68 BASF AG D15 E19 M14 =DS 1792-584
Edta salt with synergistic anticorrosion agent as - 20352R/13

BADI 30.06.76 BASF AG C03 D13 =HU T016-516
Feedstuff based on brewer's yeast - 04345A/03

BADI 19.11.77 BASF AG C03 D13 =GB 2008-381
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22

BADI 19.11.77 BASF AG C03 D13 =NL 7811-253
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22

BAKP 01.07.76 BAKER PERKINS LTD D11 =US 4155-691
Rotary biscuit blank shaping machine - 04672A/03

*BALD/ 30.11.77 BALDUS O G D15 *DT 2753-311
Sea water desalination - 42613B/23

BANE- 22.02.72 BANEXI BANQUE EXPAN D16 H04 =DS 2306-845
Biodegrading petroleum products - 48403U/34

BANK- 03.08.74 BANKS BARBADOS BREW D13 =CA 1054-844
Carbonated soft drink prodn. - 66736X/35

BATT 10.06.77 BATTELLE-INSTITUT B04 D16 =DS 2726-313
In vitro biosynthesis of hormones, esp insulin - 02028B/02

BEHW 04.06.76 BEHRINGWERKE AG D16 =DS 2625-208
Rocking fermenter with internal mixer and external drive - 88461Y/50

BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 =J5 4052-735
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04

BERP 18.07.75 BEROL KEMI AB A97 D24 (A11) =GB 1547-275
Detergent contg. hydroxyalkyl or alkyl hydroxyalkyl cellulose - 08025Y/05

BERT- 18.06.76 BERTRAMS H AG D15 =CH -611-255
Removal of hydrocarbons etc. from industrial waste water - 70800Y/40

BETT- 17.10.77 BETTCHER IND INC D12 =DK 7804-610
Hand-held trimming knife - 31907B/17

*BETZ 15.05.75 BETZ LABS INC A97 D15 F09 *CA 1054-476
Control of deposition in steam generating system - 42461B/23

BIOT- 04.12.75 GES BIOTECH FORSCH B05 D16 E16 =CH -611-337
Microbiological prodn. of L-serine - 43760Y/25

*BIOT= 17.01.77 BIOTECH RES INST D16 *SU -618-125
Turbo-ejector for aerating and stirring culture media - 43501B/23

*BISA/ 30.11.77 BISA K D16 J02 *DT 2823-253
Aerosol and foam generator - 42639B/23

BLUE- 25.08.77 BLUE CIRCLE IND D15 =J5 4052-862
Removal of heavy metals from water - 18536B/10

*BLUE- 03.04.78 BLUE CROSS LAB D13 *US 4155-770
Sprayable lecithin based cookware lubricant - 43870B/23

BLUM/ 31.10.75 BLUM A D15 =US 4155-959
Aerator with water ejector entrainment - 32964Y/19

BOEF 19.04.74 BOEHRINGER MANNHEIM GMBH B04 D16 (B01) =CH -611-315
3-Keto-delta-5-steroids converted to delta-4 - 74307W/45

BOEF 14.07.76 BOEHRINGER MANNHEIM GMBH A41 B04 D16 E13 =US 4155-914
Hydroxy-succinimido ester derivs. - 06571A/04

BORD 05.08.75 BORDEN INC D13 #CA 1054-847
Packaging bite-size cheese pieces - 54128X/28

BORS/ 12.08.77 BORST A H D15 =PT --68-416
Combined waste water treatment and rubbish disposal - 89700A/50

BORS/ 12.08.77 BORST A H D15 =PT --68-417
Combined waste water treatment and rubbish disposal - 89700A/50

BRIK- 10.10.77 BRIK PAK INC B04 D16 (D13) #SW 7711-320
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16

*BRPE 25.11.77 DEUTSCHE BP AG A94 D22 (A17 A96) *DT 2752-778
Laminated disposable diaper and sanitary towel - 42560B/23

BRPE 03.11.78 BRITISH PETROLEUM LTD A88 D15 H01 J04 =GB 2008-423
Determining soluble biological cpds. in water with adsorption filter - 39993B/21

*BUDA 01.03.77 BUDAPESTI MUSZAKI EGYETE D13 *HU T016-518
Detoxifying corn contaminated with Fusarium - B/23

*BUDA- 18.02.77 BUDAPESTI HUSIPARI D12 *HU T016-513
Continuous salami prodn. process - B/23

*CANN= 29.04.76 CANNING VEG DRYING D13 *SU -618-085
Dehydration of potatoes and vegetables - 43477B/23

*CANN= 23.08.76 CANNING VEG DRYING D13 *SU -618-086
Drying vegetables with reduced wastage - 43478B/23

CARB- 31.03.76 CARBOS AG B05 D17 E13 (E17) =US 4156-076
Lactose conversion to galactose and gluconic acid - 72801Y/41

CARL- 04.02.74 CARLTON & UTD BREW D16 E12 =CH -610-873
Isohumolone-metal complex and alkali metal cpd. beer-bittering compsn. - 40991W/25

CARL- 12.07.76 CARLE & MONTANARI D13 =CH -610-730
Mould fastener for continuous chocolate moulding machine - 61268Y/35

CECA- 31.08.77 CECA SA A11 C03 D22 (A97) =FR 2401-951
Gel compsn. based on carboxymethylated galactomannan - 22428B/12

CELF- 11.08.77 CELFIL CO ESTABL D18 F09 =PT --68-402
Mfr. of paper band for cigarette filter tips - 89704A/50

CHAD- 24.05.74 CHEM ADDITIVES CO A97 D16 H01 (A11) =CA 1054-356
Brine well-bore fluid contg. starch deriv. and hetero-polysaccharide - 84780X/45

CHAD- 24.05.74 CHEM ADDITIVES CO A97 D16 H01 (A11) =CA 1054-359
Brine well-bore fluid contg. starch deriv. and hetero-polysaccharide - 84780X/45

CHAR/ 21.11.77 CHARM S E B04 D13 J04 =NL 7811-478
Detection of antibiotics in liquid samples e.g. milk, body fluid - 24010B/13

*CHEL- 03.11.77 CHELSEA INDS INC D12 *US 4156-027
Smoked sausage type product - 43984B/23

CHIN 03.05.74 CHINOIN GYOGYSZER B02 C02 D13 =CH -611-289
7-Alkoxy-8-aminomethyl-isoflavone derivs. - 78068W/47

*CHIN 24.05.76 CHINOIN GYOGYSZER A96 B04 D16 *HU T016-597
Prepn. of insoluble, biologically active proteins, esp. enzymes - B/23

CIBA 30.11.70 CIBA GEIGY AG A97 D15 =DS 2159-172
Treating water - 38160T/24

CIBA 14.09.73 CIBA GEIGY AG A97 D12 (A14) =SU -618-020
Disinfection and sterilisation of seafood - 20955W/13
CIBA 12.06.74 CIBA GEIGY AG A60 D25 E23 F06 =CA 1054-610
Sulpho gp. contg oxazolystilbene cpds - 01271X/01
CIBA 12.06.74 CIBA GEIGY AG A60 D25 E23 F06 =CA 1054-611
Sulpho gp. contg oxazolystilbene cpds - 01271X/01
CIBA 12.06.74 CIBA GEIGY AG A60 D25 E23 F06 =CA 1054-614
Sulpho gp. contg. 2-stilbenyl-1,2,3-triazoles - 01272X/01
COLG 16.11.73 COLGATE PALMOLIVE CO D21 =CH -611-158
Regular particles for dentifrices - 24244W/15
COLG 31.07.75 COLGATE PALMOLIVE CO A96 D22 F07 =CH -610-737
Disposable nappy with compressible hydrophobic fibrous layer - 84645X/45
COLG 29.12.75 COLGATE PALMOLIVE CO D22 =CH -610-738
Disposable diaper folded into box pleats - 03620Y/02
COLG 05.01.76 COLGATE PALMOLIVE CO A96 D22 =CH -610-739
Disposable absorbent baby's nappy - 32828Y/19
COLG 31.08.77 COLGATE PALMOLIVE CO D25 E33 (E19) #FR 2401-987
Agglomerated insoluble detergent adjuvant contg. a zeolite - 90111Y/51
COLG 14.10.77 COLGATE PALMOLIVE CO A97 D25 (A25) =NO 7803-469
Abrasive liquid detergent compsn. - 88305A/49
COLG 14.10.77 COLGATE PALMOLIVE CO A97 D25 (A25) =SW 7810-522
Abrasive liquid detergent compsn. - 88305A/49
COLO- 14.07.75 COLORCON INC B07 D13 E24 #CA 1054-842
Dry, edible, non-toxic colour lakes prepn - 68816W/41
COMP 10.10.73 SAINT-GOBAIN INDUSTRIES D22 F04 L01 =CH -610-955
Mineral fibre panel mfg plant with wet scrubber - 27483W/17
*COMP= 01.12.76 COMPLEX FEEDSTUFFS IND C03 D14 *SU -618-080
Granulated fish feed water-resistance measuring appts. - 43473B/23
*CONF= 11.03.77 CONFECTIONERY IND D13 *SU -618-092
Confectionery composition for soft cream sweets - 43484B/23
*COPE- 23.11.77 COPEF TRAITEMENT EA D15 J01 *DT 2752-296
Separator for settling suspended solids in liquids - 42515B/23
CORP 21.08.74 CPC INTERNATIONAL INC D13 =US 4156-020
Dry hydrosoluble foodstuff prodn - 03921X/03
CORP 21.11.77 CPC INTERNATIONAL INC A11 D17 =NL 7811-479
Modified starch prepn. esp. using two centrifuge separations - 38989B/21
*CRAG/ 23.08.77 CRAGGS T A D15 J01 *GB 2008-426
Filter for sepg. liq. from slurry e.g. sewage - 42793B/23
CURT- 11.01.74 CURTIS H IND INC D21 E16 =CH -610-741
Hot permanent waving method with improved control - 37562W/23

DALE/ 19.09.77 DALE J A97 D15 (A25) =J5 4053-676
Removing salts from aq. soln. - 26470B/14
*DDAL/ 04.01.78 DA DALT G D16 *US 4155-290
Vinification vat with cylindrical vessel in tank - 43784B/23
DEBN 25.11.77 DEL LABS INC A96 D21 G02 #DT 2752-693
Nail polish imparting high flexural strength - 63351A/35
*DEGO/ 06.02.78 DEGOLER W H A97 D12 G02 *US 4155-886
Animal tattooing paste for pig carcasses - 43926B/23
DEGS 14.06.75 DEUTSCHE GOLD & SILBER C01 D13 =GB 1546-961
Calcium salts of (bis) hydroxymethyl lysine - 96279X/52
DEGS 11.11.76 DEUTSCHE GOLD & SILBER D25 E34 =US 4156-039
Sodium percarbonate particles coated with dehydrated sodium perborate - 34984A/20
DEGS 18.11.77 DEUTSCHE GOLD & SILBER D21 M26 =GB 2008-615
Yellow gold alloy - 22149B/12
DEGS 18.11.77 DEUTSCHE GOLD & SILBER D21 M26 =NL 7810-647
Yellow gold alloy - 22149B/12
DERO- 01.09.77 DEUTSCH ROTEN KREUZ D15 =FR 2401-877
High purity sterile water production - 20194B/11
DETE- 03.02.77 DETEC SA D22 E17 #CA 1054-773
Medical equipment disinfection with formaldehyde - 27208Y/16
*DEWA/ 18.10.78 DEWATH M D18 *HU H002-438
Treatment of sheepskin and wild animal pelts - B/23
DEXC 11.10.77 DEXTER CORP A96 D22 F07 =SW 7810-430
Antislip sheet material for covering surgical sheets - 31808B/17
DHVR- 22.10.76 DHV RAADGEVEND D15 =GB 1547-115
Mixer for a gas and a fluid, esp. sewage - 19700A/11
*DIGE/ 29.08.77 DIGEOS J D14 *FR 2402-087
Piston pump for food prod. viscous liquids and pastes - 42762B/23
*DORN- 26.04.78 MASCHINENFAB DORNHA D12 *DS 2818-147
Band saw for meat and bones - 42497B/23
DOUW 24.08.77 DOUWE EGBERTS KON D13 =PT --68-454
Juices and extracts concn. - 18329B/10
DOWA 11.11.75 DOWA MINING KK D15 =J7 9011-614
Metal chelate complex aq. solution treatment - 45918Y/26
DOWA 20.12.75 DOWA MINING KK D15 =J7 9011-615
Heavy metal sepn. from waste water - 79900Y/45
DSOM- 04.12.73 DSO MLECHNA PROMISH D13 (D16) =US 4156-019
Bulgarian yoghourt ferments prepn - 32466W/20
DSOM- 22.11.74 DSO MLECHNA PROMI D13 (D16) =HU T016-515
Cheese, using enzyme from Bacillus subtilis mesentericus - 45245X/24
DUVL/ 13.07.74 DUVLIS Z D22 =CH -610-762
Sterile air delivery system - 81522W/50

DWIJ/ 18.04.75 DE WIJN J R A96 B05 D22 =CH -611-150
Compsn. for fixing implants etc. in bones - 83443X/45

EAST 25.03.74 EASTMAN KODAK CO B04 D16 =CA 1054-907
Aqueous test solution for cholesterol assay - 37344W/22
EAST 02.09.77 EASTMAN KODAK CO A96 C03 D13 =FR 2401-619
Pill for ruminants resistant to conditions in the rumen - 24176B/13
EAST 09.09.77 EASTMAN KODAK CO A97 B04 D16 J01 =J5 4051-5
Chromatographic material for purificn. of biologically active ma
24191B/13
EBAR 06.11.73 EBARA INFILCO KK D15 E35 J01 =J7 9010-937
Treatment of solns containing organic acids and ammonia - 81793X
ECKA- 14.06.74 PFANNI-WERK ECKART D13 =US 4156-032
Dry, reconstitutable potato flakes - 72565W/44
ELEL- 23.09.76 ELELMEZESIPARI TERV D12 =HU T016-514
Poultry washed chilled and dried in automatic plant - 25597A/14
ELEX 02.12.74 ELECTROLUX AB D22 =CH -610-780
Compact air pressurised steriliser or cooler - 63748X/34
ELIL 10.06.74 ELI LILLY & CO B04 C03 D16 (D22) =HU T016-517
Antibiotic compex A-28086 and its components - 00001X/01
ELIL 02.12.75 ELI LILLY & CO C02 D22 (D15) =CA 1055-030
(1)-Benzothieno-(3,2d)-(V)-triazines - 30750Y/17
ELIL 20.10.77 ELI LILLY & CO B03 C02 D13 E13 =NO 7803-545
Antibiotics 20-deoxy-narasin and 20-deoxy-epi-17 narasin - 19939B/
ELIL 26.10.77 ELI LILLY & CO B03 D22 E13 =GB 2008-574
2-3-Amino-2-oxo-1-azetidinyl 3-methyl 2- or 3 butenoic acid der
31575B/17
ENGH 29.12.75 ENGELHARD MINERALS CORP D21 M26 =CA 1054-3
Particulate compsn. for forming dental amalgams - 97826X/52
ENVI 31.10.74 ENVIROTECH CORP D15 J01 =CA 1054-530
Combined filter and dryer for sewage sludge etc - 18885X/11
ENVI 14.02.77 ENVIROTECH CORP D15 J01 =BR 7707-092
Separating solids from liquids - 79183Y/44
ETHI 28.06.76 ETHICON INC A96 D22 =CH -610-752
Surgical needle with suture thread detachable at predetermined ten
- 02021A/02
EURT 25.11.74 EUROC ADMINISTRATION AB D15 =CA 1055-168
Microflotation of particles from waste water using microbubbl
42382X/23
EVER/ 22.08.77 EVERS H C A D22 E19 (E37) =J5 4052-892
Disinfecting and cleaning contact lenses without allergic reacti
18333B/10
EXTR- 26.01.77 EXTRACO AB D12 =GB 1547-146
Chopped fish compsns. - 55465A/31

FARB 31.01.73 BAYER AG B05 C03 D23 E14 =J7 9011-305
1,1,3,3-Tetra substd hydroxy indanes - 58426V/33
FARB 28.02.74 BAYER AG B02 D16 =CH -611-302
Prepn. of 7-amino-3-cephem-4-carboxylic acids - 61574W/37
FARB 19.04.74 BAYER AG A88 D15 J01 (A26 D13) =CH -610-915
Polybenz-1,3-oxazine-2,4-dione semi-permeable membranes
74310W/45
FARB 27.08.77 BAYER AG B03 C02 D13 =PT --68-474
Tri:hydroxy-piperidine derivs. - 18396B/10
FARB 03.09.77 BAYER AG D18 =FR 2401-998
Chrome tanning of hides and pelts - 20218B/11
*FARB 26.11.77 BAYER AG A94 D22 F01 (A14 A96) *DT 2752-821
Dry spun hydrophobic fibres with high water retentivity - 42564B/23
FARB 26.11.77 BAYER AG A94 D22 F01 (A14 A96) =GB 2008-486
Dry spun hydrophobic fibres with high water retentivity - 42564B/23
FARH 23.07.74 HOECHST AG A97 B04 D16 =CA 1054-543
Moenomycin fermentation prodn. - 11415X/07
*FERM= 13.01.77 FERMENT PRODUCT RES D16 *SU -618-407
Inoculum culture preparation - 43653B/23
*FERM= 16.03.77 FERMENT PRODUCT RES D16 *SU -618-409
Vodka production line - 43655B/23
*FERR- 10.05.77 FERROKEMIA IPARI D25 *HU T016-608
Detergent compsn. - B/23
FIRM 15.09.77 FIRMENICH SA B07 D13 E13 (B05 D23) =J5 4052-065
2-Formyl-bi:cyclo-heptane-3-carboxylate derivs. prodn. - 24225B/13
FIRM 16.11.77 FIRMENICH SA D23 E17 =GB 2008-577
5,9-Di:methyl-deca-4,9-di:en-1-al - 39369B/21
FMCC 18.07.73 FMC CORP D25 E34 =DS 2431-338
Sodium dichloro isocyanurate dihydrate prepn - 07513W/05
FRAN/ 14.06.76 FRANCO P D22 =CH -611-154
Disposable external sanitary towel shaped for anatomical fit - 77504Y/4
FUJF 09.11.76 FUJI PHOTO FILM KK D15 G06 M25 (D16) =US 4155-810
Biological treatment of waste liq. contg. silver and sulphur cpds.
48610A/27
FUJI 14.09.77 FUJISAWA PHARM IND KK B02 C02 D13 =J5 4052-731
Aminal feed compsn. contain bicyclomycin - 22499B/12
FUJI- 09.06.75 FUJIMAN KK D12 =J5 1144-756
Salted cuttlefish mfr. - 43374B/23

FUJI- 09.06.75 FUJIMAN KK D12 *J7 9011-376
Salted cuttlefish mfr. - 43374B/23
FUJI- 03.10.77 FUJI KASUI KOGYO KK D15 E31 *J5 4051-972
Continuous redn. of hexa-valent chromium - 42900B/23

GABA 31.05.74 GABA AG A96 D21 E11 =DS 2523-363
Oxyphosphorus acid-contg. oral/dental care formulation - 83502W/51
GALL- 16.09.77 GALLAHER LTD A97 D18 =J5 4052-800
Preparing wrappings for smoking prods., esp. cigarette paper - 22053B/12
GATR- 17.12.75 GATRUN ANSTALT A92 D22 =US 4155-786
Thermoplastic package strip sterilisation - 49028Y/28
GEMA- 16.01.74 ANSTALT GEMASS C03 D17 E13 (D13) =HU T016-611
Increasing yields in acid hydrolysis of pentosan contg. materials - 39616Y/22
GENM 23.11.77 GENERAL MILLS CHEM A11 D22 E16 (A14 A96) =DT 2838-530
Hydrolysed grafted starch-polyacrylonitrile copolymer mixture - 01981B/02
GENO 23.07.70 GENERAL FOODS CORP D13 =DS 2136-479
Concentrating coffee extracts - 08721T/06
GENO 27.07.70 GENERAL FOODS CORP D13 #J7 9011-380
Prep. of powdered coffee drink mix - 62759T/39
GENO 15.05.74 GENERAL FOODS CORP D13 =CA 1054-437
Dry, free flowing beverage mix prodn. - 81482W/50
*GENO 06.12.74 GENERAL FOODS CORP D13 *CA 1054-438
Decaffeination process - 42458B/23
GENO 07.07.75 GENERAL FOODS CORP D23 (D13) =US 4156-031
Stable purified coffee oil prodn. - 06108Y/04
GENO 31.03.76 GENERAL FOODS CORP C03 D13 E12 (E34) =CA 1054-845
Preserving meat products having medium moisture content - 74386Y/42
GENO 02.09.76 GENERAL FOODS CORP D13 #CA 1054-439
Improved quality.decaffeinated coffee prodn. - 86890X/46
GENO 29.08.77 GENERAL FOODS CORP D13 E24 =FR 2401-622
Solubilising erythrosine food dye under acid conditions - 01971B/02
GENO 29.08.77 GENERAL FOODS CORP A97 D13 E23 =FR 2401-623
Stabilising erythrosine in acid food prods., esp. drinks - 04084B/03
*GENO 03.02.78 GENERAL FOODS CORP C03 D13 (D12) *BE -873-878
Proteinaceous fibres having meat-like consistency - 42430B/23
*GENO 17.08.78 GENERAL FOODS CORP D13 *PT --68-436
Making chewing gum with carbonated sugar content - B/23
*GIDR= 18.08.76 GIDROLIZPROM C03 D16 (D13) *SU -614-646
Microbial protein biomass prodn. - 43460B/23
GILL 18.08.75 GILLETTE CO D22 =CA 1054-302
Catamenial tampon formed as absorbent hollow cone - 30597Y/17
*GIUL- 26.11.77 GIULINI CHEMIE GMBH D21 *DT 2752-852
Dentifrice contg. fine poly:phosphate granulate - 42569B/23
GIVA 15.11.72 GIVAUDAN L & CIE SA D23 E15 =J5 4052-737
1-Isopropenyl-spiro-decen- or -decan-8-ones - 40237V/22
*GIVA 25.11.77 GIVAUDAN L & CIE SA D23 E14 *DT 2851-024
Substd. di:hydro-cinnamaldehyde perfume prepn. - 42697B/23
GIVA 00.00.78 GIVAUDAN L & CIE SA D23 E15 =CH -611-159
Prepn. of organoleptic isophorone derivs. for perfumery - 16070B/09
GOAV/ 19.06.74 GOAVEC J J D13 =CH -611-120
Dairy prods. heat treatment mixer-vessel - 77131W/47
*GRAI= 01.12.76 GRAIN PROC RES INST C03 D14 *SU -618-080
Granulated fish feed water-resistance measuring appts. - 43473B/23
GRIF/ 24.08.71 GRIFFIN G D D16 =DS 2241-690
Compost destacking and restacking machine - 08021W/05

HAAG- 19.10.71 HAAGSE BAKKERIJMACH D11 =DS 2250-119
Dough figure moulding machine - 25939U/19
HAAG- 05.09.77 HAAGSE BAKKHERIJMAC D11 =FR 2401-614
Dough portion moulding machine - 20310B/11
HAAR 19.04.74 HAARMANN & REIMER GMBH B05 D23 E14 (D13) =CH -611-258
2-Alkoxy-4-(1-propenyl)-phenols prepn - 65705W/40
HAHG 15.10.75 HAHN DR C KG D22 F07 =CA 1055-059
Elongated fibrous pressings transfer - 29356Y/17
HAND- 06.06.75 FA HANDTMANN A D12 #CA 1054-440
Prodn. of sausages with the same weight, length and dia. - 51148W/31
*HARS- 29.12.77 STEINZEUGW HARSCH D16 L02 *DS 2758-588
Ceramic or stoneware containers, esp. fermentation pots - 42493B/23
HASE 13.07.72 HASEGAWA PERFUMERY D23 E17 =J7 9011-285
6-Methylheptadiene derivs - 49346V/27
*HAUN 26.11.77 HAUNI-WERKE KORBER KG D18 *DT 2752-865
Applicator esp. for bronze powder to cigarette paper - 42574B/23
HAVE/ 08.01.76 HAVERSTOCK C B D22 #CA 1054-474
Closing skin surrounding surgical opening - 08907X/05
*HAYA/ 04.10.77 HAYAMI K D15 J01 *J5 4052-865
Treating waste combustion gas wash water from incineration of plastic - 43134B/23
HAYB 13.01.72 HAYASHIBARA BIOCHEM D13 =DS 2301-492
Low calorie food - 39769U/28
HAYB 30.09.77 HAYASHIBARA BIOCHEM A11 D17 F01 (D16) =J5 4052-793
Prods. based on new alpha-glucane - 30019B/16
*HEBE- 31.05.78 HEBENSTREIT GMBH D11 *DS 2823-865
Waffle iron roller - 42498B/23
*HEMS- 30.11.77 HEMSCHEIDT MASCH H D22 H07 *DT 2753-263
Ultraviolet ray sterilisation for hydraulic fluids - 42605B/23
HENK 29.07.76 HENKEL KG AUF AKTIEN A97 D22 (A25 D15) =GB 1547-001
Antimicrobial compsn. for treating industrial water - 08337A/05
HENK 21.11.77 HENKEL KG AUF AKTIEN C03 D13 =GB 2008-405
Growth-promoting animal feed - 40798B/22
HENK 21.11.77 HENKEL KG AUF AKTIEN C03 D13 =NL 7810-736
Growth-promoting animal feed - 40798B/22
*HENK 28.11.77 HENKEL KG AUF AKTIEN D23 E13 (D18 D21 D22 D25) *DT 2752-972
2-Acetyl-1,3-dioxan derivs. used as perfume components - 42591B/23
*HENK 30.11.77 HENKEL KG AUF AKTIEN B05 C03 D13 (D16) *DT 2753-309
Animal feedstuffs contg. antibiotic and proteolytic enzyme - 42612B/23
*HENK 02.12.77 HENKEL KG AUF AKTIEN A97 D25 (A26) *BE -872-461
Powdered detergent contg. silicone antifoam - 42420B/23
HENN- 29.08.77 HENNINGSEN FOODS D14 J08 =FR 2401-682
Horizontal spray dryer for food products etc. - 01958B/02
HITA 10.09.75 HITACHI KK D15 =GB 1547-220
Microbiological industrial wastes treatment - 22187Y/13
*HNKN 29.09.77 MINAMI NIPPON RAKUNO D13 *J5 4052-748
Fibrous high protein food prodn. - 43121B/23
HOCH/ 18.12.73 HOCHREIN H D15 M24 =CH -610-932
Detoxifying device for thermocatalytic quenching salts - 32494W/20
HOFA/ 22.04.77 HOFACKER-FREIFRAU F A96 D21 (A14 D22) =US 4155-890
Dental and surgical materials - 78561A/44
HOFF 21.08.74 HOFFMANN-LA ROCHE INC B05 D16 E15 =US 4156-100
Optically active (4R,6R)-4-hydroxy 2,6,6 trimethyl-cyclohexanone - 84765X/45
HOFF 30.11.75 HOFFMANN-LA ROCHE INC B07 D13 E24 (D21) =US 4156-090
Carotenoid astaxanthines and (15,15')-didehydro astaxanthines mfr. - 40323Y/23
*HOHN 05.10.77 HOHNEN OIL KK D13 *J5 4053-111
Mfr. of oil for iron plate cooking - 43161B/23
*HOKK- 03.10.77 HOKKAIDO TOGYO KK D15 (D17) *J5 4052-863
Treating Stephen's process waste water - 43132B/23
HORS/ 05.01.74 HORSTMANN G D22 =CH -611-252
Sterilisation of fluids and gases by ultraviolet radiation - 47896W/29
*HOSO 01.10.77 HOKKAIDO SODA LTD D15 E33 *J5 4051-989
Activating magnesia water treatment agent - 42914B/23
*HOUT/ 28.11.77 HOUT C D14 *DT 2803-773
Cheese rind planing machine - 42631B/23

ICIL 03.10.74 IMPERIAL CHEM INDS LTD D15 =CA 1054-729
Treatment of effluent by aeration - 31254X/17
*ICIL 13.06.75 IMPERIAL CHEM INDS LTD D15 (D16) *GB 1547-177
Treatment of sludge resulting from waste fermentation - 42784B/23
ICIL 02.08.77 IMPERIAL CHEM INDS LTD A97 D16 E13 (D17) =PT --68-373
Enzyme fixed to support - 08018B/05
*INAS- 03.10.77 INA SHOKUHIN KOGYO D13 (D21 D23) *J5 4051-984
Agar lyogel compsn. contg. glycerine in water - 42909B/23
INFL 07.08.73 INT FLAVORS & FRAGR INC D13 E13 =CH -611-288
Thiafuran and furanthiol flavouring agents for food - 14727W/09
INFL 28.09.73 INT FLAVORS & FRAGR INC D13 E15 (D16 E13) =CA 1054-846
Foodstuffs having enhanced grape flavour - 78664W/47
INFL 23.08.74 INT FLAVORS & FRAGR INC D13 E17 =CH -611-276
3-((2-Mercapto-1-methylpropyl) thio)-2-butanol - 67179W/40
*INFL 22.12.76 INT FLAVORS & FRAGR INC D13 E14 *US 4156-029
Isomer mixt. of 3-phenyl-acrolein derivs. - 43985B/23
INFL 08.06.78 INT FLAVORS & FRAGR INC D23 E14 =US 4155-867
2,4-Di:hydroxy-3,6-di:methyl-benzonitrile - 70662A/39
*INGR- 29.11.77 INGREDIENT TECHN CO D17 (D13) *DT 2851-627
Agglomeration of powdered solids, e.g. carbohydrate(s) - 42722B/23
INRG 07.06.77 INST NAT RECH AGRON C03 D13 (D16) =DK 7802-502
Nutritional protein prodn. from Trichoderma album - 89622A/50
INRG 01.09.77 INST NAT RECH AGRON D13 =FR 2401-617
Obtaining food proteins from vegetable materials esp. soya - 16009B/09
*ITDI- 25.11.77 INT DIAGNOSTIC TECH A96 B04 D16 J04 *GB 2008-747
Surface immunoassay with two different test surfaces - 42821B/23
ITII- 22.11.77 ITI ICEBERG TRANSPORT D15 H01 =GB 2008-513
Self-stabilising floating tower - 40841B/22
ITST- 18.11.77 INT STOCK FOOD CORP D13 =GB 2008-380
Silage conservation and fermentation control - 40884B/22
ITWA- 03.06.77 INT WATER SAVING SY D15 =SW 7800-936
Toilet system which reduces effluent to microparticle size - 89601A/49

*JACC/ 22.11.77 JACCARD A R D12 *DT 2850-623
Meat tenderising tool - 42673B/23
*JAOR 13.07.77 JAPAN ORGANO KK D15 E33 *J5 4039-371
Mixing waste acidic and alkaline solns. - 42827B/23
*JEAN/ 02.09.77 JEANMOUGIN M D15 J02 (D14) *FR 2401-694
Appts. for incorporating liq. or gaseous additives in fluid media - 42736B/23

*JESS/ 30.12.77 JESSEN K T D13 *US 4156-023
Method for colouring cherries - 43981B/23
JETC- 01.08 77 JET-CERAMIC DENTAL D21 =SW 7802-696
Dental prosthesis working model prodn. - 15961B/08
*JOHJ 22.12.75 JOHNSON & JOHNSON A96 D21 (A25 D16) *US 4155-868
Stable, water soluble denture cleaner tablet - 43917B/23
JOHJ 31.08.77 JOHNSON & JOHNSON A81 D22 G03 (A11 A17) =FR 2401-662
Pressure sensitive adhesive compsn. - 29695B/15
*JONE/ 19.03.76 JONES C T D15 *CA 1054-728
Coal-base landfill leachate treatment for contaminant removal - 42465B/23

KABI 05.12.74 KABI AB B04 D16 =HU T016-637
Polypeptide chromogenic substrates for serine proteases - 31921X/18
KAHL- 25.04.77 MASCH FAB KAHL GMBH D15 =DS 2718-269
Oblong sewage settling tank - 78565A/44
KAKI/ 19.03.76 KAKIHARA M D15 J03 =J5 2113-548
Electrolytic concn. of sludge using multielectrode cell - 43379B/23
*KAKI/ 19.03.76 KAKIHARA M D15 J03 *J7 9011-616
Electrolytic concn. of sludge using multielectrode cell - 43379B/23
*KANE 28.09.77 KANEBO KK D21 E17 *J5 4052-734
Cream or milk-like skin cosmetics - 43116B/23
*KANF 04.10.77 KANEGAFUCHI CHEM KK B05 D16 *J5 4052-790
Coenzyme/Q prepn. from microorganism cell body - 43127B/23
*KAOS 28.11.77 KAO SOAP KK A97 D25 E17 (A14 A25 E14) *DT 2850-256
Low viscosity aq. stable liq. cleansing compsn. - 42661B/23
KAWA- 22.05.74 KAWAMYRA SANGYO KK D16 E17 =J7 9011-397
Alcohol prodn. using Chlorella - 16437A/09
*KDPO= 22.11.76 KRASD POLY D16 *SU -618-098
Leaf tobacco tube forming apparatus - 43490B/23
KEND 08.08.74 KENDALL CO A96 D22 F04 =CA 1054-889
Surgical dressing,supplying controlled light pressure - 81147W/49
*KERJ 30.11.77 KERNFORSCHUNGS JULICH D15 E35 K07 (E16) *BE -872-416
Treatment of waste soln. contg. ammonium nitrate - 42412B/23
*KEWA 21.01.77 KEWAUNEE MFG CO A96 D21 *US 4155-994
Conditioning hair - 43971B/23
*KGOB= 03.06.75 KIRG OBSTETRICS D13 *SU -618-088
Prodn. of milk-based dietary products for children - 43480B/23
*KHOR= 10.01.77 KHARK ORTHOPEDICS B04 D16 *SU -618-107
Vertebra degenerative dystrophy treatment - 43491B/23
*KIBU- 30.09.77 KIBUN KK D13 (D16) *J5 4052-754
Bean milk drink prepn. - 43122B/23
*KIBU- 30.09.77 KIBUN KK D13 (D16) *J5 4052-755
Bean milk drink prepn. - 43123B/23
*KIFO= 25.02.76 KIEV FOOD IND TECH D16 *SU -618-408
Baker's yeast culture unit - 43654B/23
*KIFO= 25.10.76 KIEV FOOD IND TECHN D12 *SU -618-138
Centrifugal separator of fat from meat refuse - 43511B/23
*KINJ- 04.10.77 KIN-JIRUSHI WASABI D13 *J5 4052-743
Soybean protein food material prepn. - 43120B/23
KIRI 31.08.77 KIRIN BEER KK D16 =FR 2401-990
Brewers wort prepn. - 47091A/26
*KIUC/ 07.11.77 KIUCHI A D16 *WP 7900-282
Method of dispersing light in a liquid culture medium - 44015B/23
*KOBA/ 00.00.74 KOBAYASHI K D15 *J5 4053-668
Removing smell from exhaust gas from night soil - 43282B/23
KOBA/ 05.02.75 KOBAYASHI K A96 D22 =J7 9011-365
Medical plastic mfr. - 72922X/39
*KOBM 01.10.77 KOBE STEEL KK D15 J01 *J5 4051-982
Desalination of sea water - 42908B/23
*KOBM 28.11.77 KOBE STEEL KK D15 M14 (M26 M27) *DT 2821-572
Reactive anode preventing corrosion of copper alloys - 42638B/23
*KOND/ 06.09.77 KONDO Y B04 D16 *J5 4041-323
Adjuvant useful in immunological treatment of cancer - 42829B/23
KONN 31.05.73 GIST-BROCADES NV B04 D13 (D12) =CH -611-033
Antibiotic residues determination in milk and meat - 87202V/51
KONN 20.02.76 GIST-BROCADES NV D16 =US 4155-813
Fermentation process pref. for vinegar prodn. - 42611A/24
KOWA 24.03.77 KOWA KK B03 D16 =FR 2401-992
Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - 73117A/41
KOYA/ 19.07.77 KOYAMA N D12 =BR 7804-635
Animal carcass splitting machine - 10222B/06
*KRAM/ 19.07.76 KRAMER H D11 *US 4155-656
Dough kneader with paddle rotated by motor - 43828B/23
KRFT 30.11.77 KRAFT INC D13 =DT 2850-635
Cheese-making process using concentrate of protein fat and salts - 25998B/14
KRPP 19.11.77 KRUPP F GMBH D14 (D23) =NL 7811-114
Multistage screw press to expel liq. from oil seed etc. - 22106B/12
*KSPO= 18.03.77 KISH POLY D18 (D16) *SU -618-097
Fermenting prepressed and warmed tobacco - 43489B/23
*KURE 28.11.77 KUREHA KAGAKU KOGYO D12 E35 *DT 2752-985
Removing malodorous basic components from gases - 42594B/23
*KURS 29.09.77 KURARAY KK D13 *J5 4052-748
Fibrous high protein food prodn. - 43121B/23
KURS 30.09.77 KURARAY KK D13 (D12) =J5 4052-749
Stable, elastic, chewable fibrous milk protein meat substi
28172B/15
*KURS 03.10.77 KURARAY KK D23 E17 (D13) *J5 4052-021
Prodn. of beta-cinensal or its acetal - 42926B/23
*KYOK- 03.10.77 KYOKUTO FATTY-ACID D15 *GB 1546-992
Removal of suspended solids from waste water - 42776B/23
KYOW 17.07.74 KYOWA FERMENTATION KK B05 D16 E16 =CA 10
544
L-Lysine production by high yield fermentation - 10537X/06

LAMB/ 23.07.76 LAMBERT D N D15 #CA 1054-331
Ultraviolet water purifier with baffles - 61542X/32
LANG- 14.06.77 LANGEN H J ZONEN D12 =BR 7703-858
Meat processing appts. - B/15
*LARI/ 07.10.75 LARIONOV B A D13 *SU -618-094
Dried potato puree manufacture - 43486B/23
LARS/ 07.10.74 LARSEN L T C03 D12 (D13) =CA 1054-435
Raw fish bait product - 05496X/03
LARS/ 19.08.77 LARSSON K D13 E11 (E13) =J5 4052-003
Sepg. polar lipid(s) from non-polar lipid(s) for use as food additiv
18322B/10
*LAWR/ 01.04.77 LAWRENCE A L D22 *US 4155-331
Cryogenic preservation of multicellular organisms e.g. shrimp larv
43791B/23
LEBO/ 12.04.76 LEBO W R C04 D15 #CA 1054-730
Treatment of liq sewage and waste - 45763X/24
*LEIB- 25.11.77 LIEBHERR-MISCHTECHN D11 J02 *DT 2752-621
Universal adjustment for mixer paddle arm - 42551B/23
LEPE 05.05.72 GRUPPO LEPETIT SPA B02 D16 =J4 9054-589
Rifamycin b - 63408U/42
LEPE 05.05.72 GRUPPO LEPETIT SPA B02 D16 =J7 9011-399
Rifamycin b - 63408U/42
LEPE 30.08.74 GRUPPO LEPETIT SPA B02 D16 =CA 1054-959
Anti-bacterial rifamycins P, Q, R and U prepn. - 05629X/04
*LERE= 10.08.76 LENGD REFRIG IND D11 *SU -618-091
Prodn. of paste for cheese-cake mfr. - 43483B/23
LIEB/ 21.07.76 LIEBERMANN B E D14 =CA 1054-470
Cooking appts. using liquid sprays - 68410Y/38
LIOC 29.09.77 LION DENTIFRICE KK D13 E13 =J5 4052-064
Spiro-5-isopropyl-bi:cyclo(3,1.0)hexane-2,2' oxirane isomers
76755A/43
LIOC 22.11.77 LION DENTIFRICE KK A60 B07 D13 E14 (D21) =GB 2008-
571
Di:hydroxy-di:hydroxy-phenyl-octyl-phenone antioxidant - 40837B/22
LIOY 17.07.72 LION FAT & OIL KK D25 =DS 2336-182
Granular washing agents and detergents - 13841V/08
LIOY 03.09.74 LION FAT & OIL KK A91 D15 H05 J01 =J7 9011-610
Treatment of waste water contg oil - 34778X/19
*LOTT 22.11.77 LOTTE KK D13 *DT 2850-989
Chewing gum compsn. contg. liq. centre - 42693B/23
LYCK 18.10.77 LYCKEBY STARKEISEFORADIN D13 =NO 7803-516
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09

MACA- 03.08.72 MACANDREWS & FORBES B05 D13 E15 (B02 B03 D21
E11) =DS 2337-765
Low calorie sweetener compsn - 14877V/08
*MACA- 25.11.77 MACANDREWS & FORBES B05 D13 E19 *DT 2851-055
Sweetener for food and drinks - 42699B/23
*MACA- 25.11.77 MACANDREWS & FORBES B05 D13 E19 *DT 2851-082
Low calorie food sweetener compsn. - 42700B/23
*MAGA= 28.04.77 MAGARACH WINE VINE D16 *SU -618-410
Oil-based compsn. for protecting wines and other volatile liquids
43656B/23
*MAGY 11.03.77 MTA MUSZAKI KEMIA D13 *HU T016-519
Fruit juice, essence or aroma concentration - B/23
MARL 22.12.75 MARION LABS INC B04 D16 =CA 1054-576
Anaerobic culture collecting and transporting appts. - 25064Y/14
MASW 24.08.77 MASCH BUCKAU WOLF R D17 =FR 2401-702
Flat-bottom sugar centrifuge - 18235B/10
MATC- 19.10.77 MATCON RADGIVENDE D12 =NO 7803-533
Small fish processing method - 33640B/18
MATS 30.12.75 MATSUTANI CHEM IND LTD D21 M22 #CA 1054-336
Centrifugally casting metal dental restorations - 38300Y/22
MATS- 22.07.75 MATSUMOTO DEN COLL D21 L02 M13 =J7 9011-638
Porcelain dental crown using metal substrates - 07508Y/05
*MATU 29.09.77 MATSUSHITA ELEC IND KK D16 J03 *J5 4051-595
Enzymatic electrode - 42856B/23
*MAXF- 03.03.76 MAXFIBE INC D13 *US 4156-021
Simulated human food prod. - 43980B/23
MCDD 29.08.77 MCDONNELL DOUGLAS CORP B04 D16 =FR 2401-995
Testing Escherichia coli sensitivity to antibacterials - 84100A/47
MEAC 22.04.74 MEAD CORP A89 D15 G06 =CA 1054-423
Reducing photographic wash-water for re-use - 76071W/46

MEAT= 20.08.76 MEAT CHEESE IND RES D13 *SU -618-089
Smooth butter prodn. from high fat cream - 43481B/23

MEAT= 15.12.76 MEAT DAIRY IND MIN D13 (D12) *SU -618-096
Rapid freezing of food products - 43488B/23

MECC/ 24.10.77 MECCIA A C D14 *BR 7707-095
Heated wall structure - B/23

MEIJ 16.04.73 MEIJI SEIKA KAISHA B02 D16 =CH -611-304
Cephalosporin C derivs - 63093V/36

MEIJ 31.08.77 MEIJI SEIKA KK D16 =FR 2401-990
Brewers wort prepn. - 47091A/26

MEIJ 04.10.77 MEIJI KK B04 D16 =J5 4052-797
Broad-spectrum antibiotic BN-200 - 28137B/15

MERE 22.05.75 MERCK PATENT GMBH A60 D21 E32 G01 (G02) =CA 1054-755
Nacreous pigments based on mica - 90645X/49

MERI 15.02.74 MERCK & CO INC B04 D16 =CH -610-760
Removing pyrogenic material from aq. solns. - 53864W/32

MERI 22.11.76 MERCK & CO INC A11 D16 =GB 1547-030
Bio-gum recovery from aq. media by heating - 38819A/22

MERI 09.02.77 MERCK & CO INC B04 D16 =PT --67-632
Syncytial respiratory virus vaccine prepn. - 60477A/34

MERI 18.04.77 MERCK & CO INC B02 C02 D16 =DK 7801-502
Antibacterial antibiotic (N)-acetyl-dehydro-thienamycin - 76857A/43

MERI 15.09.77 MERCK & CO INC B02 C02 D22 E13 =J5 4052-092
N-Substd.-thienamycin S-oxide and S-di:oxide derivs. - 26433B/14

MERI 12.10.77 MERCK & CO INC B02 C02 D18 E13 (D13 D21) =DK 7804-520
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) - 37528B/20

*MERI 28.04.78 MERCK & CO INC A91 D15 F06 (A11 A14 A87 F09) *US 4155-885
Amphoteric graft copolymers - 43925B/23

*META- 19.10.77 METALURG FERROARTE D14 *BR 7706-988
Drying chamber for cereals - B/23

MEYN/ 12.01.77 MEYN P D12 =US 4155-146
Extractor for cloaca of poultry - 34990A/20

*MEZO- 30.08.78 MEZOGEPFEJLESZTO D16 *HU H002-434
Automatic greasing unit for wine presses - B/23

MICR- 06.09.77 MICROLIFE TECHNICS D16 (D13) =FR 2401-996
Bacteria concentrate for fermenting sausages and other meat prods. - 20240B/11

*MICR= 14.02.75 MICROBIOL INST C03 D16 *SU -561-313
Plant growth stimulating compsn. - 43441B/23

*MICR= 30.06.76 MICROORANISM GENETI D16 *SU -618-413
Animal feed lysine concentrate prodn. - 43659B/23

*MIDI= 12.04.76 MINSK MEAT DAIRY IN D12 *SU -599-780
Pig carcass dresser - 43447B/23

MILL/ 27.02.76 MILLER G E B07 C03 D16 (D13) =CA 1054-876
Automatic inoculation of fowl eggs - 59038Y/33

*MINN 19.04.76 MINNESOTA MINING CO D21 (D25) *US 4155-870
Non-abrasive skin cleaning compsns. - 43919B/23

*MITC 29.09.77 MITSUI PETROCHEM IND KK D16 *J5 4052-787
Culturing plant cells - 43126B/23

*MITC 04.10.77 MITSUI PETROCHEM IND KK A88 D15 J01 (A17 D16 D21) *J5 4052-682
Micro- or ultrafiltration polyolefin membrane mfr. - 43087B/23

MITK 22.12.75 MITSUI TOATSU CHEM INC D15 J01 =J7 9011-155
Absorbent mat used to remove oil from water - 56324Y/32

MITN 23.04.74 MITSUBISHI GAS CHEM IND D16 =J7 9011-394
Bacterial cell separation - 04930A/03

MITO 21.10.75 MITSUBISHI HEAVY IND KK D15 J01 =J7 9011-613
Lowering COD of waste water - 40573Y/23

*MITQ 06.10.77 MITSUBISHI ELECTRIC CORP D15 E34 J04 (J01) *J5 4054-095
Determining concn. of hypochlorite in soln. - 43325B/23

*MITT- 25.11.77 MITTEX ANST D15 J01 *DT 2752-748
Water collection from air humidity - 42557B/23

MITU 30.11.71 MITSUBISHI CHEM IND KK A26 D15 =J7 9010-999
Chelate-forming amino acid addition polymers - 35183U/25

MITU 08.12.71 MITSUBISHI CHEM IND KK A26 D15 =J7 9011-000
Chelate-forming amino acid addition polymers - 35183U/25

MITU 24.08.77 MITSUBISHI CHEM IND KK A91 D15 (A21) =US 4155-847
Cationic flocculant esp. for treating effluents - 20258B/11

*MITU 18.11.77 MITSUBISHI CHEM IND KK B04 D16 *WP 7900-304
Immune function regulator production - 44023B/23

MJOL- 23.11.77 MJOLKCENTRALEN ARLA D13 =DT 2850-495
Protein concentrate prodn. from skimmed milk - 24015B/13

MNKN 30.09.77 MINAMI NIPPON RAKUNO D13 (D12) =J5 4052-749
Stable, elastic, chewable fibrous milk protein meat substitute - 28172B/15

MOEB/ 24.11.77 MOEBUS O D16 E35 =DT 2752-485
Growing yeast on lactose-contg. dairy residues - 49085A/27

*MOGE- 24.07.78 MOGEN DAVID WINE D16 *US 4156-026
Improving stability and flavour of wine - 43983B/23

*MOGE= 06.08.76 MOSC GEOLOG SURVEY D15 *SU -618-122
Bulk filter for water purification - 43498B/23

MOLK- 15.07.77 MOLKEREI A MULLER D13 =DS 2732-129
Prepn. of cheese from conc. milk in single vessel - 84150A/47

MOLN 31.08.77 MOLNLYCKE AB D22 =FR 2401-657
Sanitary towel - 20286B/11

MOME= 05.09.77 MOSC MEAT DAIRY IND D16 (D12 D15) #FR 2401-989
Nutritious medium for fodder yeast mfd. from manure, etc. - 66864Y/38

*MOMO= 22.02.77 MOSC MOLOKO PLANT D13 *SU -618-087
Curds defrosting apparatus - 43479B/23

*MONM/ 03.10.77 MONMA K D22 G04 *J5 4051-968
Improving condition of air in factories, automobiles etc. - 42896B/23

MONS 27.12.76 MONSANTO CO B05 D13 E14 =GB 1546-979
Alpha-L-aspartyl-L-phenylalanine methyl ester prepn. - 45838A/26

MONS 22.08.77 MONSANTO CO A25 D25 (A97) =J5 4052-196
Polymeric acetal carboxylate detergent builders - 18418B/10

MORG 04.07.75 MORINAGA MILK KK B04 C03 D13 =CA 1054-436
Flowable lactulose powder prodn. from lactose soln. - 86973X/47

*MOSN 15.12.76 MOSCOW NAT ECONOMY INST D13 (D12) *SU -618-096
Rapid freezing of food products - 43488B/23

*MOSO- 22.07.75 MOSONMAGYAR MEZOGAZ D13 *HU T016-532
Flour classifier - B/23

MRSC 10.10.77 MARS INC D13 (D12) =SW 7810-548
Reducing odour of fish-based food prods. - 27884B/15

MUAG 11.10.77 HUNGARIA MUANY AGFELDOL A97 D15 #DK 7704-511
Packing unit for process column or sewage purification - 82239A/46

MUAG 11.10.77 HUNGARIA MUANY AGFELDOL A97 D15 #NO 7703-467
Packing unit for process column or sewage purification - 82239A/46

MULL- 07.05.75 FA MULLER H D17 E13 =CH -611-134
Dextrose and dextrin prodn. from starches contg. proteins - 89076X/48

MUNT 31.08.77 MUNTERS C AB D15 J08 =FR 2401-704
Spray device for distribution of liquid over a treatment bed - 21212B/11

*NAAR 18.11.77 NAARDEN INT NV D13 E13 *NL 7712-745
Prepn. of sweet, buttery flavouring for food - 43385B/23

*NAAR 18.11.77 NAARDEN INT NV D13 E13 *NL 7712-746
Enamine from alkyl-4-hydroxy-di:hydro-furanone-3 derivs. as flavouring - 43386B/23

*NADI/ 15.09.75 NADIG G D21 *CH -611-157
Hair lotion prodn. - 42485B/23

NAKA- 08.09.75 NAKANO SUTEN KK D13 =J5 2034-953
Processed octopus mfr. - 43373B/23

*NAKA- 08.09.75 NAKANO SUTEN KK D13 *J7 9011-375
Processed octopus mfr. - 43373B/23

NATR 23.10.73 NATIONAL RES DEV CORP A96 B04 C03 D16 =CH -610-907
Pepsin inhibition using sulphonated polystyrenes - 31007W/19

*NATY 25.02.76 NABISCO INC D14 *US 4155-293
Continuous cooking appts. e.g. for soybean prods. - 43785B/23

NEST 08.04.74 SOC PROD NESTLE SA D14 =J7 9011-372
Foodstuff bacteriostat - 69134W/42

NEST 07.02.75 SOC PROD NESTLE SA B05 D13 E16 =CA 1055-046
Epsilon (gamma-glutamyl)-lysine prodn. - 65237X/35

NEST 12.02.75 SOC PROD NESTLE SA D13 F01 =US 4156-028
Highly nutritious proteinaceous fibres prodn. - 69010X/37

NEST 07.07.75 SOC PROD NESTLE SA D13 =GB 1547-197
Milk reconstituted from aq. phospho alkaline earth casein - 04189Y/03

NEST 09.07.75 SOC PROD NESTLE SA D13 =GB 1547-236
Cheese powder prepn. from skim soln. - 06000Y/04

NEST 06.08.75 SOC PROD NESTLE SA D13 =GB 1547-242
Coffee solubles extracted from roast ground coffee - 94194X/50

*NEST 17.03.76 SOC PROD NESTLE SA D13 *US 4156-024
Soluble tea prod. prepn. - 43982B/23

NEST 09.06.76 SOC PROD NESTLE SA D13 #US 4156-018
Cheese powder prepn. from skim soln. - 06000Y/04

*NEST 29.12.77 SOC PROD NESTLE SA D13 *US 4156-030
Flavouring and colouring extract from cocoa shells - 43986B/23

NEWG- 17.11.77 NEW GENERATION FOOD D13 =NL 7811-379
Expanded foodstuff prepd. from high protein wheat - 23989B/13

*NIHA 13.07.77 NIPPON MINING KK D15 E33 *J5 4039-371
Mixing waste acidic and alkaline solns. - 42827B/23

NILL- 12.10.77 N ILL RESEARCH A96 D22 (A14) #DK 7704-521
Sealing plug for skin opening e.g. after colostomy - 28745A/16

NIPE 25.06.76 NIPPON PETROCHEM KK D15 =US 4155-848
Oxidation of waste liquids in pressure cylinders - 04654A/03

*NISB 29.09.77 JAPAN TOBACCO & SALT PUB D18 E35 *J5 4052-798
Removing nicotine from tobacco - 43131B/23

*NISH/ 04.10.77 NISHIMIYA T D21 M22 *J5 4052-616
Dental casting alloy prodn. - 43052B/23

NISW 12.09.73 NISSHIN OIL MILLS KK D13 =J5 0052-249
Food foaming agent prodn. from protein e.g. soybean protein - 43372B/23

*NISW 12.09.73 NISSHIN OIL MILLS KK D13 *J7 9011-370
Food foaming agent prodn. from protein e.g. soybean protein - 43372B/23

*NISY 04.07.70 NIPPON SYNTH CHEM KK A96 D22 *J7 9011-640
Catamenial tampon - 43381B/23

*NMHB 09.09.78 NORDISCH MASCH R BAADER D12 *DS 2839-322
Fish gutting machine - 42501B/23

*NOBE/ 05.10.77 NOBEHARA K D15 J09 *J5 4052-674
Burning heavy metal-contg. sludge - 43080B/23

*NODA 29.09.77 NODA INST SCI RES B04 D16 *J5 4052-795
Spore-formation inducing factor SF-1 - 43129B/23

*NORD- 21.12.78 NORDON-IND METALURG D16 *BR 7808-468
Evapn. of wine residues - B/23
NORM- 03.12.75 NORM AMC AG C04 D15 =CH -611-253
Composted humus continuously produced from wet biological sludge - 19990Y/12
NORV- 30.11.77 NORVIDAN ENGG APS D14 =BE -872-443
Ring mould press for fodder pellets - 42688B/23
*NORV- 30.11.77 NORVIDAN ENG APS D14 *DT 2850-910
Ring mould press for fodder pellets - 42688B/23
*NOVA/ 19.10.77 NOVAK L J B04 D16 J01 *US 4155-846
Multichamber chromatography column - 43906B/23
NOVO 13.03.75 NOVO INDUSTRI A/S D17 E13 (D16) =GB 1547-223
Continuous isomerisation of glucose syrup - 74328X/40
NYLE- 28.11.74 NYLEX CORP LTD A97 D15 =CA 1055-169
Carrier for biological waste water treatment - 63759X/34

OLIN 31.08.64 OLIN CORP A97 D18 =DS 1517-316
Cellulosic cigarette filter tips with improved - 66630P/00
OOKA- 17.12.76 OOKAWARA SEISAKUSHO B07 D14 =J7 9011-263
Granulating drugs or foodstuffs - 57714A/32
OREA 01.12.66 L'OREAL SA D21 E24 #US 4155-934
Hair dye compounds and compns - 38620R/22
OREA 16.05.74 L'OREAL SA A96 D21 (A26 D25) =CH -611-156
Quaternised polymers for cosmetic compsns. - 80221W/49
OREA 30.12.74 L'OREAL SA A96 D21 =CH -610-759
Hair lacquer and lotion preparations - 54520X/29
OREA 19.08.77 L'OREAL SA D21 E14 (E12) =FR 2401-900
Hair colouring compsn. contg. oxidn. dyes - 14189B/08
OREA 15.11.77 L'OREAL SA A96 D21 =GB 2008-433
Cosmetic compsn. based on aq. spherule dispersions - 37155B/20
*ORLO= 01.10.74 ORLOVKA RES INST D18 *SU -618-415
Helical blades roller assembly - 43661B/23

*PALF/ 28.09.77 PALFI G D15 *HU H002-437
Soda syphon with improved distributor - B/23
PARD 04.09.73 PARKSON CORP D23 =CA 1054-629
Refining and deodourising glyceride fats and oils - 20358W/12
*PASE 31.10.78 PASSAVANTW MICHELBACHER D15 J01 *DS 2847-314
Bar screen cleaning device - 42502B/23
PATP- 02.09.77 PATPAN INC D18 J08 =FR 2402-171
Flat material drying machine - 20291B/11
PCAR 30.06.75 WOELLNER-WERKE A97 D25 G04 =DS 2529-096
Cold cleaning fat soiled solid surfaces - 07795Y/05
*PETL 24.01.77 PETROLITE CORP D23 *US 4155-924
Refining organic liquid esp. vegetable oil - 43941B/23
*PETR= 28.04.77 PETROL ENG RES INST D16 *SU -618-410
Oil-based compsn. for protecting wines and other volatile liquids - 43656B/23
*PFIZ 23.10.69 PFIZER INC D16 E17 *US 4155-811
Direct microbiological prodn. of citric acid - 43889B/23
PFIZ 27.03.74 PFIZER INC A96 B04 D16 =CH -610-908
Stabilized enzyme compsns - 67308W/41
*PFIZ 07.10.77 TAITO PFIZER KK A89 D16 J04 (A11) *J5 4054-096
Substrate for determn. of amylase - 43326B/23
PFIZ 15.11.77 PFIZER INC D16 H01 =GB 2008-600
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
PFIZ 18.11.77 PFIZER INC B05 D16 E17 =NL 7811-353
2,5-Di:keto-gluconic acid preparation - 38984B/21
*PFIZ 30.11.77 PFIZER INC B05 D16 E12 *US 4155-812
Sodium, potassium or ammonium 2-keto-L-gulonic acid prepn. - 43890B/23
PHIM 08.08.77 PHILIP MORRIS INC D18 =PT --68-394
Swelling tobacco by impregnating with liquid carbon di:oxide - 87871A/49
*PHYS= 25.01.72 PHYSICAL CHEM RES D15 E14 K08 *SU -431-122
phenol and organic cpds. removal from aq. waste soln. - 43421B/23
*PHYT= 18.02.70 PHYTOPATHOLOGY RES C03 D16 *SU -302-914
Grain crop antifungal treatment - 43402B/23
*PHYT= 02.12.71 PHYTOPATHOL RES INS B04 C03 D16 *SU -405-235
Pharmacological antifungal antibiotic prepn. - 43417B/23
*PHYT= 29.03.73 PHYTOPATHOL RES INS B04 C03 D16 *SU -508-151
Ternatin antifungal antibiotic prodn. - 43433B/23
*PHYT= 17.12.74 PHYTOPAPHOL RES INS B04 C03 D16 *SU -517-198
Antifungal antibiotic pharmaceutical prepn. - 43435B/23
PICA- 30.05.75 PICA D15 J01 =CH -611-251
Carbon filter to replace sand in treating polluted water - 77595X/42
PIFF/ 12.11.75 PIFFERI P G B07 D13 E24 (D21) =US 4156-077
Extracting red anthocyan dye from litmus seeds - 58037Y/33
*PLAC 24.11.77 MAX PLANCK GES WISSENSCH B05 C01 D13 E11 (D25) *DT 2752-553
Ammonio-alkyl phospholipid analogues - 42546B/23
*POKK 04.10.77 POLA KASEI KOGYO KK D21 E19 *J5 4052-733
Skin cosmetics - 43115B/23
POPP/ 28.10.75 POPPER K D22 F07 =US 4155-123
Deodorizing T-shirt with solid anion exchanger matl. - 84526W/51
*POTA= 16.08.76 POTATO PROP RES INS D13 *SU -618-095
Powdered potato mash prodn. - 43487B/23
PROC 26.06.78 PROCTER & GAMBLE CO D25 E19 #US 4155-855
Pourable, water dispersable conc. liq. fabric softener - 08406B/05
PROT= 06.01.75 PROTEINS BIOSYNTH B01 C03 D16 (B05 D13) # T016-610
Erogosterol and ubiquinone 9 prodn - 00267X/01
*PROT= 18.03.77 PROTEIN BIOSYNTHESI D17 *SU -618-414
Inversion of sugar solns. from hydrolysed plant waste - 43660B/23
PRZE- 16.04.73 INST PRZEMYSLU SKOR D18 =HU T016-612
Nubuck leather surface finish - 76176V/44

*RALS 25.10.76 RALSTON PURINA CO D13 E17 *CA 1054-434
Preservation of wrapped foods - 42457B/23
*RAND/ 09.08.77 RANDOLPH E A D17 *US 4155-774
Controlling growth rate of sucrose crystals in evaporator - 43872B/23
RARE= 08.04.76 RARE METALS IND RES D21 M26 #DS 2615-399
Gallium copper tin dental filler alloy - 36820Y/21
*REAP- 30.08.77 LAB RECH API D16 *FR 2401-994
Spreading microorganisms on cultivating gel in Petri dish - 42755B/23
RESH 10.01.73 RES INST MED CHEM INC B01 C03 D13 =CA 1055-011
1-Alpha-hydroxy vitamin D derivs - 54692V/30
RHEO- 10.03.75 RHEON AUTO MACH CO D11 =CA 1054-449
Multilayer pastry machine - 74285X/40
RHON 14.04.76 RHONE-POULENC INDUSTRIES A88 C03 D18 (C04 D13) =DS 2716-562
Ultrafiltration of used depilating liquor - 74154Y/42
RHON 12.05.76 RHONE-POULENC INDUSTRIES A11 D15 E33 F09 =U 4155-845
Treatment of pulp mfr. waste solution - 01186A/01
RHON 26.05.76 RHONE-POULENC INDUSTRIES A96 B04 D16 E19 (B05) =GB 1547-077
Amino-acylases immobilised on inorganic supports - 84719Y/48
RHON 03.06.77 RHONE-POULENC INDUSTRIES D25 E33 =DK 7802-470
Type 4A aluminosilicate prepn., esp. as detergent additive - 87857A/4
RHON 03.10.77 RHONE-POULENC INDUSTRIES B03 C02 D16 #J5 4052- 792
Antifungal di:amino acid and lactam - 08295A/05
RIGH/ 11.11.75 RIGHETTI G D15 =CH -610-870
Water purificn. by oxygen injection - 34820Y/20
*RILE/ 01.11.76 RILEY H W D22 E37 *US 4155-975
Deodorising urine deficient livestock manure - 43964B/23
*RITT- 24.11.77 ODENWALDW RITTERS D22 K07 *DT 2752-481
Mobile or stationary multi-purpose disinfector decontaminator 42537B/23
ROHM 28.10.69 ROHM & HAAS CO D15 F09 J01 =DS 2051-200
Decolourising waste bleaching liquors from - 32137S/19
ROHM 30.08.77 ROHM & HAAS CO A88 D15 J01 (A14 A91) =FR 2401- 686
High flux cation-rejecting membrane for water deionisation - 85961A/4
ROHM 30.08.77 ROHM & HAAS CO A88 D15 J01 (A14 A91) =J5 4052- 683
High flux cation-rejecting membrane for water deionisation - 85961A/4
*ROTH- 23.11.77 METALL ROTH KG D15 *DT 2752-190
Small size sewage clarification tank - 42509B/23
*ROTO= 01.09.76 ROST TOBACCO WKS D13 *SU -618-090
Curds manufacture with improved prod. storage stability - 43482B/23
*RUTH- 24.11.77 RUTHNER INDAN-LAGEN D15 *GB 2008-560
Refuse and sewage slurry composter - 42805B/23

*SAAR- 01.12.77 SAARBERG-FERNWARME D15 *DS 2753-537
Thermal sewage sludge treatment - 42492B/23
*SAKA/ 30.09.77 SAKAI H B04 D16 *J5 4052-001
Antibacterial substance I-851 - 42921B/23
SAKB 05.10.77 OTSUKA KAGAKU YAKUHIN D15 J04 =J5 4053-675
Deoxidising gas with soln. contg. hydrazine, quinone and hydroquinon 31849B/17
SALE- 07.07.77 SALEN INTERDEVELOP C03 D16 (D13) #GB 1547-063
Ensilaging plant for animal feedstuffs - 52575Y/30
*SANE 28.09.77 SAN EI CHEM IND KK A97 D13 *J5 4052-756
Preventing the pptn. of protein in acidic protein foods - 43124B/23
*SANE 04.10.77 SAN EI CHEM IND KK D13 E24 *J5 4052-740
Preventing fading of paprika pigment - 43118B/23
*SANE 04.10.77 SAN EI CHEM IND KK D23 *J5 4053-110
Antioxidant for fats and oils - 43160B/23
SANO 10.05.77 SANDOZ AG B04 D16 =PT --68-013
Cyclosporin D and its derivs. - 82080A/46
SANO 29.08.77 SANDOZ SA A97 D25 E19 (A25 A26) =FR 2401-986
Liq. detergent compsn. for cleaning hard surfaces - 17999B/10
*SANY 30.09.77 SANKYO KK A97 C03 D22 F09 *J5 4052-725
Dichlorofluanide or N-(dichlorofluoromethyl-thio) phthalimide soln. 43110B/23
SASA- 20.04.76 SASAKURA ENG CO D15 J01 =GB 1547-074
Transportable double-action vaporiser for distilling sea water 59448Y/34
SATA/ 29.10.75 SATAKE T D13 =US 4155-295
Rice polishing machine - 34730Y/20
*SATO/ 30.09.77 SATO A B04 D16 *J5 4052-796
Anticancer agent prepn. - 43130B/23

WY/ 18.12.75 SAWYER P N A96 D22 #CA 1054-312
Vascular collagenous graft prosthesis succinylation - 01528X/01
HD 14.06.75 SCHERING AG A60 C01 D22 F06 =GB 1547-258
Biocidal compsns. contg. (new) diptycho tin cpds. - 96287X/52
HE/ 06.08.77 SCHENCK G O D22 (D15) =PT --68-390
Multichamber sterilising photo-reactor - 12217B/07
HU 00.00.76 SCHULKE & MAYR GMBH D22 E19 H07 (D21) *DT 2752-
3
Preservative and disinfectant compsns. e.g. for cosmetics - 42512B/23
IE 30.11.77 SCIENCE UNION & CIE B04 D16 *BE -872-385
Depsipeptide extract of Fusarium equiseti - 42405B/23
NE= 04.01.77 SENEK WOOD MECH PRO C01 D22 E12 F09 (C03 E36) *SU
18-282
Wood decay and self-ignition preventing compsn. - 43572B/23
HEL 17.10.78 SHELL INT RES MIJ BV D23 E15 =GB 2008-573
Carvone prepn. - 36463B/19
HIO 25.08.77 SHIONOGI KK B02 C02 D22 E13 =PT --68-434
3-Thiadiazolyl-thiomethyl-oxa-de:thia-cephem derivs. - 01945B/02
HIP/ 19.10.77 SHIPPEY F R D15 J01 *US 4155-853
Reverse osmosis cell - 43909B/23
HIR- 27.08.77 SHIRAISHI KOGYO KK A60 D21 E33 G01 *J5 4037-099
Calcium carbonate granules coated with calcium phosphate - 42823B/23
HIR- 27.08.77 SHIRAISHI CHUO KENK A60 D21 E33 G01 *J5 4037-099
Calcium carbonate granules coated with calcium phosphate - 42823B/23
HIS 30.09.77 SHISEIDO KK A96 D21 *J5 4052-736
Manicure compsn. - 43117B/23
SICK- 24.11.77 SICK O KG D15 J04 *DT 2752-538
Halogen concentration control - 42544B/23
SIEI 01.02.78 SIEMENS AG D15 J04 *BE -873-868
Determn. of dissolved organic solids content in water - 42426B/23
SIEI 01.02.78 SIEMENS AG D15 J04 *BE -873-869
Automatic dosing of predetermined quantities of several liquids - 42427B/23
SIMM- 13.10.77 SIMMERING-GRAZ-PAUK C03 D13 =DK 7804-538
Activated feedstuffs prepn. - 31817B/17
SIMP- 21.04.78 SIMPSON J P & CO D16 *BE -873-963
Mechanised germination plant for malting cereal grain esp. barley - 42444B/23
SMED- 22.07.75 SMEDLEY-HP FOODS A91 D16 =US 4156-025
Liq. drinks clarification - 09751Y/06
SMHL 20.10.77 SIMON-HARTLEY LTD B04 D16 (D13 D15) =NO 7803-528
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08
SMIK 14.04.75 SMITH KLINE & FRENC D16 =CA 1054-906
Micro-organism culture making device - 53942X/28
SMIK 14.04.75 SMITHKLINE CORP D16 =CH -610-930
Micro-organism culture making device - 53942X/28
*SMIT/ 29.08.77 SMITH R E D16 E14 (E13) *US 4155-916
5-Nitro:salicylaldehyde Schiff's bases - 43940B/23
SNAM 11.05.73 SNAMPROGETTI SPA B05 D16 E16 =SU -618-037
Optically active amino acids prodn. - 69536V/40
SNAM 10.07.75 SNAMPROGETTI SPA A96 B04 D16 =SU -618-048
Improving oxidoreductase enzyme activity - 04317Y/03
SODE- 29.08.77 SODES SA D13 (D11) =FR 2401-615
Food prods contg. bran, gluten and flour - 22304B/12
SOLV 11.07.74 SOLVAY & CIE A97 D25 =CA 1054-631
Granular polyhydroxyacrylates of specified density/flowability - 07819X/05
*SPEI- 02.09.77 SPEICHIM SA D23 J01 *FR 2401-685
Continuous solvent extractor for oily grains - 42733B/23
*STAD 22.09.77 STANDARD OIL CO (IND) D15 E11 *US 4155-869
Scale inhibitors contg. phosphate partial salts - 43918B/23
STAU 16.08.74 STAUFFER CHEMICAL CO C03 D13 =CH -610-726
2,6-Dialkyl-9-aryl-3-nonyl alkyl ethers - 16835X/10
STAU 14.08.75 STAUFFER CHEMICAL CO C04 D13 E36 =GB 1547-213
Food grade phosphoric acid prodn. - 92298X/49
STEF/ 30.06.76 STEFFENS B D22 F04 =DS 2629-381
Feminine hygiene tampon mfr. - 04361A/03
STEI 30.08.77 STEINECKER A MASCH GMBH D16 =FR 2401-991
Plant to mfr. beer wort by hydrating crushed malt - 74492A/42
STER 17.03.75 STERLING DRUG INC D15 J01 =CH -611-254
Removal of ash in regenerating carbon - 76981X/41
STER 06.09.77 STERLING DRUG INC B05 C03 D22 (B03 C02) =FR 2401-897
4-Benzyl or cyclohexyl or 2-furfuryl heptane-3,5 di:one derivs. - 18014B/10
STER 06.09.77 STERLING DRUG INC B05 C03 D22 (B03 C02) =J5 4052-048
4-Benzyl or cyclohexyl or 2-furfuryl heptane-3,5 di:one derivs. - 18014B/10
STER 15.09.77 STERLING DRUG INC D22 J01 (D15) =J5 4053-670
Purifying odorous waste gases, esp. from water treatment - 20017B/11
STER 10.11.77 STERLING DRUG INC D15 =GB 2008-561
Treating waste water by biological oxidn. and carbon adsorption - 35262B/19
*STER- 11.05.77 STERNDENT CORP A96 D21 (A18) *US 4155-964
Semi-finished prosthetic dental preforms prodn. - 43957B/23
STLW 01.09.77 STILLE WERNER AB D22 =FR 2401-658
Easy removal of tubular surgical splint from encased limb - 01976B/02
STOM= 08.04.76 STOMATOLOGY SCI RES INST D21 M26 #DS 2615-399
Gallium copper tin dental filler alloy - 36820Y/21
*STRA- 00.00.75 GES STRAHLEN-U UM W B03 D16 E13 *DT 2752-379
2,5-Di:hydro-2,4-di:methyl-5-oxo-furan-2-acetic acid prepn. - 42522B/23
*STRA- 00.00.75 GES STRAHLEN-U UM W B03 D16 E13 *DT 2752-380
2,5-Di:hydro-2(4)-methyl-5-oxo-furan-2-acetic acid prepn. - 42523B/23
*SUMI- 01.10.77 SUMITOMO JUKIKAI EN D15 E33 *J5 4051-989
Activating magnesia water treatment agent - 42914B/23
SUMO 22.07.75 SUMITOMO CHEMICAL KK D21 L02 M13 =J5 2014-092
Porcelain dental crown using metal substrates - 07508Y/05
SUMO 22.07.75 SUMITOMO CHEMICAL KK D21 L02 M13 =J7 9011-638
Porcelain dental crown using metal substrates - 07508Y/05
SUMO 30.12.75 SUMITOMO CHEM CO D21 M22 #CA 1054-336
Centrifugally casting metal dental restorations - 38300Y/22
*SVET= 17.01.77 SVETLOYAR BVK WKS D16 *SU -618-125
Turbo-ejector for aerating and stirring culture media - 43501B/23
SWIF 01.02.74 SWIFT & CO A97 D15 J01 =J7 9011-611
Removal of impurities from aq. effluents - 54277W/33

TAKA/ 19.12.74 TAKAMURA D D12 =J7 9011-377
Fish meat paste prods processing - 60734X/32
TAKE 15.04.72 TAKEDA CHEMICAL IND KK B02 D16 =J7 9011-400
Direct deacetylcephalosporin prodn - 67767U/45
TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =NL 7811-324
Macrocyclic antibiotic C-15003 P-4 - 40871B/22
TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =NL 7811-325
Macrocyclic antibiotic C-15003 P-3 - 40873B/22
TAKG 23.12.75 TAKI KAGAKU KK A41 D16 E16 (A35) =J7 9011-389
Acrylamide decomposition in waste water - 62779A/35
*TANA 30.09.77 TANABE PHARMACEUTICAL KK D11 *J5 4052-741
Oxidising agent used in bread mfr. - 43119B/23
TANA 30.09.77 TANABE PHARMACEUTICAL KK A97 B04 D16 (A11) =J5 4052-788
Crude urokinase purification by adsorption chromatography - 76723A/43
TATL 29.04.75 TATE & LYLE LTD D13 (D17) =CA 1055-018
Powerful natural sweetener from fruit of Thaumatococcus Daniellii - 84985X/46
*TEBB/ 30.11.77 TEBBENHOFF E C03 D13 *DT 2753-416
Portions of feedstuff for fish - 42620B/23
TECD 14.10.77 TECHNICON INSTRUMEN A89 D13 E13 J04 =SW 7806-273
Analytically determining uric acid esp. in food samples - 27851B/15
TEIJ 14.06.72 TEIJIN KK A14 D22 G03 =J7 9010-976
Pressure sensitive adhesive - 00594V/01
*TEIM- 30.06.76 TEIMEX AG D16 *CH -610-734
Washing, sorting, cleaning and cutting machine for mushrooms - 42474B/23
TENU/ 29.08.77 TENUTA A A92 D13 #FR 2401-624
Deep freezing tomatoes - 88294Y/50
TETE- 12.10.73 VEB TECHN TEXTILIEN D22 F04 =HU T016-616
Cylindrical textile product for medical and hygienic use - 24340W/15
*TIPE- 29.11.77 TIPE REVENT AB D11 *DT 2847-963
Convection type baking oven - 42644B/23
TOAG 06.06.75 TOA GOSEI CHEM IND LTD D15 =J7 9011-612
Waste water purificn. by oxidn. - 06743Y/04
TODA- 15.07.74 TODA KOGYO CORP D15 E31 M12 (E32) =DS 2460-493
Iron oxides recovery in purificn. of waste liquors - 09518X/06
TOKU 28.09.77 TOKUYAMA SODA KK D23 E17 F06 G02 =J5 4052-025
Direct aliphatic carboxylic acid esterification with ethylene - 28171B/15
TOMI/ 23.11.77 TOMIC D A96 D21 (A14 D22) =DT 2752-297
Spongy prosthesis cement for dentistry and surgery - 40959B/22
TOXN 04.10.77 TOYO BREWING KK B04 D16 =J5 4052-789
Fermentative prodn. of sarcosine oxidase - 30022B/16
*TOYJ 05.10.77 TOYO SODA KK C03 D16 (D13) *J5 4052-786
Prodn. of bacterial body useful as feed etc. - 43125B/23
TOYM 20.07.73 TOYOBO KK D16 =J7 9011-396
Alkaline protease prodn. - 56350W/34
TSUK 13.03.74 TSUKIHOSHI KK A97 D13 =CA 1054-843
Preservative compsn. for agricultural prods. - 50975W/31
TYND- 23.06 77 TYNDALE PLAINS-HUNT A25 B07 C03 D21 (A85 A88 A96 D22) =US 4156-066
Polyurethane polyether contg. lactone gps., or hydroxy and carboxy gps - 04379B/03
TYND- 23.06.77 TYNDALE PLAINS-HUNT A25 B07 C03 D21 (A85 A88 A96 D22) =US 4156-067
Polyurethane polyether contg. lactone gps., or hydroxy and carboxy gps - 04379B/03

UGIN 14.04.72 PROD CHIM UGINE KUH D15 E31 =DS 2319-244
Treatment of effluents contg chromium - 66592U/44
*UMEA= 12.07.76 UKR MEAT DAIRY RES D12 *SU -618-084
Meat treatment liquid smoking compsn. supply appts. - 43476B/23
*UMEA= 01.09.76 UKR MEAT DAIRY IND D13 *SU -618-090
Curds manufacture with improved prod. storage stability - 43482B/23
UNCO- 22.10.74 UNION COOP AGRICOLE B04 D13 (D21) =CH -610-729
Glycoproteins, glycopeptides and sialic acid (N acetyl-neuraminic -

UNIC 01.08.72 UNION CARBIDE CORP A97 D12 =DS 2338-418
Compressed accordion pleated food casing - 11325V/07

UNIC 13.10.77 UNION CARBIDE CORP C04 D15 =DK 7804-549
Combined aerobic and anaerobic sludge digestion - 29750B/16

UNIC 13.10.77 UNION CARBIDE CORP C04 D15 =NO 7803-461
Combined aerobic and anaerobic sludge digestion - 29750B/16

UNIL 31.10.72 UNILEVER LTD D13 (D23) =CA 1054-848
Edible fat compsn for ice-cream mfr - 36898V/20

UNIL 19.01.73 LEVER BROTHERS CO D25 =US 4155-871
Flowing cleaning compsn. contg. scouring bleaching agents - 55576V/31

UNIL 25.06.73 UNILEVER NV D13 E19 =J7 9011-371
Aromatising, flavouring and acidifying agents - 03741W/03

UNIL 28.12.73 UNILEVER LTD D25 E16 =CA 1054-895
Soap compsn. contg. urea-fatty acid clathrate - 46069W/28

UNIL 11.04.74 UNILEVER LTD D13 =CA 1054-433
Coated foodstuffs obtd. by steaming battered portions - 70713W/43

UNIL 29.07.74 LEVER BROTHERS CO D25 E16 #US 4155-882
Auto-oxidation of spray-dried detergents prevented - 13062W/08

UNIL 08.05.75 UNILEVER LTD D25 E12 J04 #CA 1054-311
Encapsulating oxidising chlorine-contg. particles - 67244W/40

UNIL 30.08.77 UNILEVER NV D13 =FR 2401-616
Iced confectionery esp. ice lollipops - 18000B/10

UNIL 15.09.77 UNILEVER NV D24 E17 =J5 4053-112
Soap tablets contg. at least one per cent free carboxylic acid - 20034B/11

UNIL 18.10.77 UNILEVER NV A96 D22 (A25) =DK 7804-625
Particulate absorption material with improved wettability with blood - 31891B/17

UNIL 18.10.77 UNILEVER NV A96 D22 (A25) =NO 7803-519
Particulate absorption material with improved wettability with blood - 31891B/17

UNIL 18.11.77 UNILEVER NV D25 E19 (E37) =NL 7811-311
Aq. bleaching compsn., esp. hypochlorite, coloured by pigment - 38987B/21

UNIL 14.11.78 UNILEVER NV A96 B04 C03 D13 =GB 2008-404
Immunisation of poultry to coccidiosis - 39366B/21

UNIL 14.11.78 UNILEVER LTD A97 D25 E16 F06 =GB 2008-641
Fabric softening compsn. for cotton and synthetic textiles - 39348B/21

UNIL 27.11.78 UNILEVER NV D13 =GB 2008-382
Iced confectionery esp. ice lollipops - 18000B/10

UNIO 28.05.75 UCB SA B04 C03 D16 =CH -611-336
Antifungal, antiprotozoal Lucknowmycin - 92377X/50

UNTC 17.10.77 ECODYNE CORP D15 =DK 7804-309
Clarification tank with circumferential inlet trough - 89470A/49

*UNTC 25.11.77 ECODYNE CORP D15 E37 *DT 2850-785
Salt water, e.g. sea water desalination - 42680B/23

UNTC 25.11.77 ECODYNE CORP D15 E37 =GB 2008-557
Salt water, e.g. sea water desalination - 42680B/23

UPJO 19.09.77 UPJOHN CO B04 C03 D16 (D22) =J5 4052-004
Antibiotic 354 and its salts and derivs. - 09910B/05

USDC 26.07.76 US SEC OF COMMERCE A97 D15 G02 (A11 A14 D16) =GB 1547-033
Highly water absorbent compsn. - 64819Y/36

*UVEN= 01.12.75 UKR VENDING EQUIP D11 *SU -618-082
Dough mix preparation - 43474B/23

*UYKA= 21.06.76 KABARDINO BALKAR UN D23 *SU -618-405
Steam distillation unit for essential oils - 43651B/23

UYLA- 21.06.74 UNIVERSITE LAVAL A97 D13 F01 =CH -610-731
Fibrous protein products mfr. - 03125X/02

UYMA- 20.10.77 UNIV MANCHESTER INS B04 D16 (D13 D15) =NO 7803-528
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08

*UYRO= 14.02.75 ROST UNIV C03 D16 *SU -561-313
Plant growth stimulating compsn. - 43441B/23

VARO- 04.08.77 VAROSEPITESI TUDO D15 =HU T016-560
Biological surface water purificn. - 14435B/08

VILJ/ 06.09.77 VILJANMAA A K D18 =FR 2401-997
Stretching hides in frames for drying - 04115B/03

*VIZU- 05.03.75 VIZUGYI TERVEZO VAL D15 *HU T016-561
Treatment of aq. effluents - B/23

*VOLP/ 18.08.78 VAN OLPHEN G C D16 *PT --68-443
Treatment of centrifuged grape juice with gas under pressure - B/23

*VOTE= 15.07.75 VORON TECHN INST D13 (D16) *SU -618-093
Non-alcoholic beer concentrate prodn. - 43485B/23

VROM- 06.03.78 VROMAN FOODS INC D13 =US 4155-689
Frozen foodstuffs prodn., such as desserts - 66952A/37

VTOP/ 21.11.77 VAN DEN TOP D16 =NL 7712-814
Mushroom harvesting machine - 40908B/22

VTOP/ 21.11.77 VAN DEN TOP H D16 =NL 7811-358
Mushroom harvesting machine - 40908B/22

VYRM- 12.10.77 VYRMETODER AB D16 H01 =SW 7711-500
Gas prodn. from earth formations - 33316B/17

VYSO 07.06.76 VYSOKA SKOLA STROJ TEXT D13 (D16) #CA 1054-542
Protein concentrate produced from whey - 44692Y/25

*WAKP 30.09.77 WAKO PURE CHEM IND KK D16 J04 *J5 4051-585
Enzyme activity determn. - 42855B/23

*WASE- 03.10.77 WASEDA SETTLING KK D15 *J5 4051-988
Adsorbent prodn. from water purificn. plant waste sludge - 42913B/

WELC- 13.09.77 WELCH FOODS INC B07 D13 E24 (B04 D21) =J5 40
141
Anthocyanin pigment recovery from plant materials - 24208B/13

*WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 *BE -872-449
In vitro propagation of rota-viruses - 42416B/23

*WESS 19.09.75 WESTFALIA SEPARATOR AG D14 *CH -610-733
Appts. for continuously sepg. fruit flesh and juice - 42473B/23

WILK 03.06.75 WILKINSON SWORD LTD D18 E15 (E13) =CA 1054-44
Taste modifying agents for foodstuffs and tobacco - 94284X/51

WILK/ 22.05.74 WILKE G D11 =CH -611-135
Dumpling cooked in water-permeable bag - 00320X/01

WILL- 11.04.73 WILLIAMS HOUNSLOW D18 E21 =CH -610-920
Dyeing and printing leather - 77855V/45

*WINK 24.11.77 WINKLER FA KG D11 *DT 2752-464
Automatic baking plant for Arabian flat-cake bread - 42533B/23

*WITT/ 15.07.77 WITTKOWSKI H D22 F07 *DT 2731-969
Baby diaper in form of pants - 42505B/23

WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =GB 2008-6
Wood protection against moisture-induced decay - 18077B/10

WORL- 21.11.77 WORLD POTATO CORP L D13 =GB 2008-383
Precooked potato prods. - 24002B/13

WORL- 21.11.77 WORLD POTATO CORP D13 =NL 7811-395
Precooked potato prods. - 24002B/13

YARN 29.07.75 YARDNEY CO A96 D21 =CH -610-757
Splint for immobilising damaged limb - 09316Y/06

*YASK 05.08.76 YASHIMA KOGYO KK D12 *US 4155-281
Fish head and gut removal - 43782B/23

YEDA 08.02.74 YEDA RES & DEV CO LTD A13 B04 D15 (A91) =CA 105
034
Polymeric org. reagents, pref. chelating agents - 55943W/34

*YOSH/ 30.09.77 YOSHIDA K B04 D16 *J5 4052-794
Prepn. of polysaccharide(s) for immune serum - 43128B/23

YOUN/ 14.08.74 YOUNG M M A97 B04 D16 =CA 1054-541
Polymer addition to fermentation broths - 28135X/15

*YUAS 03.10.77 YUASA BATTERY CO KK D15 J01 *J5 4051-981
Filtration of waste water - 42907B/23

*ZEIS/ 23.11.77 ZEISER M D21 M22 *DT 2752-332
Melting lost wax patterns out of casting crucibles - 42519B/23

P AD
446-174 Q00
791-437 Q01
562-861 Q01
310-060 Q01
029-318 Q01
517-316 B23

-R DEM
914-102 R13
018-603 R41
278-942 T25
-138-890 U22
792-584 B23

-R DE
-842-869 R22+
3560-136 S05
3904-690 W38+
1569-817 X33+
1619-615 X44+
4018-556 Y17+
4155-934 B23+

7-S DFJ
2051-200 S19
2066-599 S44
7006-971 T06
3652-407 T17
1322-750 U28
-929-713 U30
2051-200 B23

21-T D
2136-479 T06
-969-022 W26
2136-479 B23

60-T AD
7116-226 T24
-775-946 T24
7011-357 T24
2159-172 T25
2116-139 T44
7107-985 U17
3810-834 V21
1369-429 V41
-436-483 W18
--38-198 W21
-990-871 X26
8020-475 A29
2159-172 B23

759-T D
7014-367 T39+
-951-567 V32+
9011-380 B23+

939-U D
T 2250-119 U19
L 7114-380 U19
E 7208-923 W31
S 2250-119 B23

183-U AD
T 2258-535 U25+
L 7215-766 U25
R 2162-112 U39
4 8060-200 U49
B 1351-918 V18+
S 3843-567 V44
4 8096-686 V23
A -981-396 X04+
4 8067-400 V01
7 9010-999 B23
7 9011-000 B23

769-U D
E -793-671 U28
T 2301-492 U31
L 7300-231 U31
A 7300-121 U43
R 2167-986 U45
GB 1346-756 V07
US 3875-308 W15
CA -971-820 W33
J7 5025-530 W38
AR -203-452 X46
CH -582-486 Y02
SU -559-622 A37
DS 2301-492 B23

8403-U DH
BE -795-310 U34
NL 7302-397 U37
DT 2306-845 U37
FR 2172-796 U50
ZA 7301-035 U52

J4 8098-650 V08
DL -103-014 V13
US 3900-421 W35
GB 1426-646 X10
CH -572-095 X12
IL --41-559 X13
CS 7301-257 X43
CA -998-952 X46
J7 7016-658 Y22
RU --62-867 A10
SU -578-853 A38
DS 2306-845 B23

63408-U BD
BE -799-122 U42
DT 2319-322 U48
ZA 7302-340 V06
FR 2183-823 V09
DL -103-924 V15
DS 2319-322 V22
GB 1367-273 V38
US 3871-965 W13
CH -561-277 W21
HU T010-237 W34
IL --41-979 W37
SU -465-795 X11
CA -986-864 X17
NL -150-509 X38
RU --63-438 A37
J4 9054-589 B23
J7 9011-399 B23

64425-U BDE
J4 8010-287 U43
J7 9011-398 B23

66592-U DE
NL 7305-146 U44
BE -797-019 U44
DT 2319-244 U47
FR 2179-650 V03
J4 9020-951 V20
US 3856-917 W01
GB 1395-286 W21
CH -566-941 W43
J7 7005-186 Y10
NL -152-518 Y15
DS 2319-244 B23

67767-U BD
DT 2318-650 U45
NL 7305-166 U45
FR 2180-812 V04
J4 9000-491 V17
US 3926-729 W52
CH -570-460 X07
GB 1433-528 X18
J7 9011-400 B23

00594-V ADG
NL 7308-139 V01+
DT 2330-328 V03+
J4 9032-933 V43
J4 9018-924 V43
GB 1423-633 X06+
US 3971-766 X32+
US 3983-297 X41+
CA 1012-683 Y27+
NL -153-594 Y28+
DS 2330-328 B19+
J7 9010-976 B23

11325-V AD
BE -803-079 V07
NL 7310-592 V08
DT 2338-418 V09
FR 2194-549 V18
US 3886-979 W24
GB 1444-442 X31
CH -581-954 X52
CA 1005-683 Y09
US 4026-985 Y23
OE 7306-717 Y27
J4 9052-088 B02
J7 8045-756 B02
DS 2338-418 B23

13841-V D
DT 2336-182 V08
J4 9029-301 V48
US 3951-877 X18
J7 6047-164 Y02
DS 2336-182 B23

14877-V BDE
NL 7310-789 V08
DT 2337-765 V08
FR 2194-377 V18

J4 9050-165 V29
US 3851-073 V50
IL --42-862 W52
GB 1432-452 X16
CH -575-215 X25
DS 2337-765 B23

33005-V BCD
DT 2351-344 V18
BE -806-029 V18
NL 7314-099 V18
FR 2202-680 V29
ZA 7305-897 V35
J4 9075-796 V39
DL -111-403 W19
GB 1439-668 X25
CH -584-287 Y09
IL --43-295 Y16
CS 7307-048 A51
SU -618-053 B23

36898-V D
DT 2354-608 V20
BE -806-855 V20
NL 7314-932 V20
FR 2204-361 V35
J5 0005-407 W12
ZA 7308-386 X17
NL -156-900 A26
CA 1054-848 B23

40237-V DE
DT 2353-147 V22
NL 7314-607 V22
FR 2206-304 V37
J4 9080-047 V40
GB 1392-020 W17
US 3894-088 W29
CH -572-457 X15
CH -576-787 X29
J5 4052-737 B23

49346-V DE
J4 9030-307 V27
J7 9011-285 B23

54692-V BCD
NL 7400-282 V30+
DT 2400-931 V31+
BE -809-578 V32+
FR 2213-053 V44+
J4 9095-956 V46+
NO 7404-259 W04+
ZA 7400-158 W18
US 3901-928 W36+
J5 0100-045 W40+
J5 0100-216 W40+
J5 1110-554 X46+
GB 1463-985 Y06+
CH -603-571 A37+
CA 1055-011 B23+

55576-V D
DT 2402-224 V31
NL 7400-766 V32
BE -809-956 V33
SF 7400-118 V45
FR 2214-749 V46
J4 9106-509 V50
PT --61-216 W28
ZA 7400-270 W37
GB 1418-672 W52
OE 7400-413 X20
CA 1011-213 Y24
CH -593-332 A01
US 4154-694 B22
US 4155-871 B23

58426-V BCDE
BE -810-303 V33+
NL 7401-134 V33+
DT 2319-079 V45
J4 9101-366 V48+
FR 2216-253 V48+
GB 1398-375 W25+
US 3954-889 X20+
J7 9011-305 B23+

63093-V BD
BE -813-619 V36+
NL 7405-126 V44+
DT 2418-088 V45+
SW 7404-821 V50+
J4 9126-692 W12+
FR 2235-931 W16+
PT --61-767 W20+
J5 0096-588 W46
J5 0096-587 W46+

J5 0096-585 W46+
J5 0083-390 W50
J5 0083-389 W50
J5 0083-388 W51
J5 0083-387 W51
FR 2272-096 X11+
FR 2272-097 X11+
FR 2272-098 X11+
US 3998-816 Y01+
GB 1464-793 Y07+
IL --44-578 Y12+
J5 0096-586 Y17
DS 2418-088 Y47+
J7 7046-240 Y50
J7 7046-239 Y50
CA 1027-553 A12+
CH -611-304 B23+

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OE 7706-908 B04
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HU T016-610 B23+

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CA 1054-614 B23+

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16835-X CD
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ZA 7505-325 X37+
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CH -610-726 B23+

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GB 1488-765 Y41+
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US 4095-038 A32+
US 4156-100 B23+

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11-638 B23

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508-166 Y09
318-224 Y17
547-275 B23

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38300-Y DM
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J5 4002-398 B07
FR 2393-848 B11+
J5 4052-791 B23

01945-B BCDE
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DT 2837-264 B10
NL 7808-802 B11
SW 7808-950 B14
NO 7802-866 B16
J5 4036-288 B17
FR 2401-165 B22
SF 7802-586 B22
PT --68-434 B23

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GB 2003-042 B10
NL 7808-615 B11

DT 2836-712 B11
SW 7809-034 B15
J5 4045-678 B20
FR 2401-682 B23

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GB 2003-376 B11
DT 2837-409 B12
SW 7809-107 B15
DK 7803-815 B16
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J5 4047-724 B21
SF 7802-639 B22
FR 2401-622 B23

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GB 2003-391 B11
NL 7808-754 B12
SW 7709-831 B15
DK 7803-814 B16
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SF 7802-646 B22
FR 2401-658 B23

01981-B ADE
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DT 2838-530 B23

02028-B BD
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FR 2393-849 B11
J5 4046-892 B21
DS 2726-313 B23

04084-B ADE
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US 4133-900 B04
GB 2003-016 B10
NL 7808-884 B11
DT 2837-684 B12
SW 7809-106 B15
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SF 7802-640 B22
FR 2401-623 B23

04115-B D
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NL 7809-070 B12
DT 2838-018 B12
DK 7803-800 B16
SW 7809-175 B16
SF 7702-643 B22
FR 2401-997 B22

04379-B ABCD
DT 2827-450 B03+
J5 4010-398 B09+
US 4156-066 B23
US 4156-067 B23+

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DS 2742-411 B04
BE -870-659 B05
NL 7809-314 B14
GB 2004-463 B14
NO 7803-111 B19
SW 7809-634 B19
DK 7804-144 B20
J5 4052-735 B23

08018-B ADE
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NL 7808-127 B08
NO 7802-627 B12
GB 2001-993 B07
DT 2833-742 B13+
SW 7808-308 B16+
SF 7802-372 B16+
J5 4041-383 B19+
FR 2399-435 B19+
PT --68-373 B23

08406-B DE
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US 4155-855 B23+

09910-B BCD
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BE -870-597 B12
GB 2004-271 B13
NL 7809-302 B14
DT 2835-295 B17
J5 4052-004 B23

10222-B D
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NL 7807-731 B06+
BR 7804-635 B23+

12217-B D
DT 2735-550 B07
EP -----773 B07
DK 7803-156 B12
NO 7802-669 B13
PT --68-390 B23

14189-B DE
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DT 2836-276 B10
FR 2400-358 B21
FR 2401-900 B23

14223-B BD
BE -871-171 B08+
GB 2006-181 B18+
NL 7810-531 B19+
DT 2845-552 B19+
NO 7803-528 B23+

14435-B D
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SW 7808-373 B12
FR 2399-384 B19
HU T016-560 B23

15961-B D
WP 7900-076 B08
SW 7802-696 B23

16009-B D
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WP 7900-121 B13
FR 2401-617 B23

16027-B D
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DT 2844-896 B17+
NL 7810-395 B18+
GB 2007-960 B22+
NO 7803-516 B23+

16070-B DE
CH -608-777 B09
CH -611-159 B23+

17999-B ADE
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GB 2003-173 B10+
NL 7808-788 B11+
DT 2836-567 B11+
J5 4046-207 B21+
FR 2401-986 B23+

18000-B D
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NL 7808-870 B11
DT 2837-848 B12
SW 7809-105 B15
DK 7803-813 B16
FR 2401-616 B23
GB 2008-382 B23+

18014-B BCD
BE -870-103 B10
NL 7808-946 B12
DT 2838-276 B12
GB 2004-542 B14
DK 7803-658 B16
SW 7809-350 B16
US 4153-719 B21
FR 2401-897 B23
J5 4052-048 B23

18077-B CDEF
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DT 2822-461 B21+
NL 7810-841 B22+
GB 2008-640 B23+

18235-B D
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SW 7808-553 B14
FR 2401-702 B23

18322-B DE
DT 2834-999 B10
SW 7709-374 B14
FR 2400-552 B21
SF 7802-477 B22
J5 4052-003 B23

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NL 7709-338 B11
FR 2400-851 B22
PT --68-454 B23

18333-B DE
DT 2835-652 B10
GB 2003-033 B10
SW 7709-348 B14
FR 2400-906 B22+
J5 4052-892 B23

18396-B BCD
EP -----947 B10+
DT 2738-717 B11
DK 7803-776 B15+
NO 7802-713 B16+
J5 4046-786 B21
SF 7802-607 B22+
PT --68-474 B23+

18418-B AD
EP ---1-004 B10+
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US 4146-495 B15
DK 7803-690 B15+
J5 4052-196 B23+

18536-B D
GB 2003-129 B10+
J5 4052-862 B23

18542-B D
GB 2003-158 B10
DT 2835-220 B11
J5 4049-301 B22
FR 2401-973 B23

19939-B BCDE
US 4141-907 B10
BE -871-274 B17
EP ---1-709 B18
GB 2006-774 B19
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GB 2004-198 B13
NL 7809-138 B14
DT 2839-173 B14
J5 4053-670 B23

20034-B DE
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NL 7809-353 B14
DT 2839-862 B14
GB 2004-564 B14+
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NO 7803-110 B18
DK 7804-039 B18
BR 7806-027 B20
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20194-B D
DT 2739-335 B11
GB 2005-154 B16
FR 2401-877 B23

20218-B D
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GB 2003-498 B11
NL 7808-959 B12
SW 7809-178 B15
DK 7803-883 B16
NO 7802-789 B17
J5 4046-801 B21
SF 7802-689 B22
FR 2401-998 B23

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US 4147-807 B15
FR 2401-996 B23

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DT 2835-876 B11
GB 2004-556 B14
J5 4035-185 B17
FR 2401-188 B22
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20286-B D
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NL 7808-447 B11
GB 2003-390 B11
SW 7709-792 B17
FR 2401-657 B23

20291-B DJ
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BR 7805-726 B19+
FR 2402-171 B23+

20310-B D
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NL 7709-766 B12
FR 2401-614 B23

20411-B D
GB 2003-460 B11
DT 2837-125 B12
SW 7808-917 B15
NO 7802-952 B16
BR 7805-727 B19
FR 2401-878 B23

21212-B DJ
NL 7808-974 B11
GB 2003-402 B11
DT 2836-113 B12
SW 7709-810 B15
FR 2401-704 B23

22053-B AD
BE -870-521 B12
NL 7809-495 B14
DT 2839-958 B14
GB 2007-078 B20+
J5 4052-800 B23

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NL 7811-114 B23

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DS 2751-547 B12+
NL 7810-647 B23
GB 2008-615 B23

22304-B D
DT 2837-294 B12+
FR 2401-615 B23

22325-B BD
DT 2838-252 B12+
NL 7808-778 B12+
DK 7803-890 B16+
GB 2005-662 B17+
FR 2401-993 B23+

22428-B ACD
EP ---1-190 B12
FR 2401-951 B23

22499-B BCD
GB 2003-727 B12
NL 7809-386 B13
DT 2839-730 B13
J5 4052-731 B23

23989-B D
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DT 2850-042 B22+
NL 7811-379 B23+

24002-B D
BE -872-136 B13
DT 2850-401 B22
NL 7811-395 B23
GB 2008-383 B23

24010-B BDJ
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DT 2850-503 B22+
GB 2008-248 B22+
NL 7811-478 B23+

24015-B D
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DT 2850-495 B23

24173-B DE
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GB 2005-139 B16
J5 4050-695 B22
FR 2401-988 B23

24176-B ACD
DT 2838-308 B13+
SW 7809-223 B15+
GB 2005-537 B17+
J5 4046-824 B21+
FR 2401-619 B23+

24191-B ABDJ
DT 2839-170 B13
US 4111-838 B13
GB 2006-640 B19
J5 4051-596 B23

24208-B BDE
DT 2839-502 B13
NL 7809-319 B13
GB 2006-802 B19
J5 4053-141 B23

24225-B BDE
DT 2839-814 B13+
NL 7809-359 B14+
GB 2005-258 B16+
J5 4052-065 B23

25998-B D
BE -872-434 B14
DT 2850-635 B23

26433-B BCDE
EP ---1-265 B14
DK 7804-051 B18
J5 4052-092 B23

26470-B AD
EP ---1-345 B14
DK 7804-055 B18
NO 7703-215 B19
J5 4053-676 B23

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DT 2844-233 B17
NL 7807-960 B18
SW 7806-273 B23

27884-B D
BE -871-112 B15
DT 2843-899 B17
NL 7810-185 B18
DK 7804-501 B22
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SW 7810-548 B23

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GB 2005-658 B17
J5 4052-797 B23

28171-B DEFG
DT 2842-265 B15
GB 2005-679 B17
J5 4052-025 B23

28172-B D
DT 2842-266 B15
GB 2005-187 B16
NL 7809-952 B17
J5 4052-749 B23

29695-B ADG
US 4147-831 B15
BR 7805-619 B21
J5 4050-045 B22
FR 2401-662 B23

29750-B CD
BE -871-214 B16+
DT 2844-498 B17+
GB 2006-743 B19+
DK 7804-549 B23+
NO 7803-461 B23+

29946-B BD
DT 2745-541 B16
NL 7711-114 B18+
DK 7704-483 B22+
NO 7703-432 B22+
NO 7801-464 B22+
SW 7711-320 B23+

30019-B ADF
DT 2842-855 B16
GB 2007-245 B20
J5 4052-793 B23

30022-B BD
DT 2842-940 B16
NL 7809-943 B16
GB 2005-689 B17
DK 7804-369 B22
SW 7810-355 B22
J5 4052-789 B23

31575-B BDE
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EP ---1-715 B18
GB 2008-574 B23

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GB 2005-564 B17
NL 7810-133 B18
SW 7810-430 B23

31817-B CD
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NL 7809-065 B18
GB 2007-075 B20
DK 7804-538 B23

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GB 2008-081 B22+
J5 4053-675 B23

31891-B AD
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BE -871-300 B17+
NL 7810-349 B18+
EP ---1-706 B18+
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NO 7803-519 B23+
DK 7804-625 B23+

31907-B D
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NL 7810-369 B18
GB 2006-081 B18
DK 7804-610 B23

33316-B DH
WP 7900-201 B17+
SW 7711-500 B23

33640-B D
DT 2845-208 B18
GB 2005-984 B18
NO 7803-533 B23

35262-B D
BE -871-813 B19
DT 2848-710 B21
NL 7811-092 B22
GB 2008-561 B23

35619-B D
DT 2842-011 B19
GB 2008-379 B23

36463-B DE
NL 7810-355 B19
GB 2008-573 B23+

37155-B AD
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NL 7811-298 B22
GB 2008-433 B23

37168-B DH
BE -871-955 B20
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NL 7811-234 B22
GB 2008-600 B23

37528-B BCDE
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DK 7804-520 B23

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DT 2849-393 B22
GB 2008-116 B22
NL 7811-353 B23

38987-B DE
BE -872-104 B21+
DT 2849-225 B22+
NL 7811-311 B23+

38989-B AD
BE -872-116 B21
DT 2850-282 B22
NL 7811-479 B23

39348-B ADEF
DT 2848-892 B21
GB 2008-641 B23+

39366-B ABCD
DT 2849-226 B21
NL 7811-230 B22
GB 2008-404 B23+

39369-B DE
DT 2849-332 B21
NL 7811-290 B22
GB 2008-577 B23

39993-B ADHJ
NL 7811-021 B21
GB 2008-423 B23+

40773-B CD
DT 2751-768 B22
NL 7811-253 B23
GB 2008-381 B23

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NL 7810-736 B23
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40837-B ABDE
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GB 2008-571 B23

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GB 2008-513 B23

40871-B BCD
DT 2849-666 B22
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40873-B BCD
DT 2849-696 B22
NL 7811-325 B23

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GB 2008-406 B23

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NL 7712-814 B23
NL 7811-358 B23

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EP ---2-064 B22
DT 2752-297 B23

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BE -872-385 B23

42412-B DEK
BE -872-416 B23+

42416-B BD
BE -872-449 B23+

42420-B AD
BE -872-461 B23

42426-B DJ
BE -873-868 B23

42427-B DJ
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42430-B CD
BE -873-878 B23

42444-B D
BE -873-963 B23

42457-B DE
CA 1054-434 B23

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CA 1054-438 B23

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CA 1054-728 B23

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42474-B
CH -610-73

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42493-B D
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42497-B D
DS 2818-147

42498-B D
DS 2823-865

42501-B D
DS 2839-322

42502-B DJ
DS 2847-314

42505-B DF
DT 2731-969

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DT 2752-190

42512-B DE
DT 2752-253

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DT 2752-296

42519-B DM
DT 2752-332

42522-B BDE
DT 2752-379

42523-B BDE
DT 2752-380

42533-B D
DT 2752-464

42537-B DK
DT 2752-481

42544-B DJ
DT 2752-538

42546-B BCD
DT 2752-553

42551-B DJ
DT 2752-621

42557-B DJ
DT 2752-748

42560-B AD
DT 2752-778

42564-B ADF
DT 2752-821
GB 2008-486

42569-B D
DT 2752-852

42574-B D
DT 2752-865

42591-B DE
DT 2752-972

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DT 2753-263

42612-B BCD
DT 2753-309

42613-B D
DT 2753-311

42620-B CD
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42631-B D
DT 2803-773

-B DM
821-572 B23+

-B DJ
823-253 B23

-B D
847-963 B23

-B ADE
2850-256 B23

-B D
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-B DE
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8-B D
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-872-443 B23

0-B DHM
2850-925 B23

93-B D
2850-989 B23

97-B DE
2851-024 B23

99-B BDE
2851-055 B23

00-B BDE
2851-082 B23

722-B D
2851-627 B23+

732-B DJ
2401-684 B23

733-B DJ
2401-685 B23

736-B DJ
2401-694 B23

755-B D
2401-994 B23

762-B D
2402-087 B23

776-B D
B 1546-992 B23

784-B D
B 1547-177 B23

2793-B DJ
B 2008-426 B23+

2805-B D
B 2008-560 B23

2821-B ABDJ
B 2008-747 B23+

2823-B ADEG
5 4037-099 B23

2827-B DE
5 4039-371 B23

2829-B BD
5 4041-323 B23

2855-B DJ
J5 4051-585 B23

2856-B DJ
J5 4051-595 B23

2896-B DG
J5 4051-968 B23

42900-B DE
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42907-B DJ
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42908-B DJ
J5 4051-982 B23

42909-B D
J5 4051-984 B23

42913-B D
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42914-B DE
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42921-B BD
J5 4052-001 B23

42926-B DE
J5 4052-021 B23

42933-B BD
J5 4052-033 B23

43052-B DM
J5 4052-616 B23

43080-B DJ
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43087-B ADJ
J5 4052-682 B23

43110-B ACDF
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43115-B DE
J5 4052-733 B23

43116-B DE
J5 4052-734 B23

43117-B AD
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43118-B DE
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43119-B D
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43120-B D
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43122-B D
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43123-B D
J5 4052-755 B23

43124-B AD
J5 4052-756 B23

43125-B CD
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43126-B D
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43127-B BD
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43128-B BD
J5 4052-794 B23

43129-B BD
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43130-B BD
J5 4052-796 B23

43131-B DE
J5 4052-798 B23

43132-B D
J5 4052-863 B23

43133-B DF
J5 4052-864 B23

43134-B DJ
J5 4052-865 B23

43160-B D
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43161-B D
J5 4053-111 B23

43282-B D
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43325-B DEJ
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43326-B ADJ
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43372-B D
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J5 0052-249 B23

43373-B D
J7 9011-375 B23
J5 2034-953 B23

43374-B D
J7 9011-376 B23
J5 1144-756 B23

43379-B DJ
J7 9011-616 B23
J5 2113-548 B23

43381-B AD
J7 9011-640 B23

43385-B DE
NL 7712-745 B23

43386-B DE
NL 7712-746 B23

43402-B CD
SU -302-914 B23

43417-B BCD
SU -405-235 B23

43421-B DEK
SU -431-122 B23

43433-B BCD
SU -508-151 B23

43435-B BCD
SU -517-198 B23

43441-B CD
SU -561-313 B23

43447-B D
SU -599-780 B23

43460-B CD
SU -614-646 B23

43471-B D
SU -618-077 B23

43472-B D
SU -618-078 B23

43473-B CD
SU -618-080 B23

43474-B D
SU -618-082 B23

43475-B D
SU -618-083 B23

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43490-B D
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43491-B BD
SU -618-107 B23

43498-B D
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43501-B D
SU -618-125 B23

43511-B D
SU -618-138 B23

43572-B CDEF
SU -618-282 B23

43650-B BD
SU -618-404 B23

43651-B D
SU -618-405 B23

43653-B D
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43656-B D
SU -618-410 B23

43657-B BCD
SU -618-411 B23

43658-B D
SU -618-412 B23

43659-B D
SU -618-413 B23

43660-B D
SU -618-414 B23

43661-B D
SU -618-415 B23+

43782-B D
US 4155-281 B23+

43784-B D
US 4155-290 B23

43785-B D
US 4155-293 B23+

43791-B D
US 4155-331 B23

43828-B D
US 4155-656 B23+

43870-B D
US 4155-770 B23

43872-B D
US 4155-774 B23

43889-B DE
US 4155-811 B23+

43890-B BDE
US 4155-812 B23

43906-B BDJ
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43909-B DJ
US 4155-853 B23

43917-B AD
US 4155-868 B23+

43918-B DE
US 4155-869 B23

43919-B D
US 4155-870 B23+

43925-B ADF
US 4155-885 B23

43926-B ADG
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43940-B DE
US 4155-916 B23

43941-B D
US 4155-924 B23

43957-B AD
US 4155-964 B23

43964-B DE
US 4155-975 B23+

43971-B AD
US 4155-994 B23

43980-B D
US 4156-021 B23+

43981-B D
US 4156-023 B23

43982-B D
US 4156-024 B23+

43983-B D
US 4156-026 B23

43984-B D
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43985-B DE
US 4156-029 B23+

43986-B D
US 4156-030 B23

44012-B BCD
US 4156-179 B23

44015-B D
WP 7900-282 B23+

44023-B BD
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2
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Section D:

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DETERGENTS

ABSTRACTS

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

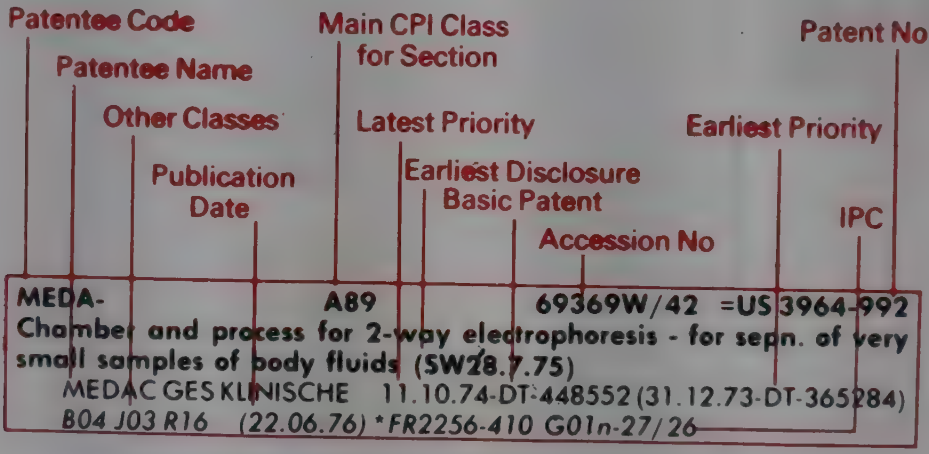
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
A+	Polymer Applns.	G	Printing, Coating, Photographic Chemistry
AE	Polymer & General Chemistry	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Main CPI Class for Section
Patent No
Patentee Name
Other Classes
Latest Priority
Earliest Priority
Publication Date
Earliest Disclosure
Basic Patent
IPC
Accession No

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

P ★ D11 44099B/24 ★BE -874-204
l mixer with rotary and planetary action agitator - partic. for gh to make loaf with increased baked vol. to wt. ratio
AKER PERKINS LTD 15.02.78-GB-006070 (15.02.78-GB-006039)
(29.05.79) A21c

e bowl has a vertical, cylindrical upper section surm-ting a coaxial, hemispherical base.

The mixing element can be driven to rotate simply out a vertical axis coinciding with the axis of the bowl. e elements can also be driven to rotate simultaneously out a second axis inclined to and intersetting the first, s providing the element with a planetary motion.

The mixing element is shaped to follow closely the mispherical surface of the bowl during rotation. For anetary motion mixing, the element is pref. rotated in posite directions about the two intersecting axes.
.2.79 as 874204 (36pp448)

R/ ★ D11 44310B/24 ★DT 2852-525
ading carriage and shelf rack for baking oven - produces oven ttom bread with minimal energy and labour
LEBRUN C 05.12.77-FR-036545
(07.06.79) A21b-03/15

n arrangement for loading a baking oven includes at least e rack. This has shelves formed by full plates capable storing heat, and it remains inside the over chamber. loading and unloading trolley consists of a frame with heels and a number of flat supporting plates placed one bove the other so that they can be inserted between the helves of the rack. Each supporting plate carries an ndless runner of the type usual in bakery plants, on hich the portions of dough are placed for feeding on to the ven shelves.

This combines the advantages of baking trays put onto helves in the oven chamber and loading racks wheeled nto and withdrawn from the oven. There is no loss of heat nergy by the cooling down of the rack shelves outside the ven during changeover, labour is economised and maintenance costs are reduced. 5.12.78 as 852525 (15pp1045)

MORG ★ D11 45187B/24 ★J7 9012-548
Foamed cookie prepn. - by partly freezing dispersion contg. ingredients, acid-treated gelatin and carrageen while agitating, then completely freezing, and thawing
MORINAGA MILK KK 25.05.71-JA-035160
(23.05.79) A23g-09/20

Starting material for cookies and acid-treated gelatin are dispersed and carrageen is added to the dispersion. The product is frozen with agitation to give a partially frozen foamed material then this completely frozen. The product gives foamed cookies upon thawing. 25.5.71 as 035160 A23g 9/20 (23.5.79)MORINAGA MILK KK (3pp22) (J4 8001167)

KIFO= ★ D11 45216B/24 ★SU -619-162
Mesh hearth-conveyor for baking oven - has interwoven wire threaded with transverse rod like elements, with eyes to connect with traction chains
KIEV FOOD IND INST 03.12.76-SU-426435
(30.06.78) A21b-01/42

Mesh-hearth for a bread-baking oven, which also doubles as a conveyor for the loaves, is made up of spirally-wound wires, through the turns of which elements with eyes on their ends are threaded transversely. Connectors through the eyes fasten the mesh conveyor to the traction chains on each side, the chain links being fitted with strips having holes for this purpose. Operational reliability of the moving hearth is increased by fitting hooks between the eyes and the strips, with their ends bent round until they come together in a closed ring formation. These hooks can turn in both the horizontal and vertical planes. The transverse elements are made of two rods fastened together longitudinally, with the eyes actually formed on the ends of each of the rods.
Mikhelev, A.A., Sigal, M.N., Shulgin, I.M. et al.
Bul. 30/15.8.78. 3.12.76 as 426435 (3pp29)

GRAI= ★ D11 45233B/24 ★SU -619-203
Macaroni flour prodn. from wheat - by drying and heating grain to certain humidity and temp. prior to humidification
GRAIN PRODUCT PROCE 21.03.77-SU-464849
P41 (03.07.78) B02c-09/04

The macaroni flour can be produced from wheat by preparing the grain for grinding, removal of impurities, humidification, subsequent moistening and three stage grinding. The grain is ground using roller crushers and then the ground product is sorted into separate streams. To increase the highest quality and first quality product quality and its quantity, the grain prior to humidification is dried to 11.5-12.0% moisture content and is heated to 15-20°C.
Bratukhin, A.M., Danilin, A.S., Zotikov, V.M. et al.
Bul. 30/15.8.78. 21.3.77 as 464849 (2pp110)

D12 : MEAT; FISH PROCESSING

GEFO- ★ D12 44244B/24 ★DT 2849-129
Texturised oil seed protein meat substitute - is prepd. by concentrating aq. fat-contg. oil seed dispersion, coagulating and thermo-fixing
GEN FOODS CORP 01.12.77-US-856468
(D23) (07.06.79) A23j-03 C07g-07

Texturised oil seed protein prodn. comprises concentrating an aq. dispersion of fat-contg. oil seeds, esp. full fat soyabeans, under conditions such that a noticeable protein denaturation is prevented, but sufficient water is removed to obtain a viscous dispersion having solids concn. > 30 (> 40) esp. 45-50 wt.%. The dispersion obtd. is pressed e.g. extruded, through a tool into an aq. bath. The protein [illegible] heated to harden and complete the coagulation of the protein present.

The prods. can be used as fibres or films, as meat substitute in traditional or new dishes. The oil need not be extd. from oil seed material before treatment. Carbohydrates need not be removed. 13.11.78 as 849129 (17pp 200)

LINK- D12 30193A/16 =GB 1547-339
Sausage casings peeling apparatus - includes guide, transporter, knife assembly and perforated wheel removing cut casings
LINKER MACH INC 10.12.76-US-749492
*(13.06.79) *ZA7702-544 A22c-11*

Peeling of casings from a string of sausages comprises advancing them past a slitting knife which produces a longitudinal cut. A perforated hollow member connected to a suction means is arranged downstream of the knife and removes the detached skin. A releasable guide is provided along the peeling path to guide the 'peeled' sausages out of the machine.

The appts. is of simple construction and thus easily cleaned. A wide range of sausage sizes can be treated. 27.10.77 as 044742 (7pp397)

INTT ★ D12 44536B/24 ★GB 2009-471

Optimising value of meat cuts produced from animal carcass - by making physical and quality measurements when animal is slaughtered which are fed to computer

ITT INDUSTRIES INC 05.12.77-US-857324

R27 (13.06.79) A22c-18 G06f-15/20

The value of cuts of meat produced from an animal carcass is optimised by making physical measurements of each carcass when the animals are slaughtered and feeding the measurements to a computer programmed to produce cutting in-structions for each carcass in accordance with data representing market conditions.

The market indicators are determined along with prodn. information when the carcasses are in a chilling dept. Carcass identification indicators are used to identify each carcass promptly after the slaughter.

Optimisation of cutting schedule in hog slaughtering plant. Relative profit or loss can be determined with respect to each carcass to tailor the buying procedures so as to achieve max. profit. Each carcass of a plurality to be processed in a time period is identified immediately following the slaughter of the animal and after it has been dehaired, singed and polished. The physical data is obtained at the kill dept. rather than the cutting dept. It is possible to program demand based on sales with respect to each cut already made or needed during a cutting process of the previous day. 30.11.78 as 046606 (28pp1044)

KIBU- ★ D12 44936B/24 ★J5 4055-753

Preventing enzymic decomposition of minced fish and crustacea meat - by collecting the meat in aq. alkaline salt soln. of specified pH and temp.

KIBUN KK 07.10.77-JA-120125

(04.05.79) A23l-01/32

Method comprises collecting the meat of fish and crustacea in aq. alkaline salt soln. of pH 7.0-8.5 at $<10°C$.

Pref. the head and internal organs of the fish are first removed and the obtd. fillet conveyed to a press-meat-collecting machine. The alkaline salt is sodium bicarbonate, sodium carbonate, disodium hydrogen phosphate, etc. and sodium hydroxide and potassium hydroxide may be used for adjusting pH. These salts are previously dissolved in water to 0.01-3.5% concn. 7.10.77 as 120125 (6pp5)

KIRS/ ★ D12 45215B/24 ★SU -6

Nutrient medium for fattening spiders - comprises water anc
peptone, used to stimulated web prodn. for antibiotics mfr.

KIRSANOV G P 18.11.74-SU-076327

B04 C03 F01 P14 (30.06.78) A01k-67

Nutrient medium for fattening spiders, the webs of w
are used for producing medicinal substances, compri
(in wt.%) 85-95% water and 5-15% meat peptone. Th
medium stimulates web prodn. in the spiders.

It is fed esp. to Tegenaria domestica (cl.) and Teg
ia derhaniil (scep.), at e.g. 26°C.
Kirsanov, G.P. Bul. 30/15.8.78. 18.11.74 as 07632
(2pp314)

MOGI= ★ D12 45217B/24 ★SU -61

Tubular sausage casing mfg. die - has cylindrical body and
forming gap through which viscose flows to meet coagulating s

MOGILEV KHIMVOLOKNO 15.11.76-SU-420849

A97 (A32) (30.06.78) A22c-13 B29d-01/02

Die for forming artificial seamless, tubular hydrated-
cellulose casings for the prodn. of sausages, the body
which contains an insert so as to form a channel throu
which the extruded soln. can pass. Construction is si
-fied by making the body as a cylindrical vessel, the b
tom of which is inverted upwards and made with an op
placed in the centre. The edge of the vessel has a fla
by which it is connected to the insert and the upper en
the latter forms a gap with the bottom of the vessel to
low the soln. to get into the opening. A claibrating ri
installed at the point where the flange and the insert co
nect.
Zernov, P.N., Alesov, V.S., Lyalkov, N.D. et al. B
30/15.8.78. 15.11.76 as 420849 (2pp29)

LENL ★ D12 45218B/24 ★SU -619

Colouring compsn. for white sausage skin - additionally cont
citric acid salt and water, to improve compsn. quality

LENINGRAD FORESTRY ACAD (LUGA= POUL=) 16.03.77
463769

(30.06.78) A22c-13

Compsn. for colouring white sausage skin contains in
%) smoke prepn. 'Vakhtol' 25-35, citric acid salt 0.1-
and balance water. The presence of citric acid salt an
water improves the quality of the compsn.

The compsn. is prepd. as follows. The smoke prep
dissolved in water in ratio 1:2-1:3 (iodine number shou
be 0.7-0.8.). Tri-substd. potassium citrate is added
amt. 1.5 kg. per 1000 l. of 'Vakhtol' prepn. soln. The
semi-dried sausage skin is sprayed with the obtd. soln.
7 times depending on the diameter of the skin.
Liverovskii, A.A., Shmulevskaya, E.I., Vzdornikova,
R.M. et al. Bul. 30/15.8.78. 16.3.77 as 463769 (1pp9

D13: OTHER FOODSTUFFS

HENK ★ D13 44050B/24 ★BE -872-624

Animal feedstuffs giving high feed utilisation and wt. gain - contg. Nitrovin, Carbadox or Olaquindox and proteolytic enzyme

HENKEL KG AUF AKTIEN 20.01.78-DT-802397 (10.12.77-DT-755126)

C03 (08.06.79) A23k

Animal feedstuff mixts., based on carbohydrate proteins and fats, contain (A) 5-350 ppm of a growth accelerator selected from nitrovin, carbadox and olaquindox and (B) proteolytic enzymes in amts. corresp. to enzymatic activity of 0.05-1.5 mIJT/g. (B) are pref. acid proteases active at pH 2.5-6.5.

The combination of (A) and (B) gives esp. high feed util-isation and wt. gain, esp. in (suckling) pigs and also in poultry. 8.12.78 as 872624 (12pp941)

GENO ★ D13 44062B/24 ★BE -874-

Stabilising erythrosine in aq. food substances below pH 4.5 -
combining with specified surfactants under shearing conditions

GENERAL FOODS CORP 08.02.79-BE-874045

A97 E23 (29.05.79) A23l C09b

The process comprises combining the dye with an aq. m
-ium and a surfactant chosen from the monostearate, t
-stearate and mono-oleate of polyethoxylated (20 times)
sorbitan or mixtures of these under shearing conditions
effective to make the dye soluble in the food substance $\geq$
24 hrs. at 4.4-7.4°C.

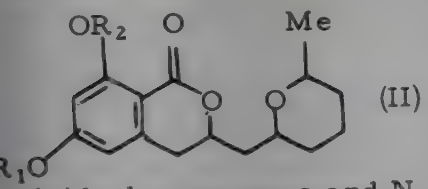
The dye prepd. as above is used in a dry mixt. comp
ising a flavour and an edible acid in amt. sufficient to
give the drink a pH of 2-4. 8.2.79 as 874045 Add to
870,061 of 29.8.78 (20pp597)

D13 35950F/00 =DS 1692-812
ods for improving the quality of protein contng
AESSEN SCHOEMAKER 15.02.65-NL-001845
*05 E19 (07.06.79) *GB1141-811 +A23b-04/12*
obasic aminoacids, (esp. those occurring in animal or
table proteins), their nontoxic salts or mixts. of such
. are used as additives in pickling baths for meat and
t prods. The acids are used in 1% aq. solns. of pH
. The presence of these additives improves the
ity of the pickled prods.· 9.2.66 as 692812
ex. 1768659 (7pp47)

D13 60017T/38 =DS 2208-594
nal foodstuffs prepn - from lignocellulose materials by
tment with alkali
UNILEVER NV 14.07.71-GB-033030 (24.02.71-GB-005275)
*C03 (07.06.79) *NL7202-216 A23k-01/12*
odn. of cattle fodder from materials contg. lignocellu-
e complexes comprises heating such materials (solids
tent ≥ 30%), with aq. alkali at 60-135° with intensive
chanical mixing, until ≥ 60% of the organic components
digestible. 23.2.72 as 208594 (7pp047).

SE/ D13 34532U/24 =DS 2262-498
i-smoking compsns - contg complex silver ions
ROSENBERG A (ROS /) 01.05.72-GB-020106 (23.12.71-GB-
059894)
*B06 P15 (07.06.79) *BE-793-051 +A61k-33/38*
ti-smoking chewing gum compsn. contains AgOAc, (4-6
. wt.); NH_4Cl, (4-10 pts. wt.); cocarboxylase, (0.02-
05 pts. wt.); and flavour additives, dispersed with med-
nal chewing gum components, (1000-2000 pts. wt.).
.12.72 as 262498 (3pp047).

RB ★ D13 44172B/24 ★DT 2753-513
tibacterial agents and animal feed additives - contg. cladosporin
d/or related cpds.
BAYER AG 01.12.77-DT-753513
B02 C02 (07.06.79) A23k-01/17 A61k-31/36
ntibacterial agents and animal feed additives contain
adosporin (I) and/or cpds. of formula (II) :



(II)

(where R_1 and R_2 are H, Me or acetyl).

(I) and (II) are active against B. brevis, C. pasteur
-ianum, A. citreus, S. lutea and certain strains of E.coli,
. viridochromogenes and N. brasiliensis. They are esp.
seful for promoting growth and improving feed utilisation
n ruminants, pigs and poultry. 1.12.77 as 753513(11pp367)

LTR- ★ D13 44203B/24 ★DT 2753-865
Milk sampling system - with strand of sample bags formed from two
oils and marked
ULTRAKUST-GERATEBAU 02.12.77-DT-753865
P13 R16 (07.06.79) A01j-07 G01n-01/10
A milk sampling system uses two foils which are welded
to a continuous line of open bags to be filled with the milk
samples from the various suppliers. An identification is
applied to a bottom strip of each bag to mark the time and
the code number of the milk supplier.

The system avoids all the human errors when the driv-
er of a milk collecting tanker has to keep a log of the bott
-les filled with the various samples. Errors in the test
laboratory are also eliminated and the whole sampling
process is speeded up. 2.12.77 as 753865 (16pp39)

FIRM ★ D13 44320B/24 ★DT 2852-783

3-Methyl-1,2,4-trithiane used in aromatising compsns. - for food, feedstuffs, beverages, tobacco and partic. meat and meat substitutes

FIRMENICH SA 06.12.77-CH-014890
B07 C03 E13 P15 (B03) (07.06.79) A23k-01 A23l-01/22 A24b-15/04 A61k-47

3-Me-1,2,4-trithian (I) is used as the active ingredient in aromatising compsns. esp. for flavouring food, animal feedstuffs, beverages, pharmaceutical compsns. and tobacco prods., and partic. for flavouring meat prods. and meat substitutes.

(I) develop roasted, grilled notes in cocoa, chocolate, d meat. (I) has an organoleptic character of roasted, fatty, meaty, burnt, grilled type and high aromatising power. (I) can be used in low concns., e.g. 0.05-0.5 (0.05-0.15) ppm w.r.t. food. 6.12.78 as 852783 (11pp200)

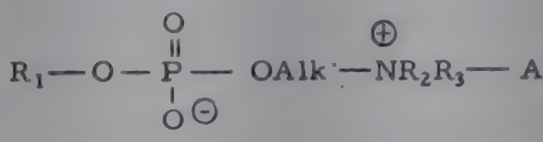
PLAC D13 42546B/23 =EP ---2-202

Ammonio-alkyl phospholipid analogues - useful for modifying cell wall properties e.g. for plant hybrid prodn.

MAX PLANCK GES WISSENSCH 24.11.77-DT-752553
*B05 C01 E11 (D25) (13.06.79) *DT2752-553 C07f-09/09 +A01n-09/36*

D/S: E(BE, CH, FR, GB, LU, NL, SW).

Phospholipid analogues of formula (I) are new.



$$R_1-O-\overset{\overset{\displaystyle O}{\|}}{\underset{\underset{\displaystyle O^{\ominus}}{|}}{P}}-OAlk-\overset{\oplus}{N}R_2R_3-A \qquad (I)$$

(Alk = 2-12 C linear, branched or cyclic alkyl;
A is NH_2 or $\left[CH_2-(CH_2)_x NR_4R_5 \right]_y R_6$;
R_1 is the residue of a mono- or polyvalent aliphatic primary or sec. alcohol in which any additional OH are esterified or etherified, the ester and ether gps. being of 1-26 C opt. with ≥ 1 C multiple bond; R_1 has altogether ≥ 6 C;
R_2, R_4 and R_6 are each H or 1-4 C alkyl;
R_3 and R_5 are each H, 1-4 C alkyl or free electron pair; and
x and y are each 1-5).

(I) modify the properties of cell membranes so are useful for inducing fusion of cells to form plant hybrids; as transport vesicles for pharmaceuticals and for modifying cell-wall receptor sites which are responsive to hormones. They also have immunostimulating activity and, since they are good, biodegradable emulsifiers can be incorporated in foods, detergents etc.

14.11.78 as 101365 (20pp1251).
(G) ISR:

MERI ★ D13 44337B/24 ★EP ---2-210

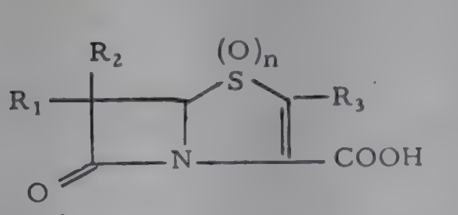
Pen-2-em-3-carboxylic acid and derivs. and 1 sulphoxide(s) - useful as broad spectrum antibacterials

MERCK & CO INC 10.10.78-US-948713 (17.11.77-US-852274)
B02 C02 E13 (D22) (13.06.79) A61k-31/43 C07d-205/08 C07d-499 C07f-09/65

Intermediate Priorities: 17.11.77(3); 10.10.78(2) - US-852275; 852278; 852427; 948711; 948712.

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Pen-2-em-3-carboxylic acid and derivs. and their 1-sulphoxides of formula (I) and their salts and esters are new:



(I)

(n is 0 or 1;
R_1 and R_2 are H, NH_2, NHAcyl or the following gps. all opt. substd., 1-10C alkyl, 2-10C alkenyl, 2-10C alkynyl, 3-4C cycloalkyl, (3-4C)cycloalkyl-(1-6C)alkyl or (1-6C)-alkyl-(3-4C)cycloalkyl, Ph, Ph-(1-6C)alkyl, Ph-(2-6C)-alkenyl, Ph-(2-6C)alkynyl, heteroaryl, heteroaralkyl, heterocyclyl or heterocyclylalkyl, the heteroatom(s) being 1-4 N, S or O; the opt. substituents are NH_2, mono-, di- or tri-(1-6C)alkylamino, OH, alkoxy, SH, alkylthio, PhS, SO_2NH_2, amidino, guanidino, NO_2, Cl, Br, F, CN or COOH;
R_3 is H, R, OR, SR or NRR;
R is 1-6C alkyl, Ph, 7-12C phenylalkyl, heterocyclyl or heterocyclyl-(1-3C)alkyl, the heteroatom(s) being 1-4 N, S or O, and R is opt. substd. by NH_2, mono-, di- or tri-(1-6C)alkyl, OH, alkoxy, SH, 1-3C alkylthio, PhS, SO_2NH_2, amidino, guanidino, NO_2, Cl, Br, F, CN or COOH, provided that when n is 1, R_3 is not SR).

(I) are broad-spectrum antibacterials useful as therapeutic agents, as animal feed additives, for preserving foodstuffs, as disinfectants and as industrial bactericides,

esp. in water-based paints and in the white water of paper mills. Dose is 15-600 mg./kg. daily.
17.11.78 as 101388 (150pp1248).
(E) ISR: BE-849118; NL7804974; BE866845; DT2819655; EP0000636.

UNIC ★ D13 44407B/24 ★EP ---2-368
Rapidly dissolving water-soluble polymer compsn. - contg. a water-insoluble organic liq., nonionic surfactant and inert thickener
UNION CARBIDE CORP 02.12.77-US-856980
A25 B07 H07 (B04 D16) (13.06.79) C08j-03/02 C08l-71/02
D/S: E(BE, DT, FR, GB, IT, NL).

A non-aq. compsn. comprises (A) a particulate, water-soluble, high mol.wt. polymer; (B) a water-insoluble organic liq. vehicle which is a non-solvent for (A), in an amt. sufficient to coat (A); (C) an inert nonionic surfactant, compatible with (B), having a hydrophilic-lipophilic balance of 3-5 or 9-13, in an amt. sufficient to remove (B) from (A) upon dilution with water; and (D) 0-5 wt.% of an inert thickener which retards stratification of the compsn. when fluidized.

The compsn. is stable and rapidly provides, upon dilution with water, a soln. of (A) without agglomeration. The compsn. may be used as a thickener for water-based paints, as a foam stabilizer in beer, as a binder for tablet mfr., as a protective colloid for emulsion polymsn., as a fabric dyeability enhancer, or as a thickening agent for food. Also the non-aq. slurry is useful as a lubricant when dissolved in aq.soln.
1.12.78 as 300709 (30pp558).
(E) ISR: GB1397933; US3282874; DT2208519.

CRIN- ★ D13 44435B/24 ★FR 2402-418
Ruminant feed prodn. from straw - by treating with sodium hydroxide in presence of oxidn. catalyst (SW 9.4.79)
CRINA CENT RECH INT 13.09.77-CH-011185
C03 (11.05.79) A23k-01/12

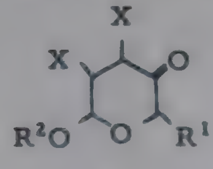
Prodn. of feed for ruminants comprises chopping up straw (or analogous material contg. lignocellulose) to pieces of max. length 0.1-5 cm, opt. grinding, then mixing with 1-10% NaOH and 0.5-5% oxidation catalyst at a moisture level of 10-20%.

The mixt is then vigorously mechanically milled at 60-100°C, and the prod. granulated. Esp. mixing is at 40-50°C for 10-40 min. and pref. oxidation catalysts are salts of Cu, Fe, Mn, Co, V, Cr or Ni. The starting material may be treated with 0.1-2% of an oxidant, e.g. a nitrate or permanganate, and 0.1-5% urea.

Digestibility and nutritional value are superior to thoseof other straw-based feeds. When added to feed concentrates at 35% a material derived from wheat straw provides 90% of the energy of barley. 4.9.78 as 025382 (9pp1251).

SHIE ★ D13 44451B/24 ★FR 2402-654
Tetra:hydro-pyranone derivs. - useful as intermediates for cpds. used as food flavours
SHINETSU CHEM IND KK 18.05.78-JA-059310 (12.09.77-JA-109675)
C02 E13 (11.05.79) C07d-309/28

New derivs. of tetrahydropyranone (5) are of formula (I) (where R^1 = H or 1-7C (esp. 1 or 2C) hydrocarbon; R^2 = 1-7Chydrocarbon or acyl; X = halogen).



(I)

(I) are used as intermediates in the synthesis of diverse organic cpds., esp. for use as flavours in human and cattle foods. Cpds. such as 2-Me-3-OH-pyrone(4) (maltol) are important as flavours. The present cpds. easily self-hydrolyse to produce cpds. such as maltol. 11.9.78 as 025986 (+ 12.12.77 - JA - 149605) (20pp1329).

RECK- ★ D13 44477B/24 ★GB 2008-924
Making expanded farinaceous snack foods - by removing moisture from half product by immersion in hot fluidised bed
RECKITT & COLMAN PR 05.12.78-GB-047232 (24.09.77-GB-039856)
*(13.06.79) A23l-01/**

Expanded, cooked, snack-type products are produce treating intermediate stage products having a moist ntent in the range of 10-15 wt. % and in laminar forn remove a major part of the moisture.

The half product is heated by immersion in a ma oil-free and fat-free hot dry particulate material, e salt or calcium carbonate. Expansion of the half pr permitted only in its own plane, e. g. by use of an e belt overlying a conveyor belt in the particulate mat 5. 12. 78 as 047232 (5pp1057)

NIOF ★ D13 44590B/24 ★J5 4
Solid edible oil prepn. - by sepg. low m.pt. oil from raw edi hydrogenating, purifying and deodorising
NIPPON OILS & FATS KK 07.10.77-JA-119996
(D23) (28.04.79) A23d-05 C11b-07 C11c-03/12

Low m. pt. oil is (a) sepd. from raw edible oil which solid at ordinary temp., (b) hydrogenated selectively (c) purified and deodorised according to known metho Tasteable, rancidity-resisting solid edible oil having pt. similar to or lower than bodily temp. can be pre from edible oil which is solid at ordinary temp.

In process (a) content of satd. triglyceride in the solid edible oil (e. g. palm oil, tallow, lard) is lower to 0-80 wt. % (pref. 0-50 wt. %) by (1) fractional cryst sation using organic solvent, (2) fractional precipitat slow cooling without using solvent or (3) centrifugal s of cooled oil with the addition of water contg. surface ive agent. Usually, 70-95 wt. % of low m. pt. oil is s from raw solid oil by this process.

Oil obtd. by process (a) is hydrogenated at 160-21 and 0-2 kg/cm² (pref. 0-1 kg/cm²) hydrogen press. u ordinary catalyst of Ni, Cu or Cu-Cr, and hydrogenat oil having 25-38°C (pref. 30-37°C) m. pt. and reduce tent of linolic glyceride in amt. of 0-85 wt. % (pref. 0 wt. %) of that of raw solid oil is prepd. 7. 10. 77 as 11 (3pp170)

ASAE ★ D13 44605B/24 ★J5 40
Chlorophyll sepn. using waste terra obtd. by sal seed fat puri by treating terra alba with non-polar solvent to remove soluble extracting chlorophyll into polar solvent
ASAHI ELECTROCHEM IND KK 06.10.77-JA-120428
E24 (28.04.79) C09b-61

Chlorophylls are obtd. from waste terra alba produce the decolouring process in the purificn. of salseed fat treating the waste terra alba with a non-polar solvent remove the soluble contents and then extracting the c ophyll content into a polar solvent.

Known processes extn. from spinach, alfalfa, etc. various methods, e. g. with organic solvents plus DM with methanol, by pH adjustment, etc. need large am vegetables and are expensive. This process uses the terra alba in a simple method.

Examples of the non-polar solvent are n-hexane, c hexane, petroleum ether (b. pt. 30-50°C), etc. The t alba is stirred with 1-10 (3-5) times of a non-polar so at 10-70 (15-25)°C, pref. under atmospheric pressur an inert gas for 10-15 min. to remove the bulk of the tral oils. The chlorophylls are extracted with a polar vent e. g. acetone, chloroform, methanol, ethanol, et amts. of 1-10 (3-5) times by stirring for 10-30 mins., er which the solvent layer was subjected to evapn. und reduced pressure to obtain conc. oil-soluble chloroph 6. 10. 77 as 120428 (3pp119)

ASAH ★ D13 44621B/24 ★J5 405
Water-dispersible compsn. for stabilising food - comprises cellu dispersant and e.g. starch
ASAHI CHEMICAL IND KK 08.10.77-JA-120717
A11 (A97) (28.04.79) C08l-01/02 C08l-05

The material consists of (I) 50-95 wt. % fine cellulose stals and (II) 50-5, pref. 40-10 wt. % dispersant and (I soluble starch, α-starch, dextrin, modified starch, m saccharide, such as cane sugar or grape sugar, disac rides, etc. which is soluble in cold water and shows a no viscosity. The (II):(III) wt. ratio is 1:9 to 9:1. The gredients are ground and mixed in the presence of > 2 water, and the mixt. is dried to a water content of > 2 pref. 15-18%.

The cellulose is obtd. by e. g. acid hydrolysis, and

s >1 µ are present in amts. >1 wt. %. The disper-
s are water-swellable or dispersible gums, such as
st bean gum, guar gum and karaya gum.
'he material is readily dispersible in water, exhibits
ellent dispersion, emulsion, foam and thermal stability
good water retention and prevents formation of ice
stals. It is useful for ice cream, dressing, puddings,
temp. sterilised food, etc. 8.10.77 as 120717
pp172)

JS- ★ D13 44693B/24 ★ J5 4054-883
**mented animal feed mfr. from vegetable fibre - which is mixed
n enriched feed material, e.g. barley, corn etc., and sterilised
l fermented**
KYUSHU BISEIBUTSU R 04.10.77-JA-118545
C03 (D16) (01.05.79) A23k-01
getable fibre material, e. g. saw dust, mechanically
ound rice straw, chaff, or bagass, chemically digested
ste wood, bark, wood chips, etc. is mixed with an en-
ched feed material, e. g. barley, corn, oil cake, rice
an, etc. The mixture after being sterilised, is fermen-
d by the addition of Aspergillus at a fixed temp., the
ixt. is further fermented by the addition of Rhizopus
panicus and Saccharomyces, and lastly the mixture is
ixed with $<3\%$ urea in order to enhance the amount of
rude protein.

This fermented feed has a high digestability, and does
ot generate offensive odours from droppings of animals
ed on the feed, and also can bread animals with smaller
mount of feed and at lower cost. 4.10.77 as 118545
3pp117)

AKE/ ★ D13 44733B/24 ★ J5 4054-988
**ir separator for producing nitrogen-rich gas - used in devices for
toring food, has magnet in air passage for attracting paramagnetic
ir molecules**
TAKEHARA S 07.10.77-JA-121217
E36 J01 (01.05.79) A23b-04 A23b-07 C01b-13/02 C01b-21/02
To separate the air into gases rich in O_2 and N_2 in a simple structure, a magnet is disposed in an air flow passage so that O_2 molecules in the atmos. are attracted to the magnet by the effect of its paramagnetism. An outlet flow passage is connected to the air flow passage to take out a gas rich in O_2.

In the result the rest of the air becomes rich in N_2 in the air flow passage formed in the separator, which is connected to a reservoir tank, which may be carried on a vehicle for carrying the fresh prods. exposed to the gas rich in N_2. 7.10.77 as 121217 (5pp26)

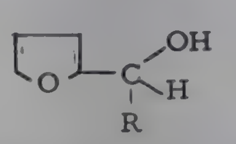
ASAH ★ D13 44769B/24 ★ J5 4055-054
Water dispersible complex for ice-cream and desserts - obtd. by mixing crystalline cellulose with dispersion integrating agent, mashing kneading and drying
ASAHI CHEMICAL IND KK 11.10.77-JA-120909
(D17) (01.05.79) C08l-01/02
The complex is prepd. by (1) combining (a) 50-95 wt. % finely crystalline cellulose which has average polymerisation degree <375 and average particle size <15 µ and contains >5 w/w% of granules of <1 µ and (b) 50-5 (10-20) wt% of dispersion-integrating agent, (2) mashing and kneading the mixture in presence of >25 w/w% moisture and (3) drying to moisture 2.5-15 w/w%.

The complex shows the excellent effects on dispersion stability, emulsion stability, prevention of crystallisation, foam-stability, thermal stability, etc. and can be combined in ice cream, ice cake, dressing, pudding, topping cream, etc.

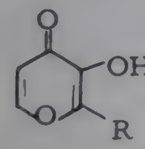
As the dispersion-integrating agent guar gum, karaya gum, carrageenan, xanthane gum or starch hydrolysate can be used. 11.10.77 as 120909 (16pp5)

SHIE ★ D13 44868B/24 ★ J5 4055-570
2-(2-Methyl-1'-propenyl)-4-methyl-tetra:hydro pyran prepn. - by oxidising the 2-hydroxymethyl deriv. and carrying out a Wittig reaction on the resulting aldehyde
SHINETSU CHEM IND KK 07.10.77-JA-120743
E13 (02.05.79) C07d-309
Prepn. of 2-(2'-methyl-1'-propenyl)-4-methyltetrahydropyran, partic. the (-)-cis form useful as flavour compri[illegible] [illegible]ymethyl-4-methyltetrahydropyran to form an aldehyde cpd. and then subjecting the prod. to Wittig reaction. The oxidation of (I) is conducted by using an oxidising agent, e. g. chromic acid, pyridinium chlorochromate, etc., pref. using a solvent, e. g. methylene chloride, acetone, etc. The Wittig reaction is conducted by using isopropylidene triphenylphosphoran. The reaction proceeds at room temp. 7.10.77 as 120743 (3pp140)

SHIE ★ D13 44869B/24 ★ J5 4055-571
3-Hydroxy-4-pyrone cpd. prodn. - by reacting furyl:carbinol cpd. with halogen in organic acid or its alkali(ne earth) metal salt
SHINETSU CHEM IND KK 07.10.77-JA-120744
E13 (02.05.79) C07d-309
3-Hydroxy-4-pyrone cpds. of formula (I), useful as flavouring agents for foodstuffs and feeds, are prepd. by reacting a furylcarbinol cpd. of formula (II) with halogen (e. g. chlorine or bromine) in the presence of (a) an organic acid (e. g. formic acid, acetic acid, propionic acid, (iso) butyric acid, etc.) and (b) an alkali(ne earth) metal salt of an organic acid (e. g. sodium acetate, sodium propionate, potassium acetate, etc.), adding water to the reaction mixt. and heating. In the formulae, R is H or 1-7C monovalent hydrocarbon.



(II)



(I)

The reaction steps are very simple. Dangerous substances, such as peroxides, are not required. Pref. 3-15 mol. of (a), 2 mol of (b) are used per mol of (II); the reaction is at 0-50°C and the reaction system is pref. maintained under anhydrous conditions. 7.10.77 as 120744 (5pp140)

TOPP ★ D13 44933B/24 ★ J5 4055-748
Preservative compsn. for fruit and vegetable - comprises an adsorbent, e.g. bentonite; a hydrated ferrous salt; an alkaline cpd. and water or a sulphite
TOPPAN PRINTING KK 05.10.77-JA-119653
(04.05.79) A23b-07
The agent is composed ot (I) an absorbent composed of $\geqslant 1$ active carbon, bentonite, artificial zeolite, etc. (I) a hydrate of a ferrous salt, (II) an alkaline substance, (IV) water or a sulphite and opt. (V) a deliquescent substance (e. g. magnesium chloride) and/or an alkali metal carbonate (e. g. sodium bicarbonate).

(I) adsorbs ethylene, alcohol, etc., which vegetables and fruit gradually form during their preservation; (II) and (III) (e. g. calcium hydroxide) absorb oxygen through water and release water formed by the reaction. Thus the respiration of vegetables and fruits can be suppressed and the released water suppresses the evaporation of water from them. When they are under humid conditions, oxygen can be absorbed in the presence of sulphite or deliquescent substance, even under water-free condition. When alkali carbonate, such as calcium bicarbonate, is present, CO_2 gas is formed by the reaction which also suppresses the respiration of vegetables and fruits and the growth of mould. 5.10.77 as 119653 (4pp5)

NNTR ★ D13 44934B/24 ★ J5 4055-749
Processed food prepn. from plum kernel - by immersing the boiled, peeled and dried kernels in aq. soln. of sodium chloride, acetic acid, malic acid, citric acid, etc.
NIPPAN BOEKI KK 12.10.77-JA-123635
(04.05.79) A23l-01/21
The method comprises boiling plum kernels, peeling their inner skin, drying them to a moisture content $<50\%$, pref. 30-50% and immersing them in an aq. soln. contg. 20-30% sodium chloride, 0.015-0.045% acetic acid, 0.6-0.9% malic acid, 2.1-2.4% citric acid, etc.

Instead of the above soln., a commercial plum vinegar can be used. The soln. may also contain pigment, minerals, etc. The immersion is practiced for 5-10 days, and after the immersion the prod. is dried to a moisture content of 10%. 12.10.77 as 123635 (2pp5)

FUKO ★ D13 44935B/24 ★J5 4055-752

Packaging or casing material for fish paste, etc. - is prepd. by treating cellophane with hypochlorite and coating with aq. soybean protein soln.

FUJI OIL KK (OSAK-) 11.10.77-JA-122255
A92 (A11) (04.05.79) A22c-13 A23b-04/10 A23l-01/32

The method comprises using cellophane as the basic film, treating its surface with hypochlorite, drying, spreading aq. soybean protein soln. on it, and drying.

Adhesive between cellophane and soybean protein film is improved and the film is not separated by water, even after immersing the packaged foods in water at 80°C for 2 hrs.

Pref. the hypochlorite is sodium, potassium or calcium hypochlorite, used in an amt. of 0.03-0.1 g/m². The aq. soybean protein soln. may contain 1-6 w/w% plasticiser of glycerin and/or propyleneglycol to give a plastic property. The solution may contain pigment, other vegetable protein, animal protein and/or starch; and amt. of soybean protein is > 60 w/w% of protein and starch. 11. 10. 77 as 122255 (5pp5)

LOTT ★ D13 44937B/24 ★J5 4055-760

Chewing gum base with improved film forming property etc. - comprises vinyl acetate resin, ester gum, polyisobutylene and jojoba wax as replacement for petroleum wax

LOTTE KK 07.10.77-JA-120018
A97 (A14 A17) (04.05.79) A23g-03/30

Chewing gum base comprises vinylacetate resin and ester gum, polyisobutylene, petroleum hydrocarbon wax, glycerin fatty acid ester and calcium carbonate or talc, the petroleum hydrocarbon wax being replaced with Jojoba wax wholly or partly. The gum is composed of 95-70 w/w% of the chewing gum base and 5-30 w/w% pref. 15-30 w/w% of Jojoba wax.

Bubble gum prepd. from the gum has improved film-forming property, easiness in inflating bubbles, non-adhesive property to teeth, etc. The vegetable Jojoba wax not only can be used as the secondary softening agent instead of microcrystalline wax, and also prevents adhesion to teeth. 7. 10. 77 as 120018 (4pp5)

LOTT ★ D13 44938B/24 ★J5 4055-761

Complex chewing gum base - contg. pyrolysed prod. of natural rubber and opt. plain-kneaded natural rubber

LOTTE KK (TAKS) 12.10.77-JA-121544
A97 (A11) (04.05.79) A23g-03/30

Complex chewing gum base is composed of 2-60% of pyrolysed product of natural rubber singly or together with the plain-kneaded natural rubber having Mooney viscosity 10-35 (ML_1+_4 100°C) and 98-40% of chewing gum base. The pyrolysed product of natural rubber can be prepared by pyrolysing natural rubber in inert atmos. and removing low volatile components from the pyrolysed product.

The chewing gum prepared from the chewing gum base alone in elasticity, smoothness, durability in taste and flavour and resinous touch. 12. 10. 77 as 121544 (5pp5)

ASAH ★ D13 44939B/24 ★J5 4055-762

Ice cream contg. milk solid, sweetener, emulsifier, water and complex - where the complex comprises a mixt. of fine crystalline cellulose, a dispersing agent and disaggregating agent

ASAHI CHEMICAL IND KK 00.00.78-JA-048739 (08.10.77-JA-120717)
(04.05.79) A23g-09

The ice-cream compsn. comprises milk-solids, sweetener, emulsifier, water and a complex which is prepd. by mixing 50-95 pts. wt. of fine crystalline cellulose (I) and 50-5 pts. wt. of a mixt. of dispersing agent (II) and disaggregating agent (III) (the ratio of (II)/(III) is 9/1-1/9) in the presence of water, and drying the mixt.

The compsn. is used for hard ice-cream, and hardly causes whey-off. The ice cream is soft and pleasant to the palate and does not melt quickly in sudden heat.

Pref. as emulsifier, 1 or 2 monoglycerides of stearic oleic and palmitic acid is/are used. Examples of (II) are guar gum, carrageenan, furcellaran, karaya gum and xanthan gum. (III) is the cpd. that disaggregates (I) to individual particles when (I) is mixed with (II), (III) and water. Examples of (III) are glucose, sucrose, fructose, lactose or (cyclo)dextrin. 8. 10. 77 as 48739/78 Div. ex. 1207 (9pp42)

ASAH ★ D13 44940B/24 ★J5 405

Drink compsn. based on water, fat, cocoa and sweetener - complex based on crystalline cellulose and mixt. of dispe agent and disaggregating agent

ASAHI CHEMICAL IND KK 00.00.78-JA-041226 (08.10.77 120717)
(04.05.79) A23g-01

Drink compsn. is composed of water, fat, cocoa, swee ener and a complex, which is prepared by mixing 60-9 pts. wt. of fine crystalline cellulose (I) and 40-5 pts. of mixture of dispersing agent (II) and unravelling agen (III) in the ratio of (II)/(III) = 9/1-1/9, in the presence water and drying the mixt.

Examples of (II) are guar gum, carrageenan, fucella karaya gum, and xanthan gum. (III) is the compound th unravels (I) ti individual particle of (I) when (I) is mixe with (II), (III) and water and as (III), glucose, sucrose, fructose, lactose, dextrin and cyclodextrin are listed.

The present compsn. is used for coffee-milk, cocoa milk and chocolate-drink and these drinks prepared from the present composition have high stability of emulsion. 8. 10. 77 as 41226/78 Div. ex. 120717/77 (5pp4

ASAH ★ D13 44941B/24 ★J5 4055-7

Dressing compsn. - comprises fat, seasoning, water and a compl obtd. from crystalline cellulose and mixt. of dispersant a disaggregating agent

ASAHI CHEMICAL IND KK 00.00.78-JA-060562 (08.10.77-J 120717)
(04.05.79) A23l-01/24

Dressing compsn. is composed of fat, seasoning, water and a complex which is prepd. by mixing 50-95 pts. wt. fine crystalline cellulose (I) and 50-5 pts. wt. of a mixt. of a dispersing agent (II) and an unravelling agent (III) in a ratio of (II)/(III) = 9/1-1/9 in the presence of water an drying the mixt.

The compsn. gives a dressing which has high emulsio stability and hardly causes coagulation or sepn. of oil ev at low pH.

As fat, corn oil, rapeseed oil, peanut oil, soybean oi cotton oil, sesame oil, etc. are used. The seasoning m be sugar, salt, vinegar or spice. (II) is e.g. guar gum, carrageenan, karaya gum, tragacath gum or xanthan gum (III) is a cpd. that unravels (I) to individual particles of (when (I) is mixed with (II), (III) and water. (III) may be glucose, sucrose, fructose, lactose, dextrin or cyclodextrin. 8. 10. 77 as 60562/78 Div. ex. 120717/77 (6pp42)

NAGA- ★ D13 44964B/24 ★J5 4056-02

Metal casting mould prodn. - using aromatic polymer with surfac amino or hydroxy gps., which is used in prodn. of aminoacid fro soybeans, as binder

NAGASAKI KEN 12.10.77-JA-122810
A81 M22 P53 (04.05.79) B22c-01/02

In the prodn. of a casting mould blown with CO_2, a resin of good physical adsorptive performance and having amine or a phenolic OH radical coexisting on surface of a porous aromatic polymer used as decolouring agent in the prodn. of refined amino acid from degreased soybean, is mixed into a moulding sand used with caking agent of sodium silicate, then compacted and hardened in routine manner.

The mould has sufficient normal temp. strength after being moulded, and its residual strength after being filled with a molten metal is reduced so it is easier to collapse the mould. Repeated application(sic) or reproductive performance of the casting mould is very good. 12. 10. 77 as 122810 (4pp53)

MITN D13 59897Y/34 =J7 9012-275

Oxygen absorbant for preservation of e.g. vegetables - comprises alkaline earth metal sulphite(s), transition metal or aluminium salt and water

MITSUBISHI GAS CHEM IND 29.12.75-JA-157381
*E33 (22.05.79) *J52081-085 A23l-03 B01d-53/16*

The oxygen absorbing agent are composed of $\geqslant$1 alkaline earth metal sulphite, $\geqslant$1 transition metal salt except for ferrous salts or Al salts, and 2-200 pts. wt. water or 100 pts. solid.

lkaline earth metal sulphites are e.g. the Mg., Ca Ba salts. Transition metal salts are e.g. sulphates, rides, nitrates, carbonates and oxalates of Al, Cr, Co alent Fe and Cu. The agents show a very high oxygen rption rate and are e.g. suitable for use in maintain- freshness of vegetables, fruits and fishes.

n an example, 20.g. $CaSO_3.1/2\ H_2O$, 0.17g. $FeCl_3$. O and 0.5g. water are admixed. The produced oxygen orbing agent shows an absorption of 13ml. after 5 hrs. l. after 60 hrs. and 104ml. after 90 hrs. 29.12.75 57381 Bold 53/16; A231 3/oo (22.5.79) MITSUBISHI S CHEM IND (5pp)(J5 2081085)

N D13 63919Y/36 = J7 9012-277

gen absorbent stable in oxygen-free atmosphere - comprises alkali metal sulphite, transition metal salt, difficultly water- ble solid and water

MITSUBISHI GAS CHEM IND 22.01.76-JA-006203

*E37 (22.05.79) *J52089-590 A23l-03 B01d-53/16*

ygen absorbent consists of (a) ≥ (hydrogen) sulphite or rosulphite of alkali metal of ammonium, (b) ≥1 transit- metal salt or Al salt, (c) difficulty water-soluble solid d (d) free water, and opt. (e) > 1 alkali(ne earth) metal d N-contg. base (in place of the sulphite).

The prod. shows oxygen absorbing capacity immediate- after prepn. and performances under wide range. .1.76 as 006203 B01d 53/16, A231 3/00 (22.5.79) MITS- BISHI GAS CHEM IND (8pp58) (J5 2089590)

IA- D13 ✓ 37317A/21 = J7 9012-279

oxygenation of food, fur, clothes etc. - using e.g. di:butyl- droxy-toluene and alkali liq. on a carrier e.g. diatomaceous earth

DAIA TOKKYO PROJECT 24.09.76-JA-114527

*E14 G04 +P34 (22.05.79) *J53039-988 A23l-03 B01d-53/16 +A61l-13*

deoxygenator (I) is produced by adsorbing dibutyhydroxy- luene (BHT) and/or butylhydroxyanisole (BHA) and alkali q. onto a carrier e.g., rice bran, diatom earth or earth ulp sheet. Specifically, diatom earth is impregnated with austic soda aq. soln. of a relatively high concn. (e.g., 0%) so that liq. is not bled, and BHT and/or BHA of about en times the amt. (solid) of the alkali used is added to the mpregnated carrier. About 1-2 g. of BHT and/or BHA is uitable for absorbing oxygen in 200 cc. of air.

In use the deoxygenator is contained in a plastic bag aving gas-permeable holes, or together with substance to be deoxygenised in an air-tight package bag or vessel. The leoxygenator does not lower the deoxygenising activity even in long period storage at normal temp. and exhibits high deoxygenising activity. 24.9.76 as 114527 B01d 53/16 A231 3/00; A611 13/00 (22.5.79) DAIA TOKKYO PROJECT (4pp)(J5 3039988)

TOYJ D13 69578Y/39 = J7 9012-280

Removing sulphates from phosphoric acid soln. - by addn. of barium salt(s) followed by contacting the soln. with hydrogen sulphide and filtering

TOYO SODA KK 13.02.76-JA-013942

*B06 C04 E36 (22.05.79) *J52097-388 C01b-25/18*

The method comprises adding Ba cpds. (III) to the soln. (II) contg. more than 70 w/w % H_3PO_4 and after contacting with H_2S (IV), filtering off solids in (II) at < 80°C. (III) should be added so that the concn. of SO_4^{2-} ions in (II) is >5 ppm.

(II) is prepd. by decomposition of F ore with sulphuric acid and purified by extn. with organic solvent such as al- cohol, ketone and/or ether. (III) are e.g. Ba hydroxide, carbonate, phosphate, sulphide, nitrate and chloride. The super satn. of $BaSO_4$ in (II) can be broken and crystall -ization can be promoted by contacting (II) with (IV).

The treated phosphoric acid soln. can be used for foods and pharmaceuticals. 13.2.76 as 013942 C01b 25/18 (22.5.79) TOYO SODA MFG KK (5pp)(J5 2097388)

KAJI/ ★ D13 45185B/24 ★ J7 9012-543

Fine table salt particles prepn. - by first mixing low temp. high concn. table salt soln. with crystalline or high concn. form calcium chloride

KAJITANI H 26.04.69-JA-032565

E34 (23.05.79) C01d-03/22

High concn. table salt soln. at low temp. is mixed with crystalline $CaCl_2$ of high concn. aq. $CaCl_2$ soln. at high temp. and then fine crystals of table salt are allowed to form without concn. by evapn. The resulting fine crystals are recovered and washed with saturated table salt soln. or alcohol or other hydrophillic solvent, and the mother liquor is conc. by heating so that high concn. aq. $CaCl_2$ soln. or crystalline $CaCl_2$ is formed, and the soln. or crytal is recovered and re-used as the starting material. 26.4.69 as 032565 C01d 3/22 (23.5.79) KAJITANI H (3pp22)

MATS- ★ D13 45186B/24 ★ J7 9012-544

Liq. foodstuff contg. thickener - obtd. by hydrolysing starch with alpha-amylase, swelling starch and dispersing, again hydrolysing and hydrogenating

MATSUYA KAGAKU KOGY (NIKN) 09.12.72-JA-123831

(D16) (23.05.79) A23c-09/12 A23l-01 C12d-13/12

Liq. foodstuff contains as thickener, a product which is prepared as follows: starch is hydrolysed by a α-amylase and the stach is swelled and dispersed until DE becomes 3, then further hydrolysed to a DE of 7 to 20, followed by subjecting to hydrogenation. 9.12.72 as 123831 A231 1/00 A23c 9/12, C12d 13/12 (23.5.79) MATSUYA KAGAKU KOGYO KK AND NIKKEN KAGAKU KK (5pp22)(J4 9081555)

UNIL D13 ✓ 42065V/23 = J7 9012-545

Cheese flavour compsn - contg 2-phenyl-ethanol and methyl-1-butanols, to impart Italico cheese flavour to non-ripened cheese

UNILEVER NV 22.11.72-LU-066516

*(23.05.79) *DT2358-087 A23c-19/12 A23l-01/22*

Food products, partic. cheese having flavour of Italico-cheese, are prepd. by adding an aroma compsn. contg. 2-phenyl ehtanol (I) and Me-1-butanols (II), and opt. other cheese flavouring components, in amounts such that prod. contains 0.3-10mg/kg (I) and 3-40 mg/kg (II), where (I) : (II) ratio is esp. 1:3 to 1:4. Aroma compsn. pref. also contains > 1 3-6C alkanoic acid. 21.11.73 as 131164 (clg. 22.11.72-LU-066516) A23c 19/12 A231 1/22(23.5.79) UNILEVER N V (4pp) (J4 9133551)

UNIL D13 00637V/01 = J7 9012-547

Synthetic cream concentrate - consisting of homogenised emulsion of fat, monoglycerides, egg yolk and aqs phase

UNILEVER NV 15.06.72-GB-028097

*(23.05.79) *NL7308-331 A23l-01/19*

Synthetic cream concentrate contains (I) 35-50% wt. fat, (II) 0.1-1.5% wt. monoglyceride (III), 1-6% wt. egg yolk, and (IV) an aqs. phase, with additional, saccharose, dextrose, lactrose or fractose and 5-5% wt. polyalcohols. Remains pourable and microbiologically stable for ~6 weeks when stored at room temp. 14.6.73 as 067314 (clg. 5.6.72-GB-028097) A231 1/19 (23.5.79) UNILEVER N V (5pp)(J4 9048855)

YAMS D13 23536V/13 = J7 9012-549

Disodium guanosine-5′-monophosphate crystn - from soln contg polyalcohols

YAMASA SHOYU CO LTD 28.07.71-JA-055997

*E11 (23.05.79) *J48022-662 +A23l-01/22*

Na_2 GMP was crystd. from a GMP soln. contg. > 1 of polyalcs. or their derivs. at pH 7.0-10.0 and 70°. In contrast to the conventional methods, this procedure was simple and the yield was high. The best result of crystn. was obtd. from a 10-30% GMP soln.

In an example 12g Na_2 GMP was dissolved in 40 ml. H_2O at 30° and adjusted to pH 9.7 with NaOH and 60ml. diethyl -glycol was added gradually with stirring to form rectangu -lar crystals. The crystals were washed with MeOH and dried at 40° to produce 13.6g cryst. Na_2 GMP. 28.7.71 as 055997 A231 1/22 (23.5.79) YAMASA SHOYU CO LTD (5pp)(J4 8022662)

UNIL D13 ✓ 56984S/35 = J7 9012-550

4-cis-decanol giving chicken flavour to food - stuffs

UNILEVER NV 24.02.70-LU-060396

*E17 (23.05.79) *BE-763-418 A23l-01/23*

Improving and reinforcing the aroma of chicken in food products, involves adding to the foodstuff (i) 4-cis-decen- al or a precursor and (ii) one or more aldehydes, of 11- 17 contg. 2-4 double bonds. Pref. (i) is a functional deriv.

of 4-cis-decenal e.g. 2-(3-cis-noneyl)-thiazolidine-4-carboxylic acid etc. 23.2.71 as 008942 (clg. 24.2.70-LU -060396) A231 1/231 (23.5.79) UNILEVER N V (7pp) (J4 6003273)

QPPP ★ D13 45188B/24 ★J7 9012-551

Mustard paste prodn. - involves bonding stretched elastomer strips to back of leather using nitrile rubber-phenolic resin adhesive to gather the leather and dyeing

Q.P. CORP 17.01.74-JA-007542

(23.05.79) A23l-01/22

To aq. material such as dextrin contg. edible colouring agent is blended with mustard powder, and to the mixt. is further added fat contg. mustard extract. The mixt is then emulsified and homogenised to form paste mustard. 17.1.74 as 007542 A231 1/221 (23.5.79) QP CORP (5pp) (J5 0101562)

FIRM D13 54472S/34 #J7 9012-552

Synthetic flavour - modifying agents for coffee and other beverages and foods

FIRMENICH SA 29.04.66-CA-959164 (30.04.65-US-452342)

*E13 (23.05.79) *CA-878-421*

KFRU= ★ D13 45214B/24 ★SU -619-145

Gas compsn. for storing fruit - comprises oxygen, carbon di:oxide, sulphur di:oxide and nitrogen

KAZA FRUIT WINE 07.06.76-SU-369567

P12 (10.07.78) A01f-25

Gas compsn. for storing fruit has increased permissible component percentage range. It comprises (in wt.%) O_2 3-16, CO_2 3-8, SO_2 0.002-0.01 and N_2 balance.

Gudkovskii, V.A., Lyanova, Kh.Kh. Bul. 30/15.8.78. 7.6.76 as 369567 (2pp1347)

UMEA= ★ D13 45219B/24 ★SU -619-165

Soured milk drink prodn. - by fermenting pasteurised milk with a symbiotic mixt. of lactic ferments

UKR MEAT DAIRY RES 22.03.77-SU-468007

(D16) (30.06.78) A23c-09/12

Soured-milk drink 'Aerin' is made by adding sugar to milk, pref. skimmed milk, pasteurising, cooling to fermentation temp. and adding a symbiotic lactic culture made up from Streptococcus cremoris 20, Leuconostoc cremoris P-10 and Leuconstoc dextranicum P-60 with additional sowing with Lactobacterium casei, present in a respective ratio of 2:1:1:1/3. Fermentation is continued at 25°-30°C for 6-8 hrs., with periodic stirring during the first 3 hrs. Fruit flavouring or fillings etc. may then be added and the product stirred, cooled and packaged. It may be optionally carbonated.

The method provides a food product with excellent flavour, consistency and stability.

Romanskaya, N.N., Bashirova, R.S., Kochubei, S.I. etal Bul. 30/15.8.78. 22.3.77 as 468007 (2pp314)

ULES= ★ D13 45220B/24 ★SU -619-166

Feedstuffs additive for ruminant livestock based on sunflower husk - also includes sunflower kernel waste, oil-cake, urea, mono:calcium phosphate, salt and other nutrients

UKR LESOSTEP POLESI 01.06.76-SU-366579

C03 (27.06.78) A23k-01/16

The feedstuffs additive comprises: 70-80% sunflower husks, 6.0-8.0% sunflower seed kernel waste, 6.0-12.0% oil cake, 1.5-5.0% 'Phos' (RTM), 2.0-10.0% urea, 2.0-3.0% mono Ca phosphate, 2.0-3.0% kitchen salt and 0.5-1.0% 'premix'. The additive has high nutrient value and assimilabity.

The sunflower husk is pref. initially ground to 0.1-1.5 mm size in a period 1.5-2 mins. before mixing with the other ingredients. A typical feed rate is 1-3 kg. per head per day.

Bogdanov, G.A., Gnoevoi, V.I., Makeev, A.G. et al. Bul. 30/15.8.78.1.6.76 as 366579 (3pp314)

CONS= ★ D13 45221B/24 ★SU -619-167

Oatmeal prodn. from oat flour - includes enzymic treatment of flour and water mixt. before dextrinisation

CONSERVE FRUIT DRY 18.02.77-SU-454481

(26.06.78) A23l-01/10

Oatmeal is made by addn. of water to oat flour, dextrinisation and drying.

The quality of the meal is improved as follows: be
dextrinisation the flour is fermented at 50-55°C for 3
120 min. The fermentation agents comprise an aq. e
of malted barley (10-20% wt. of flour), or Amylosubti
G10Kh (0.001-0.1% wt. of flour).

Gulyaev, V.N., Khovanskaya, S.S., Lemesheva, V.N
Bul. 30/15.8.78. 18.2.77 as 454481 (2pp835)

HAAR D13 42650W/26 =SU -62

**Purificn. of thermolabile cpds. like vanillin by distn.
superheated solvent vapour and condensing in same solvent**

HAARMANN & REIMER GMBH 06.11.74-DT-452568 (07.12.7
360977)

*E14 J01 (22.07.78) *BE-823-028 C07c-47/58 +C07c-4
C07c-87/60*

Thermolabile cpds. are purified by distillation in a su
heated solvent vapour such as (cyclo)hexane, (ethyl)be
zene, toluene or anisol, and condensing the charged v
by counter-current passage through the same solvent
-tained within a few degrees of its b.pt. under the con
ions, giving finally a sat. soln. of the cpd. Sepn. of th
cpd. is usually easily achieved by cooling the sat. soln
Yields up to 100% of very pure thermolabile cpds. with
covery of pure solvent can be achieved.

Bauer, K., Brandt, H.W., Schreter, J. Bul. 30/15.8
4.12.74 as 082684 (3pp)

MOMA= ★ D13 45480B/24 ★SU -620

**Non-alcoholic grape drink prepn. - includes addition of aq.-alc
extract of grape skins to improve taste**

MOSC MAGARACH WINE 17.02.77-SU-455118

(06.07.78) A23l-02/02

The grape drink contains grape juice, sugar, citric aci
CO_2 and water.

Both taste and food value are improved by using the
following formulation (wt.%): grape juice 15.5-20.2, su
6.8-8.9, citric acid 0.16-0.405, aq.-alcohol extract o
grape skins 3.0-5.0, CO_2 2.3-2.7, remainder water.

Mekhuzla, N.A., Shaituro, A.A., Shaituro, L.F. Bul.
25.8.78. 17.2.77 as 455118 (2pp835)

KDFO= ★ D13 45481B/24 ★SU -620-

**Tomato treatment for preservation - includes removal of s
coarse fibre and seeds before specified thermal treatment**

KRASND FOOD IND RES 07.02.77-SU-455068

(06.07.78) A23l-01/06 A23l-03

Tomatoes preservation includes crushing, removal of
seeds, skins and coarse fibre, after which the pulp is h
ed. Thick skinned tomatoes are treated, while maintai
product quality as follows: skins and fibre are removed
directly after crushing and seed removal. The tomato
te is finally heated to 100-125°C for 6 min. 45 sec.

Skorikova, Yu.G., Gavrilishina, L.I. Kharchenkova, O.
Bul. 31/25.8.78.7.2.77 as 455068 (2pp835)

WARN ★ D13 45645B/24 ★US 4156-

**Sugarless centre-filled chewing gum - contains gum, glycerol, c
water-miscible humectant**

WARNER-LAMBERT CO 02.02.78-US-874717

A97 (29.05.79) A23g-03/30

Sugarless centre-filled chewing gum has an outer chewi
gum shell enclosing a cavity filled with a sugarless liq.
and contains (in both the shell and the liq. fill) a compsn
contg. (a) 0.4-1 pt. of a natural or synthetic gum (I); (
50-84 pts. of glycerol (II) as humectant; and (c) 15-49.
pts. of another H_2O-miscible humectant (III).

(I) is carboxymethylcellulose, pectin, propylene glyc
alginates, agar or gum tragacanth. (III) is sorbitol soln
opt. contg. propylene glycol.

The sugarless gum may be extruded to a hollow rope
without hardening or crumbling; and the liq. fill is not
absorbed into the chewing gum shell. In addn., chewin
gum has prolonged shelf life and greater stability.

2.2.78 as 874717 (5pp478)

CARV D13 27713U/20 =US 4156-7

**Boiling/sterilizing method - of eg vegetables placed in preservi
jars/cans**

CARNAUD & FORGES BA 29.10.71-FR-039087

*(29.05.79) *NL7214-382 A23l-03/10*

hod of sterilising and/or cooking canned foods consists illing a can with food and a small amt. of water, apply- a non-sealing cover, boiling the water to drive out air m the can, sealing the cover in a steam atmosphere, ther heating the can to sterilise the food, and cooling can to produce a vacuum due to condensation of the steam.

The water pref. occupies 1-20% of the can vol. Cool- is pref. effected by water spray, and boiling by direct me heat. The further heating pref. occurs at 125-135° 27.3.74 as 455381 (+18.10.72-US-298608) (5pp1376)

DA ★ D13 45646B/24 ★US 4156-742

rn kernel snack food prepn. - by soaking dehulled corn in ohol, then frying

US SEC OF AGRICULTURE 23.05.78-US-908602

(29.05.79) A23b-09

ehulled whole cam kernels are treated with a lower alco- l, until 3-25 wt.% of the alcohol, based on dry wt. of e kernels, is absorbed. They are then deep fried in t or oil at 130-190°C until they float to the surface of the t.

The flavour, shape and surface texture of the corn are etained, but the prod. is softer than parched corn. 3.5.78 as 908602 (4pp955)

CHM/ ★ D13 45647B/24 ★US 4156-743

ontinuous production of milk chocolate - using alternately perating batch mixers which together produce continuous flow

SCHMITT A 10.03.76-US-665725

(29.05.79) A23g-01

Roasted finely ground cocoa kernel fragments, cocoa butter, lecithin, sugar and powdered milk are kneaded, rolled, homogenised and refined.

Initially the cocoa kernel fragments are continuously subjected to alternate batch mixing and the cocoabutter and powdered milk are added to the cocoa mass during the batch mixing. During the mixing of one batch an already mixed batch is fed to a thin layer refining apparatus. Subsequently cocoa butter, lecithin and sugar are added to the mass while continuously subjecting it to alternate batch homogenisation. The finished mass of one batch is continuously removed during the homogenisation of the next batch. 10.3.76 as 665725 (7pp295)

PILL ★ D13 45648B/24 ★US 4156-744

Fabricated potato prod. mfr. - includes drying step before shaping

PILLSBURY CO 08.09.77-US-831638 (15.04.76-US-677103)

(29.05.79) A23l-01/21

Cooked shaped potato prods. are prepd. by cooking potatoes until they can be mashed, either before or after peeling; subdividing the potato to give pieces of thickness below 1/4", partially drying the pieces to a solids content of 29-40 wt.%, and then shaping the material.

Used in the prodn. of fabricated chips, crips, scalloped potatoes, etc. Starch damage and pastiness in the product is reduced, and the flavour is better. The prod. does not have a mushy interior texture, or form a tough skin on the outside. 8.9.77 as 631638 (8pp955)

See Also

D16 J5 4055779 D23 J5 4055512 D23 J5 4055513
D23 J7 9012465 D23 US 4156662

D14: FOODSTUFF MACHINERY

SAND- ★ D14 44241B/24 ★DT 2845-359

Press for extracting juices and volatile oils from whole fruit - esp. from citrus fruit, consists of concentric cylinders which completely cover the fruit

W SANDERSON & SONS 01.06.78-IT-049659 (06.12.77-IT-052101)

P71 (07.06.79) B30b-09/04

The press consists of a first set of cylindrical parts, which fit telescopically inside one another with little radial play, and a second set of these elements which is mounted opposite the first set on the same centreline.

The fruit is mounted between the two sets of cylinders. A mechanism is provided which incorporates rollers and cams and which moves the cylinders in such a way that they engage with the whole surface of the fruit. 16.10.78 as 845359 (25pp199)

STEF- ★ D14 44436B/24 ★FR 2402-421

Spray freezing powder prodn. e.g. egg, from air injected fluid - in freezing chamber which vents air but collects prod. without diffusion

SOC FR TRANSPORT EN 07.09.77-FR-027113

(11.05.79) A23l-03/36

Cold air, or other suitable gas, is passed through a prim. circuit to freeze the prod. in a freezing chamber. Part of the wall of the freezing chamber is permeable to air but hot to the frozen prod.. A fraction of the air from the prim. circuit is compressed and employed in a high pressure, secondary circuit to spray-inject the prod. into the freezing chamber. Secondary circuit air is pref. passed through a cooling heat exchanger after compression and before spray-injection.

The permeable part of the freezing chamber wall is pref. made of very fine mesh screen, e.g. with a mesh size of about 20 to 30 microns. The freezing chamber pref. takes the form of a cylindrical drum rotating about a longitudinal axis inclined at an angle of between about 20° and 40° to the horizontal.

Used for spray freezing powders from fluids, partic. hole egg, eggwhite, egg yolk. Very rapid freezing can be achieved by accepting an extremely fine powder. This powder is retained in the freezing chamber and collected without diffusion difficulties. Air in closed circuits avoids prod. contamination. 7.9.77 as 027113 (11pp448).

EURO- ★ D14 44439B/24 ★FR 2402-471

Mixer for creams etc. having conventional mixing element - plus a disperser with a pumping action and planetary movement

EURO MACHINES 07.09.77-FR-027674

J02 (11.05.79) B01f-07/16 B01f-13/06

The mixer appts. comprises a closed chamber of two separable parts, the lower part forming the mixing tank and the upper part in which the mixers are mounted forming the mixer head. The mixer elements may include a conventional blade-type element but also includes at least one mixer/disperser element. This comprises a pump formed by a turbine rotor on the end of a shaft surrounded by a housing. The rotor turns within the housing and the arrangement of tubes associated with the housing is such that the liq. is sucked up from the bottom of the tank and pumped out near the top. Simultaneously with the rotation of the shaft the dispenser element is driven in a planetary motion around the tank.

The mixer may be used for a variety of duties including milks, creams and pastes.

The dispenser/mixer element can be fitted with various outlet tubes which facilitate the emptying and washing of the chamber. 7.9.77 as 027674(12pp1330).

MAKH/ ★ D14 45319B/24 ★SU -619-365

Conical casings for arrow-shaped confectionery - produced from foil by feeding between two conical mandrels rotating in opposite directions and with guide fixed in one mandrel groove

MAKHLITS G L 18.11.76-SU-421040

P72 (29.06.78) A23g-03 B31c-07/08

Device for making conical foil casings for packing articles e.g. confectionery of an "Arrow" shape, with the casing resembling the pointed end of the arrow, includes two drives on which conical mandrels of similar dimensions are

mounted and installed, so that they can rotate in opposite directions. Now construction is simplified and the possibility of producing the casings from circular material is guaranteed by adding a guide, one end of which is fastened into a groove of one of the mandrels, and the other end is disposed above the other mandrel with a gap relative to its working surface. This has a radius of curvature corresponding to the radius of curvature of this mandrel.
Makhlis, G.L., Pugach, V.E. Bul. 30/15.8.78. 18.11.76 as 421040 (3pp29)

CHUV= ★ D14 45482B/24 ★SU -620-260
Fruit and vegetables grading appts. - has interacting supports and forks with movable pins, to determine space into which the fruit can rest
CHUVASH AGRIC INST 16.09.76-SU-407033
P43 (07.07.78) A23n-15 B07b-13/06

Device for grading fruit and vegetables in both agriculture and the conserves ind., is similar to that claimed in Parent Certificate No. 515508, which consisted of feeding roller-conveyor, multibladed rotor, and traction chains pulling the calibrating units interacting with guides. Supports were attached to one of the chains and forks to the other, with each calibrating unit made as spring-loaded pins mounted in pairs. One of these could interact with the supports and the other with the forks.

Now calibration effectiveness is increased by placing two vertical partitions inside each of the forks, and allowing them to move relative to the teeth in the fork. The drive sprockets of the outer chain is fastened to the shaft by a bushing which can move in an axial direction and be fixed into a given position.
Khuzin, V.Kh. Bul. 31/25.8.78. 16.9.76 as 407033 Add to 515508 (3pp29)

UAGR= ★ D14 45485B/24 ★SU -620-268
Animal feed mixer - has mixing chamber with pins on internal surface, truncated conical beater and drum with hinged knives, on beater shaft
UKR AGRIC ELEC RES 10.03.77-SU-461908
(07.07.78) B01f-09/08

Animal feed mixer, for fodder prodn. from juicy and concentrated materials, has mixing chamber with pins on its internal surfaces and a beater positioned off-centre. This is made as a truncated cone, the narrow end pointing in the direction of the loading opening. The mixing process is intensified by mounting a drum on the loading opening end of the beater shaft. This drum bears hinge-connected knives, while the internal surfaces of the chamber surrounding the drum are made cellular. The raw materials are fed to the chamber on a conveyor. As the materials enter, a flow of air created by a fan causes layering. flexible vanes of the fan are also used to clean the lowe arm of the conveyor belt from adhering portions of material.
Deshko, V.I. Bul. 31/25.8.78. 10.3.77 as 461908 (3pp

SKAL/ ★ D14 45556B/24 ★US 4156-
Apparatus for refrigerating and cooking food - with valves to di single thermal exchange fluid through hot or cold reservoirs
SKALA S F 29.04.77-US-792455 (04.10.72-US-299294)
Q75 (29.05.79) F25b-13 F25b-29

Food is refrigerated in an oven where it is subsequently cooked. The oven includes a food processing compartment and a single enclosed chamber within the compartment. The enclosed chamber receives a single substan liquid thermal exchange fluid at hot and cold temps.

The food is placed in the compartment and the therma exchange fluid is cooled by a cold source separate from the oven. The cooled fluid is passed through the enclose chamber for a predetermined time to cool the food. The flow of cooling fluid is then stopped and the fluid is then heated to a hot oven temp. by a hot source separate fron the oven. The heated fluid is then passed through the chamber for a predetermined time to cook the food.

The appts. is used to store food at a low temp. until it is required to cook the food after which heat is applied within the same apparatus to either roast or bake the foo 29.4.77 as 792455 C.i.p. 3888303 (+4.10.72-US-299294) (6pp295)

GENM ★ D14 45566B/24 ★US 4156-4
Rotary valve feeding food treatment chamber - with two separa pocket areas with out of phase pockets
GENERAL MILLS INC 06.04.77-US-785140
(29.05.79) A23l-01/18

Food is processed in an appts. which includes an elongat treating chamber. The food is supplied from two separat sources and is fed to a continuously rotating device which has out of phase pockets for alternately transferring the food only from a single source at a time. The food is tra sferred during successively equal intervals of time between the equal intervals being equal to each other and of a duration considerably less than the equal intervals of time during which the food is delivered.

The appts. is used to introduce food material to an elongated treating chamber. The capacity of the treating chamber is increased. 6.4.77 as 785140 (11pp295)

D15 : WATER TREATMENT

DIDI D15 11910S/06 =DS 1961-562
Recycling and recovering rinsing water - from scowing workpieces for plating
DIDIER-WERKE AG 09.12.69-DT-961562
*M12 (07.06.79) *BE-754-457 +C23g-01/36*

In hot-tinning and hot-galvanizing processes a rinsing bath is inserted between a hydrochloric acid pickling bath and a fluxing bath contg. ammonium chloride. Rinsing liquid is circulated to a tank where acid taken over from the pickling bath is neutralised with a mixt. of ammonia and ammonium carbonate. The pH is adjusted to over 7(10) with this mixt. and the liquid passed to a separating tank. There iron hydroxide is removed and returned to the rinsing bath and liquid contg. ammonium chloride is passed to the fluxing bath. Fresh water as necessary is added to the rinsing bath.

The process is more economical as chemicals are recycled. 9.12.69 as 961562 (4pp068).

NEPT- D15 34299R/20 =DS 2005-052
Aeration basin for sewage treatment
NEPTUNE MICROFLOC (NEP -) 06.08.69-US-847978
*(07.06.79) *US3511-380 C02c-01/06*

An aeration basin for sewage has in the centre a submerged cylinder, pref. contg. a backflushable graduated filter bed, at the bottom of which the clean water is extd. The cylinder is surrounded by a concentric partition, open at the bottom. The space between is filled by closely packed steeply inclined tubes through which the fluid must rise. Most of the flocculated sludge is separated in the tubes and drops back into the basin to increase the biological purification effect.

This continuous recycling raises the sedimentation efficiency for solids. 4.2.70 as 005052 (6pp39).

DORO D15 82245R/44 =DS 2060-046
Sedimentation tank with pier supported - rotary rake structure
DORR OLIVER INC 08.12.69-US-883102
*J01 (07.06.79) *US3539-051 +C02c-01/34*

A circular settling basin for crude water has a central umn, surrounded by a sludge pit, and a vertical rotat- cage on which raking arms are attached. The influx hrough a pipe at the bottom of the hollow column; the flow in the basin on top has baffle plates which force a t of the fluid into a circular path. A second set of fle plates above the first directs the remainder into a cular path in the opposite direction.

This absorbs the kinetic energy of the inflowing fluid re efficiently and improves the settling performance of basin. 7.12.70 as 060046 (8pp39).

PP D15 65075X/35 =DS 2551-907

cculation reactor with fixed bridge - with rotating internal ucture for pptn treatment of industrial wastes

KRUPP F GMBH 19.11.75-DT-551907

*(07.06.79) *BE-840-559 B01d-21/04*

flocculation reactor for use in sewage treatment con sts of a round basin of concrete or steel, straddled by a ionary bridge which supports rotating outer and inner linders, immersed in the fluid. A separately rotated npeller is mounted above the inner cylinder. The outer linder carries raking blades on arms which push the cculated sludge to a central cone pit for discharge. The edimentation space, around the rotating cylinders defin- g the reaction space, includes a conventional baffle plate ickener.

This is a simple installation which guarantees trouble- ee sedimentation. 19.11.75 as 551907 (4pp39).

GRO- D15 05682Y/04 =DS 2639-770

orizontal cylinder water purifying reactor - has upper precipitator hamber separated from activation chamber by sloping horizontal artitions

AGROTECHNIKA NP 11.03.76-CS-001593 (03.09.75-CS-005999)

*(07.06.79) *BE-845-819 C02c-01/06*

packaged biological sewage treatment unit consists of a orizontal cylindrical tank with two inclined partitions at n inclined angle of 60-120°. They enclose between them settling space and leave outside them two activated ludge sections. Each of the latter has a separate aeration evice. The bottom of the converging settling space is itted with a system of baffle plates to suppress any cross irculation of the fluid. The sewage enters at one end of he bottom, and the sludge is extracted below a perforated late.

Such a packaged plant reduces mfg. costs and facilitates ransport and assembly. 3.9.76 as 639770 (14pp39).

UGIN D15 38506A/22 =DS 2754-171

Hardeners for aminoplast pastes and binders - prepd. from effluents from phthalic anhydride prodn. by catalytic oxidn.

PROD CHIM UGINE KUH 07.12.76-FR-036751

*A60 E19 (A21 A35 A41) (07.06.79) *BE-861-288 C08k-05/16 C08l-61/20*

A hardening agent for aminoplastic resins is prepd. from aq. waste material obtd. in the prepn. of phthalic anhydride by catalytic oxidation of o-xylene or naphthalene. The aq. waste, having a density at 30°C of 1,130-1,030g/cm^3 is neutralised with ammonia, an amine of formula $R_1R_2R_3N$ (where each of R_1, R_2 and R_3 are H or 1-6C alkyl) or a 4-5C cyclic amine to a pH of 4.5 - 5.4.

The alkyl gps. of the amine may contain phenoxy or alkoxy gps. and the cyclic amine may contain O and/or S atoms. The aq. waste may contain maleic and phthalic anhydrides, phthalide and sumaric, citric and benzoic acids. 6.12.77 as 754171 (7pp068).

SICK- ★ D15 44153B/24 ★DT 2753-216

Washing medium purification - by polyelectrolyte flocculation and multilayer filtration

O SICK KG 29.11.77-DT-753216

J01 Q39 (07.06.79) B01d-21/ B01d-23/10 B01d-57 B67c-01/04*

In a system for the separation of contaminants, dissolved in washing media, specially of organic acids, metal ion carbohydrates and cellulose in the washing effluent of bottle washing machines, the contaminants are first flocculated selectively by adding a high-molecule polyelectrolyte. The contaminants adhere to the polyelectrolyte which is separated in a second process stage by filtration and absorption.

simple and economical process to separate contaminants in a continuous operation. The activity of the treated washing medium is fully maintained. 29.11.77 as 753216 (12pp39)

LINM ★ D15 44165B/24 ★DT 2753-482

Oxygenation of stretches of water at predetermined depths - by ice blocks with hollow cavities containing liquefied gas

LINDE AG 01.12.77-DT-753482

(07.06.79) C02b-09 C02c-01/06

Oxygen or air enriched with oxygen is enclosed in blocks of ice, and these are put into water which it is desired to enrich in oxygen. The oxygen or oxygen enriched air is enclosed in the ice blocks in the liquid condition. The ice blocks are produced in cooperation with a plant for separating air into its constituents, and are charged with oxygen for transporting in refrigerated containers to the point where they are to be used. The nitrogen produced in the plant is used for freezing the ice blocks and cooling the refrigerated containers.

Used to introduce into water to be purified, the largest possible quantity of oxygen for the provision of nourishment for the small creatures living in it. The process may in particular be applied to the oxygenation of water heated by its use in cooling installations. 1.12.77 as 753482 (14pp1045)

BABW ★ D15 44173B/24 ★DT 2753-516

Processing of effluents from flue gas washing plants - by vaporising in part flow of hot tube gas branched off from the main stream

BABCOCK BSH AG 01.12.77-DT-753516

J01 (07.06.79) C02c-05

The effluents of flue gas scrubbing plants which are sprayed into and vapourised by an evaporator-cooler installed in the stream of flue gas, and from which the remaining salts are removed after drying, are processed in a part flow of flue gas branched off from the main stream.

The salts recovered by the vapourising process as dry residues together with the small amount of dust, are separated out in a fabric filter behind the evaporator-cooler.

System handles the effluents in such a way that a fully satisfactory cleaning is achieved without additional sources of energy being called upon. The salts recovered are separated dry in isolation from the fly and dust deposited in the electrofilter. 1.12.77 as 753516 (8pp1045)

ALFE- ★ D15 44218B/24 ★DT 2754-070

Sewage sludge treatment by digestion, pressing, drying, pelletising - using sewage gas as sole fuel

ALFELDER EISENWKE C 05.12.77-DT-754070

(07.06.79) C02c-01/14 C02c-03

Sewage sludge is treated by digestion in a digester, followed by a mechanical partial dewatering. The final stages include pelletising and drying. The sewage gas from the digestion tank is the only fuel required for the thermal drying and the heating of the digestion tank.

The result is an economical prodn. of a germfree manure, independent of any rise in the oil prices, because no extraneous source of heat is now needed. 5.12.77 as 754070 (9pp39)

GARH- ★ D15 44303B/24 ★DT 2852-372

Fluid additive metering system - by two tipping beakers requiring no electric power e.g. for adding sodium hypochlorite to drinking water

GARHIN SA 05.12.77-FR-036564

A88 J04 R26 (07.06.79) B01j-04/02 C02b-01 C02b-03/06 G05d-11/02

An automatic fluid metering device, e.g for the admixture of sodium hypochlorite to drinking water, includes a tipping device with two triangular beakers which are filled in turn by the water and tipped in alternate directions. The device is coupled to a tube with a pickup elbow and a delivery elbow to dip into an additive which is kept at constant level and to discharge it periodically into the water.

The device requires no electric power for operation. It allows an easy adjustment of the rate of admixture, can be produced at low cost and requires little maintenance. All parts are pref. made of PVC. 4.12.78 as 852372 (16pp39)

KEIL/ D15 33443B/18 =EP ---2-203
Water softening appliance - with plastics throwaway cartridge for ion exchanger resin sealed in sheet metal tank
KEIL W 25.11.77-DT-752581
*A91 J01 (13.06.79) *DS2752-581 C02b-01/70*
D/S: E(BE, CH, FR, GB, LU, NL, SW).

In a complete water desalination plant contg. a cylindrical pressure-resistant sheathed vessel (1) provided with a mixed bed of cationic and anionic exchanger resins between the fittings for water supply, (4), and water-discharge, (19), the mixed bed is placed in a shell (6) pervious to water on front-facing side and formed as a disposable container. Shell (6) can be removed from vessel (1) and is sealed against lateral leak flow.

The plant is used esp. for small scale use, e.g. in laboratories, hospitals and pharmacies.

The spent exchanger resins are easily and cheaply disposed of, e.g. by burning or use as plant fertilisers.

15.11.78 as 101369 (14pp200)
(G) ISR: FR1097951; FR2177450; FR1378835; US3771660 BE-699122.

TORA ★ D15 44345B/24 ★EP ---2-237
Device for separating solids from liquids - comprising a sloping apertured screen with liquid flow enhancing guides beneath it
TORAY IND INC 28.11.77-JA-141688
J01 (13.06.79) B01d-35/28 C02c-01/22
D/S: E(BE, DT, FR, GB, NL).

A device for separating solids from a carrier liquid comprises an apertured sloping screen down the upper surface of which the liquid/solid mixture runs. Secured to the underside of the screen are guide plates which enhance the flow of the liquid through the screen.

The plates depend in parallel fashion from the screen and the screen is preferably of the type comprising spaced parallel metal or plastics bars. In a preferred embodiment, the gap between the bars are kept clean by rotating brushes which are reciprocated across the undersurface of the screen.

The guide plates increase the rate of flow of the liquid along the underside of the screen and thus enhance the rate of liquid flow through the screen. Output is thus increased. The screen may be of use in separating the solid and liquid components of activated sludge.

24.11.78 as 101448 (29pp525).
(E) ISR: US3169111; FR2170814; FR1171902; FR2177942

DOWC ★ D15 44350B/24 ★EP ---2-254
N-Amino-methyl unsatd. carboxamide prodn. - by reacting unsatd. carboxamide, aldehyde and sec. amine in acidic medium, useful as monomer for cationic flocculants
DOW CHEMICAL CO 02.12.77-US-856704
A41 E16 (13.06.79) C07c-102 C07c-103/66 C08f-08/44
D/S: E(DT, GB, NL).

Prodn. of N-(aminomethyl)-α,β-ethylenically unsatd. cationic carboxamides (I) comprises reacting an α,β-unsatd. carboxamide (II) with a 1-3 C aldehyde and a sec. amine in a medium of pH < 7, esp. $\leqslant 3$.

Pref. the reaction mixt. is dissolved in aq. medium, then dispersed in an oil to give a water-in-oil emulsion.

Also new are (a) polymerisation of (I) to cationic carboxamide polymers (III) by free-radical addition at pH < 7, esp. in an emulsion; and (b) quaternisation of (I) at pH < 7.

(III), and their quaternised analogues, are flocculants for sewage treatment etc.

(I) and (III) are obtd. free of saturated impurities or gelled prods. and are odourless.

30.11.78 as 101482 (20pp1251).
(E) ISR: US2475846; DS1102157; US3349121; FR1251025; DS1111825; DT2441526.

CARO D15 35107B/18 =EP ---2-275
Hard, granular, activated carbon for water treatment - is prepd. from brown coal by dil. acid treatment, etc.
CARBORUNDUM CO 02.12.77-US-856881
*E36 J01 (13.06.79) *US4149-994 C01b-31/14*
D/S: E(BE, DT, FR, IT, NL).

Hard granular activated C is made by first granulati brown coal, mixing the granules with dil. aq. acid to reduce volatiles content and increase fixed C content then washing free of acid and drying to < 25 wt.% mo ture.

The granules are then ground to a fine powder, co pressed to shapes, these shapes reduced to granules which are devolatilized, without charring, by heating directly at temp. $>$ charring temp. in an O_2 - free at

The granules are then activated by heating at $>$ devolatilization temp. in an atmos. contg. gaseous activating agent.

Pref. the coal has ash content $\ngtr 5$, esp. < 5 wt.% (dry basis).

Esp. for (waste) water treatment.

Brown coal is cheaper than bituminous coal and no charring stage is needed. Prods. have abrasion no. $\ngtr$ and the overall yield is $\nless 20$, esp. $\nless 26$ wt.%.

1.12.78 as 101517 (52pp1251).
(E) ISR: US4083801; FR595400; DT635279; FR2294130
2 Journal References.

PERU ★ D15 44394B/24 ★EP ---
Ion exchange water purifying appts. - comprising separate be cation and anion exchange resins
PERMUTIT-BOBY LTD 07.10.78-GB-039714 (30.11.77-GB-049
(13.06.79) C02b-01/66
D/S: E(BE, DT, FR, GB, NL, SW).

Apparatus for purifying water includes separate beds cation and anion exchange resins through which the wa is passed. The cation bed is the last bed and the wate passed through it at a rate of 100 bed volumes per hou

Pref. there are three beds - a cation exchange resi bed, then an anion exchange resin bed, and finally anot cation exchange resin bed. Facilities are provided to generate each bed separately. A quoted cation exchan resin is steam scoured styrene DVB sulphonic acid re and a quoted anion exchange resin is a styrene DVB quaternary ammonium resin scoured with steam. The cation exchange resin may be regenerated with sulpho or hydrochloric acid, whilst the anion exchange resin be regenerated with aqueous sodium bicarbonate follo by aqueous sodium hydroxide.

A purity of down to 0.1 mg/l. is obtainable. Also si there are no beds of mixed cation and anion exchange resins, regeneration is a simple matter not involving a "mixed" bed.

28.11.78 as 300672 (22pp525).
(E) ISR: US3849306; US2999821; FR2207866; GB8499
1 Journal Reference.

NATR ★ D15 44408B/24 ★EP ---2
Liquid aerating device esp. for waste water - in which bubbles introduced into a diverging annular flow
NATIONAL RES DEV CORP 02.12.77-GB-050312
(13.06.79) B01f-03/04 B01f-13/02 C02b-01 C02c-01/12
D/S: E(BE, CH, DT, FR, IT, LU, NL, SW).

An aerating device includes a chamber having a liquid inlet at one end and a sloping wall at the other leading a narrow outlet. Aerating gas is introduced into the chamber at a point just above the outlet in a direction transverse to the flow through the chamber.

The device is located in a tank containing liquid to b treated, and the bubbles are swept through the outlet in the tank with flow of the bubbles towards the liquid inle

The device is of particular use in aerating waste wa and this is effected efficiently with a reduced energy consumption.

1.12.78 as 300711 (26pp525).
(E) ISR: GB1294466; FR1504576; OE335927; FR22323

KILC- ★ D15 44431B/24 ★EP ---2-
Cross-flow filtering appts. - has vertical stack of filtering di mounted on collecting tube into which filtrate is forced along spi paths induced by inlet tube
KILCHER-CHEMIE AG 01.12.77-CH-014689
J01 (13.06.79) B01d-13 B01d-31 B01d-53/22 C02b-01/82
D/S: E(BE, DT, FR, GB, LU, NL, SW).

ts, for contra-flow filtration has a cylindrical housing in which is disposed a concentric stack of disc filter-elements (4) provided with microporous filtering mem-nes and mounted concentrically on a filtrate collect-tube (5). Housing contains also inlet and outlet pipes), respectively, which are disposed parallel to the e (5) and provided with respective openings (8,9), one each filtering element (4). Arrangement of internal ts is such that the soln. to be filtered is forced by the e (6) to enter the elements (4) in parallel and tangenti-y so that a vortex flow is induced in the elements (4).

Used for ultra-filtration and reverse osmosis of liqu-or enrichment of low viscosity gases, esp. for sea wat-desalination.

11.78 as 810022 (14pp536)

ISR: US3410058; US3456805; US2797812; FR2332043; 3398833; US3459307; FR2203664; FR2153334; 1412837.

N- ★ D15 44449B/24 ★FR 2402-626

cculant for treating used water - is of fibrous cellulose dissolved acid

REAL TECH IND 13.09.77-FR-027614

F09 (11.05.79) C02b-01/20 C02c-05/02

fibrous cellulose, pref. α-cellulose, is dissolved in nc. sulphuric acetic, hydrochloric or nitric acid, ef. H_2SO_4. The cellulosic fibre length is pref. 3-7 mm. -250 g fibrous cellulose per litre H_2SO_4 is pref. used. hosphoric acid is also pref. added. 0.5-5 wt % of resi-ual black liquir from the mfr. of paper with bisulphite aste can also be added, as well as Al, Fe^{2+} and Fe^{3+} alts.

The dissolved fibrous cellulose is used in the treatment f used water together with a basic soln. to give a final H of about 7. The treated water is sepd. from the flocc-lated products. The method gives improved water qual-y at reduced installation and operating costs, without sing ion-exchange resins, etc.. 13.9.77 as 027614 10pp1331).

AOR ★ D15 44542B/24 ★J5 3123-382

eclaiming ion exchange material - in a multilayer ion exchanger vith layers of weak electrolyte and strong electrolyte

JAPAN ORGANO KK 04.04.77-JA-037670

J01 (27.10.78) B01j-01/09

A multilayer ion exchanger has an ion exchanging resin ayer of weak electrolyte (a) in the upper part and an ion exchanging resin layer of strong electrolyte, (b) in the lo-wer part and is reclaimed in such a way that the reclaim-ing agent is made to flow upward from under layer (b) and is exhausted out through the collector placed between the two layers (a, b) and thus the ion exchanging resin of str-ong electrolyte (b) is reclaimed; and the exhausted reclai-ming liquid is recollected and is made to flow downward from above layer (a) and is exhausted out through the coll-ector, and thus the ion exchanging resin of weak electrol-yte (a) is reclaimed. The collector is buried in the upper part of the lower layer, (b) which is just under the bound-ary between the two layers (a, b).

The lower resin layer (b) is prevented from flowing when it is reclaimed. And in the case of an anion tower for making pure water, silica is prevented from gelling in the lower part of the upper resin layer (a) or in the mixed layer between the two layers, and thus serious trouble due to the silica's gelling is prevented. 4.4.77 as 037670 (5pp80)

TORN ★ D15 44556B/24 ★J5 4021-053

Waste water treatment with gas in a column - using controlled conditions for automatic removal of adherent microorganisms

TORAY ENG KK 18.07.77-JA-086228

(16.02.79) C02c-01/02

Waste water is treated by the automatic removal of adherent microorganisms on a filler built in a treatment column from the bottom of which waste water to be treated and a gas, e.g. air or oxygen, are supplied under conditions such that $X > Y$.

$K = 3.0\ pO_2\ (a/d)\ G^{0.25}\ \exp.\ (-0.062/V)\ H$; $Y = CL$; $G > Go$; pO_2 = oxygen partial pressure of blowing gas (atm);

ative dia. of filler (cm); G = gas linear velocity (on vacant tower basis) (m/hr); V = space volume of packed tower (m^3); H height of packed tower (m); C = concn. of waste water to be treated (g-BOD/m^3); L = flow rate of waste water to be treated (on vacant tower basis) (m/hr) and Go = lowest gas linear velocity determined by theoretical oxygen demand (m/hr).

Method greatly enhances the utilisation efficiency of oxygen without supplying wasteful blowing gas, thus reducing power costs. 18.7.77 as 086228 (4pp117)

DORI- ★ D15 44659B/24 ★J5 4054-446

Effluent treating process - in which nutrients and opt. pH-adjusters are added to aeration vessel to ensure continued sludge activation

DORIKO KK 08.10.77-JA-121141

(28.04.79) C02c-01

In treating an effluent, e.g. a mixture of night soil, cooking waste water and other waste waters resulting from school, with microorganisms propagated by aeration with air or oxygen-rich gas in an aeration vessel, improvement comprises charging an adjusting agent comprising a nutrient component, e.g. molasses, rice bran, wheat powder, peat moss, ammonium sulphate, urea, bone powder, soy bean less, rapeseed less, and mixts. thereof, etc., a binder for the nutrient, e.g. zeolite and bentonite, etc. and if necessary a pH adjusting agent, e.g. lime, Na_2CO_3 and $NaHCO_3$, etc., into the aeration vessel. Mixt. is aerated so that a large number of microorganisms are propagated in the vessel under a pref. pH range without variation of pH value even with a lapse of time, and a sludge is maintained under activated state without any decrease in its amt. A balance between the amt. of the microorganisms and the amt. of the effluent is thus maintained under pref. value even where the effluent is introduced suddently into the vessel in which the amt. of the microorganisms is largely decreased after long period of summer vacation. 8.10.77 as 121141 (4pp34)

MITR ★ D15 44660B/24 ★J5 4054-447

Treating oil-contg. waste water - using a coarse granular layer of e.g. magnesium aluminate

MITSUBISHI RAYON KK 05.10.77-JA-119824

A97 (28.04.79) C02c-05/02

Oil droplets contained in waste water are trapped in a coarse granular layer and converted to a floating oil layer without blinding of the granular layer or any increase in pressure loss. The coarse granular layer is prepd. by kneading 80-60 pts. wt. inorganic material of large specific surface area, e.g. Mg aluminate, a mixt. of Mg aluminate and silica, iron oxide, iron hydroxide and iron oxy-hydroxide, etc. and 20-40 pts. wt. binder, e.g. alumina sol, cement, water glass, coal tar, pitch, PVAc, styrene-butadiene copolymer; etc.; forming the mixture into granules, e.g. by means of a screw-type extruder, etc. and subjecting them to a heat treatment to improve their strength.

The coarse graular layer obtd. exhibits excellent oil-collecting efficiency than that of activated charcoal or fibrous polypropylene, and is not destroyed by water. It exhibits low pressure loss and can be used for long periods of operation. 5.10.77 as 119824 (4pp34)

EBAI ★ D15 44661B/24 ★J5 4054-449

BOD removal, nitrification and denitrification of water - by flowing water up through fluidised bed of medium on which microorganisms are adsorbed

EBARA INFILCO KK 08.10.77-JA-120520

(28.04.79) C02c-01/02

In the biochemical BODremoval, nitrification and denitrification of (waste) water by passing the (waste) water upwardly through a fluidised bed of granular medium on which are adsorbed microorganisms, the improvement comprises initially passing the (waste) water downwardly through the fluidised bed for a pre-determined period at the initial operation step during a course of collecting the propagation of the microorganisms to accelerate the uniform adhesion of the microorganisms to the medium, followed by passing the water upwardly therethrou so as to be fluidised. 8.10.77 as 120520 (4pp34)

DORI- ★ D15 44662B/24 ★ J5 4054-450

Agent for adjusting conditions in microbiological effluent treatment - comprises nutrient affording component of sugars, pH adjusting agent e.g. lime and binder for nutrient e.g. zeolite

DORIKO KK 08.10.77-JA-121142

(28.04.79) C02c-05/02

The agent comprises (a) a nutrient-affording component composed mainly of sugars, e. g. molasses, etc., (b) a pH-adjusting agent, e. g. lime, Na_2CO_3 and $NaHCO_3$, etc. and (c) a binder for the nutrient component, e. g. zeolite and bentonite, etc.

The propagation of a large number of the microorganisms is accelerated without decrease in the amt. of the microorganisms even in such case that effluent contg. nutrient components, e. g. night soil, cooking effluent and other waste waters, etc., is not introduced into the aeration vessel over long period e. g. summer vacation, etc. 8. 10. 77 as 121142 (4pp34)

DORI- ★ D15 44663B/24 ★ J5 4054-451

Effluent, e.g. sewage, treatment in aeration vessel - using nutrient-affording additive composed of plant lees

DORIKO KK 08.10.77-JA-121143

(28.04.79) C02c-05/02

An adjusting agent for treatment of effluent, suitable for use in supplying nutrient sources to microorganisms contained in sludge in aeration vessel of school and maintaining the pH value under a suitable range so as to accelerate the propagation of a large number of microorganisms without any decrease in the amt. of sludge and its activity even in such case that effluents contg. nutrients, e. g. sewage, cooking effluent and other waste waters, etc. are not introduced into the aeration vessel over long period, e. g. by summer vacation, etc.

The adjusting agent comprises a nutrient-affording component having buffer activity, composed mainly of plant lees, e. g. rice bran, rapeseed lees, bean lees, soybean lees, etc., and a binder therefor, e. g. zolite and bentonite, etc. By use of the present adjusting agent, balance between the amt. of the microorganisms and the amt. of the effluent is maintained even when effluent is suddenly introduced into the aeration vessel after summer vacation. 8. 10. 77 as 121143 (4pp34)

CHIY ★ D15 44664B/24 ★ J5 4054-453

Microbiological waste water purificn. - using fine carrier particles, enabling microorganism concn. to be increased

CHIYODA CHEM ENG CO 08.10.77-JA-120517

(28.04.79) C02c-01/06

In treating waste waters with membranes of microorganisms, formed on the surfaces of carrier granules, e. g. diatomaceous earth, kaolin, bentonite, perlite, zeolite, ferrite, sand and activated charcoal, etc. suspended in water in a reaction vessel, the improvement comprises using as the carrier fine granules having the granular size of $\leq 100\ \mu$, passing the microorganisms adhered carrier outflowing together with the treated water through a sludge blanket layer formed by the settling of the carrier so as to be removed, followed by further gravity settling, the circulating a portion of the microorganisms adhered carrier in the sludge blanket layer between a reaction chamber and a settling separation chamber to maintain the activity of the microorganisms.

The concn. of the microorganisms is increased by a large amt. the microorganisms adhering rate is increased and at the same time the carrier granules are easily suspended in the water. 8. 10. 77 as 120517 (6pp34)

KIYO/ ★ D15 44716B/24 ★ J5 4054-961

Recycling waste material in form of liq., slurry or sludge - by treating with surfactants and e.g. an alcohol, adding quicklime and water, and forming hydroxide

KIYOSUE I 08.10.77-JA-121200

P35 (01.05.79) A62d-03 B01j-01

In recycling waste materials in the forms of liquid, slurry and sludge, the waste material is treated with surfactants and organic substances (such as alcohols) quick lime and chemical amt. of water are added and the reaction is carried out until the hydroxides of the waste are obtd. The obtd. dried powder is reused either for reclamation or industrial uses.

C. f. the conventional burning method, a quite large
of waste materials can be treated in a short time, as
as cost and the scale of the equipment are reduced, by
utilising heat energy from chemical reaction. The obt
prods. are treated to prevent from causing any polluti
thus can be used in any industrial uses. 8. 10. 77 as
121200 (2pp55)

MITO ★ D15 44724B/24 ★ J5 4054

Removing sulphide(s) in active carbon bath - which is kep
aerobic atmosphere by supplying pressurised air

MITSUBISHI HEAVY IND KK 07.10.77-JA-120678

E36 J01 (01.05.79) B01d-15 C02c-05/02

Method is improved by keeping the whole adsorbing bat
an aerobic atmos. by providing pressurised air to the
ive carbon adsorbing path.

This process is useful for treating waste water (sew
By keeping the whole bath in an aerobic atmos. H_2S pro
ced by sulphate-reducing bacteria can be changed into c
oidal sulphur, and S adhered to the active carbon can
washed and removed, thus the production of H_2S as well
clogging can be prevented. 7. 10. 77 as 120678 (3pp55)

JAOR ★ D15 44725B/24 ★ J5 4054-

Preventing leakage of undesirable ions into an ion exchanger - e
sodium and chlorine ions into water treated in conden
desalination equipment in nuclear power plants

JAPAN ORGANO KK 12.10.77-JA-121375

K06 (01.05.79) B01j-01/04

Cation and anion exchange resins are backwashed and se
in an ion exchange resin column, and one of them is reg
erated. A large part of the anion exchange resin is fed
to a separate column, while the rest on the anion exchar
resin is taken out together with a small amt. of cation e
hange resin. The other resin is then regenerated.

The small amts. of cation and anion exchange resins
are not used for the next water treatment, thus avoiding
pollution of the resins with a regenerating agent. 12. 10.
as 121375 (9pp26)

FUJI/ ★ D15 44726B/24 ★ J5 4054-

Alkaline calcium ion contg. water prodn. - using membrane-fr
appts. with single electrode immersed in water supply and suppli
with specified voltage

FUJIMOTO S 07.10.77-JA-121114

J03 (01.05.79) C02b-01/82 C25b-01/18

Process comprises immersing a single electrode in wat
and applying voltage of $>$ 200 Hz frequency. The appts.
has input terminals to connect with commercial power
source, transformer with prim. and sec. winding, singl
output terminal, electrode connected with the output ter
inal. Prim. winding of the transformer is connected be
ween the input terminals and one end of the prim. windin
is connected with the output terminal in series through h
impedance, discharge tube and the terminal.

Since only one electrode is used and there is no memb
rane in this appts., it is simple in structure amd may be
readily maintained. 7. 10. 77 as 121114 (2pp96)

KOBM ★ D15 44728B/24 ★ J5 4054-9

Operating tubular membrane separator - used in reverse osmo
and ultrafiltration of sea and waste water

KOBE STEEL KK 07.10.77-JA-121193

J01 (01.05.79) B01d-13

To perform smoothly both regular and washing operatio
without energy loosing for separation, the flow rate of th
liquid under treatment is increased during the washing o
eration, more than during the regular operation, to mak
smooth a flow of elastic cleaning balls such as sponge
balls moving along the surface of membranes such as se
-permeable membrane assembled in the separator, thus
rubbing off flock, and other deposits on the membrane.
7. 10. 77 as 121193 (7pp26)

KOBM ★ D15 44729B/24 ★ J5 4054-97

Washing a tubular membrane separator - for reverse osmosis an
ultrafiltration of sea water and waste water, using elastic bal
flowing inside the membrane

KOBE STEEL KK 07.10.77-JA-121194

J01 (01.05.79) B01d-13

washing is made using elastic balls to flow in tubular
nbranes (semi-permeable) arranged in parallel lines
ther with the liquid, thus rubbing off undesired depos-
n the surface of each membrane. To avoid clogging of
separator with the balls, reduce the energy required
washing, and improve the washing efficiency, the balls
as sponge balls are fed into only one of the membrane
s, while neither ball (nor liquid) flows in any of the
lines. Above operation is repeated in turn in the
r lines to clean all of them. 7. 10. 77 as 121194
26)

W ★ D15 44799B/24 ★J5 4055-091

onic polymer useful as coating, flocculant and in paper essing - comprises poly:amine, aldehyde cpd. and acrylamide , to which are added radical-generating agent and opt. another ylate cpd.

HOWA DENKO KK 11.10.77-JA-120876
A91 F09 G02 (A82 A97) (01.05.79) B01d-21/ C08f-299/02*

thod comprises adding radical-generating agent or ical-generating agent and acrylamide cpd. and/or ami- lkylacrylate cpd. to condensation product of polyamine . (A), aldehyde cpd. (B) and acrylamide cpd. (C) and ymerisating them to obtain colourless, transparent and cous cationic polymer solution.

High molecular cationic polymer has cationic properties ngeable at will; it is obtd. cheaply and is useful as coat- s, paper-processing agent and flocculant. 11. 10. 77 as 0876 (7pp78)

TR ★ D15 44896B/24 ★J5 4055-623

llow fibre shaped membrane prodn. - by using sheath-core type zzle and introducing a yarn spinning liq. contg. acrylonitrile ough sheath

MITSUBISHI RAYON KK 04.10.77-JA-119187
A88 F01 J01 (A14 A96) (02.05.79) D01d-05/24 D01f-06/18

prodn. of a hollow fibre shape membrane excellent in ter permeation and substance sepn. performance, a eath-core type nozzle is used, a yarn-spinning original quid of polymer including $> 50\%$ of acrylonitrile having scosity > 200 poise is introduced through the sheath hile air or an inert gas under slight pressure is supplied rough the core. The wet spinning operation is carried t to provide the membrane with a dense layer of thick- ess $< 5\ \mu$ on the inner surface and having substantially void of > 100Å.

Method easily produces a hollow fibre shape membrane itable to ultrafiltration of e. g. medical use which is rovided with a dense layer on the inner and not on the ter side. 4. 10. 77 as 119187 (4pp53)

SAH ★ D15 44980B/24 ★J5 4056-074

reating acidic waste soln. contg. ammonium sulphate - obtd. from etrochemical process, includes wet oxidn. in reactor of stainless eel

ASAHI CHEMICAL IND KK 13.10.77-JA-121837
H05 (04.05.79) B01j-01/20 C02c-05/04

cidic waste soln. contg. $(NH_4)_2SO_4$, exhausted from a etrochemical process is contacted with a gas contg. oxy- en (e. g. air) under high-temp. and -pressure, and then ubjected to wet oxidn.. An austenitic low carbon stainl- ss steel or austenitic series stabilised stainless steel ontg. Ni $> 12\%$ is used as the material for the high- emp. and -pressure appts. for the wet oxidn.

Process does not require pretreatment with NH_3.
3. 10. 77 as 121837 (4pp96)

JMIK- ★ D15 44981B/24 ★J5 4056-075

ea water desalination plant using solar energy to effect evapn. - omprises a heating pool, sealed container, an aspirator, a heater, nd a tank for the pure water

UMI KK 12.10.77-JA-122253
Q74 (04.05.79) B01d-03 F24j-03/02

An appts. for producing pure water from sea water, by heating and evaporating using solar energy, comprises a solar heating pool, a sealed container disposed above the surface of the liq. pool, a conduit for conducting water from a hotter region of the pond into the container, and a second conduit for returning the water from the container into the cold region of the pond.

A heater heats the water as it rises through the first conduit by convection, and an aspirator disposed within the vapour space of the container is connected to an inlet line through which plain water is drawn from a tank, and is pumped to the aspirator to draw the water vapour generated in the container. The water vapour is conveyed through an outlet line into the tank. (3pp47)

SENN- ★ D15 44984B/24 ★J5 4056-080

Automatic control system for ultrafiltration appts. - including inlet flow meter, vacuum valve, vacuum pump for drawing outlet liq. and outlet flow meter

SENNO SEISAKUSHO KK 12.10.77-JA-121493
J01 P32 P34 (04.05.79) A61f-01/24 A61m-01/03 B01d-13

An automatic flow control system for an ultrafiltration appts., i. e. a dialyser, comprises a flow meter for detecting the amount of inlet liquid into the dialyser and producing a timing signal for a predetermined amt. of liquid that passes into the dialyser , a vacuum valve for controlling the vacuum pressure of the inlet liquid as it flows from the detection means to the dialyser, a vacuum pump for drawing an outlet liq. from the dialyser, a second flow meter for detecting the amt. of the outlet liquid in response to the timing signal from the first flow meter, and a control means for controlling the vacuum valve and/or the vacuum pump in relation to the output signal from the second flow meter. 12. 10. 77 as 121493 (3pp47)

HITB ★ D15 44985B/24 ★J5 4056-081

Osmotic membrane tube e.g. for prodn. of fresh water from sea water - comprising tubular semipermeable membrane in outer tube having inner and outer walls of knitted glass rovings formed by filament winding

HITACHI CHEMICAL KK 12.10.77-JA-122205
J01 (04.05.79) B01d-13

An osmotic membrane tube used for sepn. of solvent from a soln., e. g. in waste liquid treatment, prodn. of fresh water from sea water, and various liquid refinement or enrichment processes, comprises a tubular semipermeable membrane placed in a porous support tube which includes an inner tube wall (1) of knitted glass rovings formed by a filament winding technique, and an outer tube wall of knitted glass rovings, also formed by filament winding, each roving in the outer tube wall being twisted more than the rovings in the inner tube wall.

The less-twisted inner tube rovings provide a smooth inner surface to the tube support, and the more-twisted outer rovings reduce undesired napping tendency of the outer surface of the tube. 12. 10. 77 as 122205 (3pp47)

NITL ★ D15 44986B/24 ★J5 4056-082

Removing ppte. from osmotic filter system - where cleaning liq. is mixed with air then high velocity liq.-air mixt. introduced into tube membrane units

NITTO ELECTRIC IND KK 12.10.77-JA-122862
(04.05.79) B01d-13

In an osmotic filtration system using a number of individual membrane tube units, the liquid inlet line is provided with a by-passing cleaning line including regulator valves, a check valve and a jet pump.

When the ppte has clogged the membrane tubes, the regulator valves are opened to conduct the material liq. from a tank or a cleaning liquid from a tank into the jet pump where air is drawn into the liq. stream in the form of bubbles, thus producing a high velocity liquid-air mixture which is introduced into the individual tube membrane units whereby the ppte. is carried away from the inner surface of the tubes. 12. 10. 77 as 122862 (4pp47)

NIDE ★ D15 44999B/24 ★J5 4056-100

Re-utilising ferrite obtd. from treatment of waste water - contg. heavy metal, by treating with heat in non oxidising atmos. adding hardenable material and kneading

NIPPON ELECTRIC KK 13.10.77-JA-123256
E31 (04.05.79) C01g-49

Heavy metals contained in a waste water are removed by either being taken in the lattices of the ferrite crystal or being adsorbed by the ferrite crystal particles is claimed. The ferrite obtained as a by-product is treated with heat under the non-oxidising atmos., then a viscous material (which can be hardened) is added and kneaded to make it electric wave absorbent or magnetic shield.

Specifically, the ferrite obtained from the process has particle size 600-1000Å, with ferromagnetism, and does not elute the heavy metals except in the acid solns. 13.10.77 as 123256 (3pp55)

KATA- ★ D15 45017B/24 ★J5 4056-245
Treating waste water of high COD content esp. sulphur components - by contact with metal oxide in acidic conditions and with a water soluble iron salt
KATAYAMA KAGAKU KOG 11.10.77-JA-122138
(07.05.79) C02c-05/04

A waste water having very high COD content, esp. sulphur components, e.g. Sx (x=2, 4, 6, 8, ····), $S_2O_3^{2-}$ and S^{2-} etc., resulted in contact with blast furnace slag, e.g. in land fill sites etc., is rapidly lowered in COD value by contacting with $\geq$ 1 metal oxide(s) from Fe_2O_3, Fe_3O_4 and MoO_3 under an acidic condition (pH $<$ 1.5). The treatment is pref. carried out under agitation, e.g. by mechanical means or by aeration.

The pH adjustment is carried-out with a mineral acid, e.g. HCl, HNO_3, H_2SO_4 and H_3PO_4, etc., and the amt. of the metal oxide is about 1,000 ppm w.r.t. the waste liquor having the COD value of about 1,000 to 1,300 ppm. The COD value is further lowered by use of a water-soluble iron salt, e.g. $FeCl_3$, etc. to precipitate the sulphur cpds. as iron sulphur. An oxidizing agent, e.g. H_2O_2 soln., hypochlorite etc. may be further used. 11.10.77 as 122138 (6pp34)

KOBM ★ D15 45018B/24 ★J5 4056-246
Decomposition of thiosulphate in liquor using sulphuric acid - obtd. from sulphur tri:oxide produced with recovery of sulphur and sulphate(s) and avoiding discharge of sulphur di:oxide
KOBE STEEL KK 12.10.77-JA-122746
E36 (07.05.79) C01b-17 C01d-05 C02c-05/02

In treating a thiosulphate-contg. liquor with an acidic liquor, e.g. H_2SO_4 to decompose the thiosulphate into elemental sulphur and sulphate, the improvement comprises treating the liquor with H_2SO_4 (94-97%) recircled from subsequent SO_3 to H_2SO_4 conversion step at a liq. temp. of 40-90°C and a pH of 0.5-3 to effect decomposition; treating steam contained in SO_2 generated in the acidic decomposing step with conc H_2SO_4 (94-97%) at 30-60°C to decrease humidity; oxidise the demoistured SO_2 to SO_3 in the presence of an oxidising catalyst; treating the SO_3 thus formed with the H_2SO_4 (94-97%) recirculated from the demoisturing step at 30-100°C to effect absorption and form H_2SO_4; and recovering elemental sulphur and sulphate from the liquor after neutralisation.

The process gives effective removal of thiosulphate by decomposition without discharge of SO_2 and without using a large amt. of H_2SO_4. 12.10.77 as 122746 (4pp34)

KOBM ★ D15 45019B/24 ★J5 4056-247
Removing sodium thiosulphate from liquors - in a three-stage process to produce elementary sulphur without discharging sulphur di:oxide
KOBE STEEL KK 12.10.77-JA-122747
E36 (07.05.79) C01b-17 C01d-05 C02c-05/02

In treating a thiosulphate-contg. liquor with an acidic liquor, e.g. H_2SO_4 to convert the thiosulphate into elementary sulphur and sulphates, the improvement comprises (a) decomposing the thiosulphate with H_2SO_4 in an acid decomposing vessel at 40-95°C and at pH below 3, to produce Na_2SO_4, sulphur, SO_2 and H_2O; (b) contacting SO_2 thus generated countercurrently with the thiosulphate-contg. liquor (thiosulphate concn. $>$ 0.3 g mol/litre) in absorbing tower at liquid temps. of $<$70°C and a pH (at the underpart of the tower) of 0.5-5 so as to be absorbed therein by the formation of polythionate: Na $S_2O_3(SO_2)x$ (x=1-1.5); (c) introducing the SO_2-absorbed thiosulphate soln. into a thermal reaction vessel wherein the polythionate is decomposed on reaction with $Na_2S_2O_3$ into sulphate and sulphur., and recovering the elementary sulphur and the sulphate thus formed, so that the thiosulphate is effectively removed from the system by use of a decreased amt. of H_2SO_4 without any discharge of SO_2 to be outside. 12.10.77 as 122747 (5pp34)

HITA ★ D15 45020B/24 ★J5 40
Carbon electrode for water purificn. - has electrodeposited c
of manganese di:oxide to prevent oxidn.
HITACHI KK 12.10.77-JA-121473
J03 (07.05.79) C02c-05/12 C25b-11/12

A carbon-made electrode suffering no oxidn. damag
under oxygen-generating potential in electrolysis of
is coated by electro-deposition with MnO_2. In an exa
0.1 mol/l of $MnSO_4$ soln. is electrolysed for 30 min.
1A/dm^2 by use of a carbon electrode as the anode an
Pt line as the cathode, so that MnO_2 is uniformly ele
deposited on the surface of the anode. The electric
tial of the anode was adjusted at 1.5V is S.C.E.

The MnO_2-coated carbon electrode is used as the
and a conventional carbon electrode is used as the ca
in electrodialysis of water in an electrodialysis vess
provided with three pairs of cation-anion exchanging
branes, and the electrodialysis of the water is carrie
under 8 volts and 1A/dm^2 so as to be purified, and th
anode is maintained stably at least for 10 hrs. withou
ffering any oxidative damage. When a conventional c
electrode is used as the anode, the carbon electrode
ers considerable damage after 2 hrs. 12.10.77 as 1
(2pp34)

CHIY ★ D15 45127B/24 ★J7 901
Solid-liq. sepn. in waste water treatment by activated s
process - achieved without use of sedimentation vessel
CHIYODA CHEM ENG CO 14.01.74-JA-006638
(18.05.79) B01d-23/02 C02c-01/06

In treatment of waste water by the activated sludge pr
ess, the improvement comprising providing a permea
layer made of sponge-like matter having continuous a
bubbles in the innerpart of an aeration vessel or at th
side wall thereof, and compressing repeatedly the su
of the penetrating layer to take-off directly treated wa
from the aeration vessel, so that the installation of se
mentation vessel is not necessary. 14.1.74 as 00663
B01d 23/02 (18.5.79) CHIYODA CHEM ENG CO (34pp)
(J5 0102172)

MINE/ D15 83826Y/47 =J7 901
Desalination appts. for sea water - using a freezing pro
employing LPG as cooling medium
MINEGISHI T 07.04.76-JA-039040
*(22.05.79) *J52122-261 +B01d-09/04 C02b-01/12*

The appts. employs a LPG as the cooling medium in t
freezing process. The LPG is introduced into the rea
chamber through an inlet port diposed at the top end o
chamber while the sea water is introduced through the
bottom opening.

The bottom conduit includes a pair of branching pip
one being connected to a plain water collection tank an
the other being connected to an enriched sea water tan
When the freezing is complete, the valve opens to discharge the enriched sea water from the reaction cham
to the tank and warm clean water is injected from spra
nozzles disposed in the top portion of the reaction cha
to clear the ice and the interior wall of the chamber of
residual gas water. A valve in the branching pipe con
-ed to the plain water tank is open. 7.4.76 as 039040
B01d 9/04 C02b 1/12 (22.5.79) MINEGISHI T (3pp)
J5 2122261)

NISH- D15 44478Y/25 =J7 9012
Multistage pulsation-type extraction column - contg vanes at
end for smooth directional flow during solvent extn. of metal cp
NISHIMURA-WATANABE 08.11.75-JA-134583
*J05 (22.05.79) *J52058-071 B01d-11/04*

In the multistage pulsation-type extn. column for solve
extraction process of heavy metal ions, mineral acids
organic acids etc. The extrn. column has guide vanes
both ends of a distance piece supporting a porous plate
produce rotating or reversing movement in the treated
liquid and to make good contact and prevent unevennes
pulsation in the tower for effective extraction.

The method can be used on an industrial scale. 8.1
as 134583 B01d 11/04(22.5.79) NISHIMURA WATANAB
(4pp)(J5 2058071)

D/ D15 36550W/22 = J7 9012-431

alyst for waste gas waste water purifn - contains transition al, alk earth metal, on clay mineral base

ATO T 16.01.73-JA-006578

*36 J01 (23.05.79) *J49094-591 +B01d-53/34 B01j-21/16 B01j-23/06 B01j-29/04*

e catalyst is made by mixing ⩾ 2 of Ti, Zr, V, Ta, Cr, , Mn, Fe, Co, Ni, Cu, Zn, Sn, and their cpds. with aline earth metals or their cpds., adding at least a y mineral (e.g. , allophane, mica, serpentine, chlor-, fluorite, kaolin, kalloysite, vermiculite), and firing resulting mixt. at ⩾ 1200°.

The catalyst has improved mech. strength, durability, d chem. resistance and is useful for purifn. of waste s contg. NO_x, S oxides, CO, H_2S, and hydrocarbons and so removal of heavy metals from waste water as well as dn. of COD and BOD.

In an example, a mixt. contg. $MgCO_3$ 1014, $CaCO_3$ 356, nCO_3 162, $CrCO_3$ 1870, and chloride 250g, was fired at 00-1300°, mixed with a carbonaceous material as catal-t support at a 1:9 ratio, and moulded to obtain catalyst ving tensile and compressive strengths of 274-379 and 50-3260 $kg/cm^2{}_1$ resp. with the catalyst, SO_2, NO_x, S, and CO were removed from hot waste gas (200°) at tes of 96.7-99.9, 94.8-99, 97.1-99.9, and 98.2-99.8%, sp. and also ⩾ 95.2% heavy metals (e.g. , Pb, Cd, Cu, n) from waste water. 16.1.73 as 006578 B01d 53/34, 01j 21/16, 23/06, 29/04-(23.5.79) KATO T (8pp 4 9094591)

CHA/ ★ D15 45193B/24 ★NL 7712-984

eatment of effluent water contg. organic residues - by cidification with phosphoric and nitric acids, addn. of an organic cid and neutralisation with lime to give sludge useful as fertiliser

SCHAFFENRATH M 25.11.77-NL-012984

E36 (E17) (29.05.79) C02c-05/02 C05f-07

reatment of (industrial) effluent water contg. organic omponents comprises adding (1) H_3PO_4 and opt. HNO_3 in n amt. of at least 0.25 1/1000 1 until a distinct or strong cid reaction is achieved and (2) an organic acid chosen rom formic acid, acetic acid, oxalic acid, lactic acid or erivs. of these. After mixing, the effluent is neutralised vith lime water or quicklime (CaO) and the resulting ppte. s sepd. from the purified liq. phase.

The process is suitable for treatment of effluents from vashing installations, the paint industry, slaughterhouses, he food industry, municipal waste water, etc. The sludge produced is non-gelatinous and is easily dewatered, so hat sepn. of the sludge from the purified water is easier and uses less energy than prior art processes. The sludge produced is useful as an artificial fertiliser. 25.11.77 as 012984 (10pp513).

ESMI- ★ D15 45196B/24 ★NL 7713-116

Ultra- or hyperfiltration unit - with membranes on both sides of open/ended porous support tubes and hollow flange for hanging pipes and removing filtrate

ESMIL BV 29.11.77-NL-013116

(31.05.79) B01d-13 B01d-31

An ultra- or hyperfiltration installation is equipped with filtration membranes applied to both the inner and outer walls of open ended porous support pipes which are mounted in a hollow flange within the pressurised vessel. The hollows in the flange coincide with interruptions in the membrane to allow the weak soln. to flow from within the walls of the tubes into the flange hollow and thence via interconnecting ducts to a discharge connection. The joint between membrane and flange is sealed above and below the flange hollow to prevent communication between the high and low concentration fluids.

The bolts holding the clamping assembly for the flanges together are pref. hollow to allow a forced circulation to be maintained through the tubes and from the upper to the lower side of the flanges within the pressure vessel. The seal between flange and membrane is pref. effected by means of elastic 'O' rings compressed by the flange clamping assembly after insertion of the tubes.

Since both sides of the support tubes are used for the filtration, the yield for a given size of vessel and number

tration unit. 29.11.77 as 013116 (12pp1370).

ELEC ★ D15 B/24 ★PT --68-548

Water purification system - subjects water to electro:oxidation followed after interval by electro-reduction of products appearing

ELECTRICITE DE FRANCE 28.09.77-FR-029148

*(25.05.79) C02c-00/** 13.9.78 as 068548

UKRV= ★ D15 45228B/24 ★SU -619-197

Separator for solids and liquid in suspensions - has container with vertical and sloping screens on which solids are precipitated and slide out of flow

UKRVODOKANALPROEKT 15.07.75-SU-156219

J01 (22.08.78) B01d-21

The proposed installation is used for processing suspension liquids, to separate the particles by precipitation, as used in mining installations for the by-product thickening of slurry tailings, subjected to preliminary flocculation during transportation from the concentration works to the slurry pumping stations, as well as in the clarification of water. The body has units to which the original liquid is fed and in which the residues are withdrawn and, in its upper section, there is a water-collecting container in the form of troughs with channels through which the clarified water is drawn off. The phase-separation quality is increased, due to the water intake spread-over being guaranteed, by fitting the troughs of the water-collecting container with vertical screens, forming sections, each of which is has a water-overflow and bottom screens which slope downwards in the direction the liquid is flowing. Evsyutin, R.V., Pildysh, M.V., Elyasberg, E.S. Bul. 30, 15.8.78. 15.7.75 as 156219 (3pp29)

AMSA ★ D15 45594B/24 ★US 4156-621

Recycling of dish washer rinse water - including through reverse osmosis unit for purification and deionisation

AMERICAN STERILISER CO 28.09.77-US-837320

P43 (29.05.79) B01d-13 B08b-03 B08b-09/04

Water from the rinse station of a dishwasher is stored in two heat insulated storage tanks each of which contains a heat exchanger. The water passes through the two storage tanks and to a reverse osmosis unit. The water is supplied to the reverse osmosis unit at a pressure of at least 400 psig.

A water mixer is positioned between the two storage tanks so that a controlled amt. of fresh make-up water can be added to the rinse water. The water mixer includes a temp. sensitive device for varying the amt. of make-up water added to control the temp. of the solution flowing to the reverse osmosis unit. The water passes from the reverse osmosis unit to an accumulator from where the water is returned to the rinse station via the heat exchangers in the two storage tanks.

The appts. conserves energy by the recycling of rinse water from a dishwasher. The apparatus produces sanitising rinsing without the use of chemical additives to produce a film-free and spot-free product. 28.9.77 as 837320 (7pp295)

ANDR/ ★ D15 45600B/24 ★US 4156-631

Domestic still for use with kettle - supported over kettle spout and discharging purified water

ANDREI W 05.07.77-US-812585

(29.05.79) B01d-03/02

A continuous still for use with a kettle producing steam is supported above the spout of the kettle. The still includes an enclosure into the base of which steam from the kettle is delivered. The upper end of the enclosure is closed and a condensing coil is supported at the top end of the enclosure. The coil is connected to circulating cooling water.

The condensate falls from the coil and is discharged from the enclosure. The enclosure in plan view is triangular and when supported is inclined forwardly so that one of the angles of the triangle forms a trough to collect the condensate. The still is designed for home use where a safe water supply is not available. 5.7.77 as 812585 (6pp295)

DEGM D15 05656V/04 #US 4156-644

Pulsed sedimentation separator - to remove suspended solids from liquid passed through settled slurry

DEGREMONT SA 30.03.73-FR-011523 (19.07.73-US-380732)

*(29.05.79) *BE-803-954 C02b-01/78*

Liquid contg. suspended waste material is decanted by forcing all the liquid through from the bottom to the top of a sludge bed in paths inclined to both the horizontal and vertical paths through flow direction controls positioned over the height of the bed. The rising liquid and the settling sludge concentrates in parallel currents in opposite inclined directions. The sludge has a tendency to agglomerate. The sludge bed is pulsated.

The rising liquid and settling sludge also pref. whirls in its parallel currents. The flow controls are pref. inclined and can be plates or tubes. 2. 12. 77 as 857194 (8pp1376)

DESA- ★ D15 45606B/24 ★US 4156-645

Potable water prodn. from sea water - by reverse osmosis in two stages

DESALINATION SYSTE 16.12.77-US-861271 (26.07.73-US-382909)

(29.05.79) B01d-13

A reverse osmosis process for obtaining water contg. < 2,000 ppm TDS from a feed contg. 28,000-40,000 ppm TDS comprises: (a) a first stage, in which a "loose" membrane with a membrane constant of $4x10^{-5}$ to $15x10^{-5}$ g/cm^2 sec. atmos. is used, the press. is 300-550 psi, and the flux rate is at least 6 gals per sq. ft. per day, to give an intermediate product contg. $^1/_4$-$^1/_2$ the TDS of the feed water; (b) a second stage employing a tight membrane, having constant $2x10^{-5}$ to $4x10^{-5} g/cm^2$ sec. atmos; and an operating press of 300-550 psi.

The process uses only moderate pressures, making construction of the appts. easier and cheaper. Membrane life is longer as compaction is reduced, and small leakage in the appts. can be tolerated. 16. 12. 77 as 861271 (6pp955)

USAT ★ D15 45607B/24 ★US 4156-646

Plutonium and americium removal from alkaline wastes - by absorption with sodium titanate powder

US DEPT OF ENERGY 16.06.78-US-916179

K07 (29.05.79) C02c-05/02

In the decontamination of plutonium reclamation facility salt wastes, in which the waste is first treated with NaOH to ppte. out Ca, Mg and Fe hydroxides leaving a supernatant liquid contg. >10 nCi/g (as α-radiation) of Pu and Am-241, the precipitate extracting 80-90% of the Pu and 99.9% of the Am from the waste, the supernatant liq. is contacted with sodium titanate powder to reduce the total Pu and Am-241 content of the liq. to $<10^{-3}$ nCi/g. The Na titanate powder is pref. sized from 40 mesh to 140 mesh.

The process is used for treating the wastes, e. g. from fuel element prodn. or reprocessing produced after the usual solvent extraction and dilution processes. The liquid produced is clean enough for disposal and the solids are readily concentratable for storage. 16. 6. 78 as 916179 (9pp909)

NIEU/ D15 79337Y/45 =US 4156-647

Removing impurities from aq. or non-aq. liquids - by treating with a solid purification medium in a reservoir with perforated walls contg. a filter medium

NIEUWENHUIS G J 31.03.77-US-782521 (03.05.76-US-682454)

*J01 (29.05.79) *BE-854-179 B01d-23/24*

Impurity is removed from a liq. by passing the liq. through a particulate, water insoluble material which removes the impurity by chemical reaction, ion exchange or adsorption, and then passing the liq. through an inert, particulate, finely divided filter. The filter is retained in openings in the vessel wall containing the water insoluble material. The inner surface of the vessel wall is repeatedly swept to prevent blocking of the filter.

The filter is pref. of diatomaceous earth of particle size 2-5 µ. Process is suitable for the removal of heavy metals. 31. 3. 77 as 782521 (7pp1376)

USNA ★ D15 45608B/24 ★US 415

Water treatment to remove suspended and colloidal solids - foam filter and gas injection

US SEC OF NAVY 30.05.78-US-910328

P41 (29.05.79) B01d-17 B03d-01

Suspended and colloidal contaminants are removed fro raw water by initially passing it through a multistage treatment to remove the suspended contaminants. Th sulting water is passed through foam to remove a port of the colloidal contaminants.

A gas is injected into the water which is pressurise for a time sufficient to allow the injected gas to dissol into soln. The water is depressurised to permit the di olved gas to bubble out of solution, the gas bubbles con tacting the remaining suspended and colloidal contamin to form aggregates which float on the surface of the wa to form a foam which is separated from the remainder the water.

The method is used to treat water to remove grit, s pended and colloidal solids of organic or inorganic mat microorganisms and surfactants. Specifically, it can treat brackish water, ground water or grey waste wate from laundry, shower and kitchen sources. The appara has a minimum of moving parts and uses a minimum of chemical additives. 30. 5. 78 as 910328 (7pp295)

BRTO D15 86907Y/49 =US 4156-

Injection of compressed gas into liq. - to improve soln. of the gas the liq. (NL 22.11.77)

BOC LTD 20.05.76-GB-020928

*J02 (29.05.79) *DT2722-202 +C02b-01/34*

Liq. is treated with a gas by pumping liquid through a conduit, pulsing bubbles of gas at a pressure > 50 psi in isolated slugs of liq. in the conduit to dissolve some of gas, and introducing the liq. stream contg. dissolved a undissolved gas bubbles into a main body of liq. under turbulent conditions. The undissolved bubbles are brok into smaller bubbles upon introduction which dissolve or are consumed by the liq.

The pressure of each gas pulse is pref. 50-250 psi. 19. 5. 77 as 798488 (4pp1376)

HYDR- ★ D15 45610B/24 ★US 4156-6

Self-cleaning filtration device - allows trouble free backflush of central cylindrical filter by forming successive chambers with moving plunger

HYDRO PLAN ENG LTD 16.06.77-IL-052332

J01 (29.05.79) B01d-25/16

The device comprises a cylindrical filter mounted in a casing with an inlet leading to the inside of the filter and an outlet leading to the inside of the filter and an outlet leading from an outlet zone defined by the casing and the filter. The filter is made up of an axial stack of annular support elements surrounded by a sleeve-like filter. A plunger is movable within the filter structure and include a pair of axially spaced sealing rings, such that sealing contact is maintained between them and successive skirt portions of the support elements, so that a backflow cham ber is defined. Backflow takes place from the outlet zone through the filter via the backflow chamber to a backflow outlet.

The device is simple and effective and the filter eleme ts can easily be replaced. Because the plunger only touch es the support elements it does not damage the filter slee ve. 16. 6. 78 as 916210 (7pp959)

USSI ★ D15 45614B/24 ★US 4156-65

Alkaline earth metal hydrosulphide soln. prepn. - by reaction o metal oxide or hydroxide with sulphur in water, useful in meta recovery from waste streams or water

US SEC OF INTERIOR 13.06.78-US-915104

E34 J01 M25 (29.05.79)

An aq. soln. having high hydrosulphide ion content is prepd. by reacting an (hydr)oxide of Ca, Ba or Sr with elemental S in aq. medium at 200-250 (pref. 220)°C and 210-560(320) psig.

The aq. solns. are potentially useful for e. g. recovering dissolved metals from metallurgical treatments or waste streams or treating waste water to remove contaminating metals by pptn. as metal sulphides. The process mple and economical, providing a cheap source of ble sulphide. 13. 6. 78 as 915104 (3pp91)

D15 83010X/45 = US 4156-693
methyl 3-trimethyl ammonio propyl imino trimethylenes -
cholesterolemics trimethyl propanaminium salt
ERCK & CO INC 23.04.75-US-570910 (01.04.77-US-783885)
*96 B04 F09 (A97) (29.05.79) *BE-841-005 C07c-85/06*

dn. of 3-[N'-(3-chloropropyl)-N'-methylamino]-N, N, rimethyl-1-propanaminium halide hydrohalide (I) comes reacting N, N, N-trimethyl-[3-(methylamino)]-1-panaminium halide with oxetane at 50-100°C to produce N'-(3-hydroxypropyl)-N'-methylamino]-N, N, N-trihyl-1-propanaminium halide, converting this to its rohalide and reacting this with thionyl chloride to form (I). Pref. the halide is the bromide and (I) is the chloride hydrobromide.

The monomers are polymerised to give a polymer having oral anticholesterolaemic activity. The polymers form salts with the acids of clofibrate and halofenate, the salts being useful in cardiovascular disease therapy. The polymers are also useful as antistatic agents and agents for coating paper to render it electroconductive. 1.4. 77 as 783885 Div. ex. 4016209 (10pp992)

See Also

D16 J5 4055778 D22 J5 4055724

D16: FERMENTATION INDUSTRY

MO ★ D16 44032B/24 ★ BE -872-547
ymatic determination of tri-glyceride(s) in serum - by hydrolysis
lipase, conversion to glycerol 1-phosphate, then di:hydroxy-
tone and redn. of NAD to NADH which reduces ferric to ferr
AMERICAN MONITOR CORP 07.12.77-US-858187
B04 R16 (06.06.79) G01n

e determn. of triglycerides in diological fluids by (a) ymatic hydrolysis of the triglycerides with a lipose; conversion of the product into glycerol-1-phosphate ng adenosine-triphosphate (ATP) and the enzyme glycer kinase (GK). (c) conversion of the glycerol-1-phosph- into dihydroxyacetone phosphate using the enzyme glyrol-phosphate dehydrogenase (GPDH) with concomitant duction of nicotinamide adenine dinucleotide (NAD) to e reduced form (NADH).

The method is characterised in that (d) the NADH form d is reacted with ferric iron to reduce it to ferrous iron d in that the reaction is effected by the intermediary of electron transfer agent, (e) the ferrous iron is combin- with an iron chelating to form a high intensity chromoore; and (f) the quantity of chromophore formed is meas ared to determine the quantity of triglycerides present in e sample.

Simple, accurate determination of triglycerides is obtd. hich is suitable for application to large populations and ay be used in preventative medicene. 6. 12. 78 as 872547 5pp395)

ALD- ★ D16 B/24 ★ BR 7801-164
ontinuous emulsifier for oily vaccines
CALDEIRARIA INOX 22.02.79-BR-001164
B04 C03 (29.05.79) C12k-01/10

GDA D16 35838R/20 = DS 1958-678
rowth of bacteria
CIE GEN AUTOMATISME 22.11.68-FR-174997
*A18 (07.06.79) *BE-741-827 + C12k-01/10*

vessel for the investigation of growth and physiology of acteria is made of transparent plastics, (polypropylene, olystyrene, polyvinyl). It has a first section which is pen at the top and forms a beaker. A partition with a lot at the bottom separates it from a second closed section. The total volume is under 1 cc , i.e. much less han required for the conventional Petri dishes and test ubes. A dry layer on the bottom consists of chemical ubstances, chosen from the groups of material useful for he growth observation of bacteria.

This requires no previous growth and saves 100-150ccm of growth medium. The throwaway plastic saves cleaning. 22. 11. 69 as 958678 (6pp39).

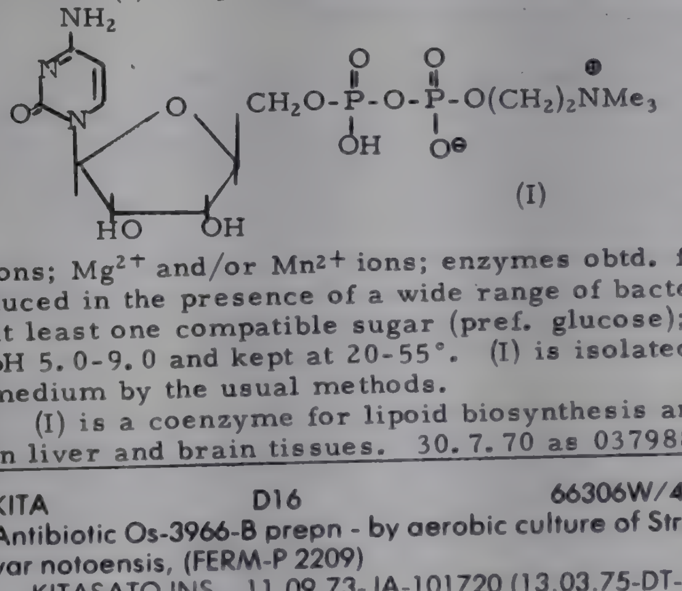
ROUS D16 86371R/46 = DS 2024-586
Alpha-and beta-glycoproteins from miciobes - with anti-
inflammatory and rapid non-spec-ific immunising p
ROUSSEL UCLAF 20.05.69-FR-016297
*B04 (07.06.79) *BE-750-641 + A61k-37/02 C07g-07*

Linear α-and β-glycoproteins are obtd. from bacterial cells. Prepn. of these proteins comprises propagation of Pneumococci, Streptococci, Neisseris, Staphylococci or Micrococci strains or Klebsiella pneumoniae or Haemophilus influenzae, or their mixts. in an aq. medium; the bacterial cells are disintegrated physically or by enzymolysis; the aq. extract is sepd. and evapd; the residue is freed from lipoids and dissolved in aq. soln; other proteins are pptd. and removed; the filtrate is then treated with a water-miscible solvent to ppt. the linear glycoproteins. The prods. are purified by dialysis and chromatography.

The prods. are used for immunisation, as anti-inflammatory or antigenic agents, and to stimulate the reticuloendothelial system. 20. 5. 70 as 024586 (7pp047).

KYOW D16 14392S/08 = DS 2037-988
Cytidine-5'-diphosphocholin (salts)
KYOWA HAKKO KOGYO 04.08.69-JA-060999
*B03 (07.06.79) *DT2037-988 + C07h-19/10*

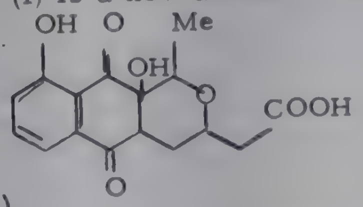
Process for prepn. of cytidine-5'-diphosphocholine of formula (I) comprises incubation of aq. solns. contg. choline and/or phosphorylcholine; cytidine, or cytidine-5'-mono-, di- or triphosphate; PO_4^{3-} ions; Mg^{2+} and/or Mn^{2+} ions; enzymes obtd. from or produced in the presence of a wide range of bacterial species; at least one compatible sugar (pref. glucose); adjusted to pH 5.0-9.0 and kept at 20-55°. (I) is isolated from the medium by the usual methods.


(I)

(I) is a coenzyme for lipoid biosynthesis and is required in liver and brain tissues. 30. 7. 70 as 037988 (5pp047).

KITA D16 66306W/40 #DS 2510-990
Antibiotic Os-3966-B prepn - by aerobic culture of Streptomyces rosa var notoensis, (FERM-P 2209)
KITASATO INS 11.09.73-JA-101720 (13.03.75-DT-510990)
*B04 (07.06.79) *J50052-288 A61k-31/71 C07d-311/92 C12d-09/16*

Nanaomycin B (or rosanomycin B or OS-3966-B) of formula (I) is a new antibiotic. Prepn. of (I) comprises propagation of Streptomyces rosa var. notoensis, FERM P 2209, at pH 6-10 and temps. 15-40°, and its recovery from the medium by the usual methods.


(I)

(I) is active against Gram positive organisms, esp. Staphylococcus aureus, and various fungal species, esp. Trichophytons and Mycoplasma gallisepticum. 13. 3. 75 as 510990 (9pp047).

KURE D16 43426Y/25 =DS 2655-844

Antioncogenic nitrogen-contg. polysaccharides - by extraction of Basidiomycetes with an aq. solvent at elevated temp. and press.

KUREHA KAGAKU KOGYO 18.12.75-JA-150114

*B04 (07.06.79) *BE-849-476 C07g-17*

Nitrogen-contg. polysaccharides with antitumour activity are obtd. by extracting basidiomycetes class fungi (esp. Coriolus strain of Polyporaceae family) using an aq. soln. at 1.8-20kg/cm^2 and 120-200°C. The prod. obtd. is purified until all substances of mol. wt. $<$ 5000 are eliminated. Typically extraction period is 5-360 mins., with pure water, dil. acid or alkali, aq. urea or amino acid. High prod. yield is achieved.

Polysaccharides inhibit sarevma -180 in mice, by i.p. and oral administration. They stimulate immune responses, with reduced side effects of chemical treatment, giving increased sensitivity to radiotherapy, combat diminution of physical resistance of patients after surgery or blood transfusion, and increase resistance to viral and bacterial infection. They also improve hepatic function and appetite, alleviate intestinal disorders and stimulate urinary secretion. 9.12.76 as 655844 (6pp913).

WEIS- ★ D16 44109B/24 ★DS 2757-144

Organic garbage composting plant - with sectional aerators at tank bottom separately controlled by timing mechanisms

GEBRUDER WEISS KG 21.12.77-DT-757144

(07.06.79) C05f-09/02

A plant to convert organic garbage to compost includes a vertical cylindrical tank which the garbage, sludge and other organic waste descends in counterflow to air. The aeration pipes are arranged in four separate sectors at the bottom with a 90° spacing. Four separate timing mechanism control the opening and closing of the valves for these aerators in a certain sequence as a function of the moisture content of the discharged compost. The discharge is effected by a revolving worm conveyor just above the aerators which discharges the compost through a central outlet.

This results in a simple, automatic and reliable control of the composting process. 21.12.77 as 757144 (6pp).

LUPO- ★ D16 44222B/24 ★DT 2754-187

Hop powder or pellets package resistant to damage - is evacuated and filled with inert gas at atmospheric pressure

LUPOFRESH ALLFELD & 06.12.77-DT-754187

(07.06.79) C12c-03/04

For the prodn. of a package contg. hop powder or hop pellets comprising an envelope from which the air has been evacuated and which is sealed gastight, the envelope filled with the product, after being evacuated and before being sealed, is filled with an inert gas raised near enough to atmospheric pressure.

A chamber receives the still open envelope contg. powder or pellets and envelope and chamber are evacuated so Before the envelope is sealed, the pressure is raised to correspond to that of the atmosphere by filling with an inert gas.

A package is provided in which the external pressure of the atmosphere does not compact the hop material, so that it is difficult to separate it during the brewing process. Creasing and damage of the envelope are also prevented so that oxygen cannot leak in and destroy the substances giving the bitter taste. 6.12.77 as 754187 (8pp1045)

GLAX ★ D16 44315B/24 ★DT 2852-596

Cephalosporin C isolation from fermentation broth - by successively passing over basic anion-exchange resin, strong cation-exchange resin, and weakly basic anion-exchange resin (BE 5.6.79)

GLAXO GROUP LTD 06.12.77-GB-050772

A91 B02 (07.06.79) A61k-31/54 C07d-501/28 C12d

In a new process for the recovery of cephalosporin C (I), (a) a (I)-contg. fermentation broth is contacted with an anion -exchange resin (consisting of a weakly basic resin in the form of the free base or of a salt with a weak acid, or a strongly basic resin in the form of a salt with a weak acid) in order to obtain a weakly acidic (I)-contg. percolate from which the anions of strong acids present in the broth have been removed; (b) the percolate is contacted with a strong cation-exchange resin, the cations contained in the soln being replaced by protons and (I) remaining in th -stantially deionized percolate; and (c) adsorbing (I) the percolate onto a weakly basic anion-exchange res

Use of ion-exchange resins in the indicated sequen gives improved sepn. from impurities. 5.12.78 as 85 (15pp280)

WELL ★ D16 44331B/24 ★EP ---

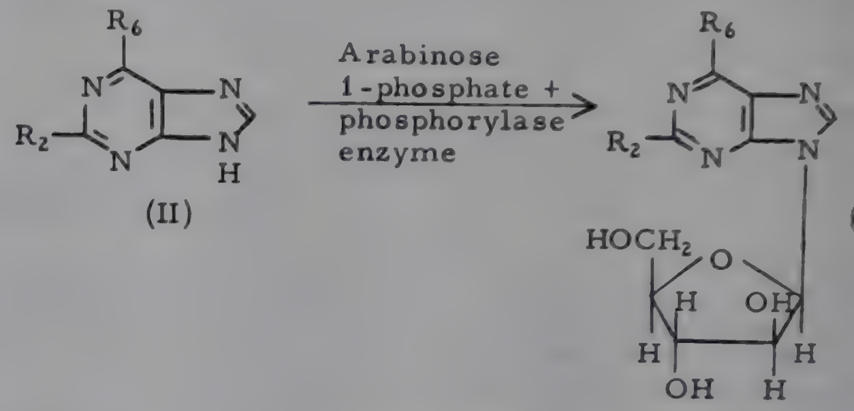
Prepn. of purine 9-beta-d-arabino-nucleoside(s) - by cou purine with arabinose 1-phosphate using phosphorylase enzym

WELLCOME FOUNDATION LTD 03.11.77-GB-045668

B02 (13.06.79) A61k-31/70 C07g-07/02 C07h-19/16 C12d-1

D/S: E(CH, DT, FR, GB).

Prepn. of purine 9β-D-arabinonucleosides of formula is as follows:



(either (a) R_2 is H or NH_2 and R_6 is H, halogen, OH, SH NH_2, 1-12C alkoxy, 1-12C alkylthio, aryl-(1-7C) alkylt or 1-12C alkylamino;

(b) R_2 is F and R_6 is NH_2; or

(c) R_2 is MeNH and R_6 is NH_2 or MeNH).

(I) are obtd. with the correct stereochemistry and t process is suitable for large scale prodn. (I) are know antivirals, antitumour agents and intermediates.

2.11.78 as 101295 (25pp1248).

(E) ISR: GB1159290; 1 Journal Reference.

MERI ★ D16 44422B/24 ★EP ---2-

Pneumococcal vaccine contg. capsular polysaccharide - obtd. highly purifying material from Streptococcus pneumoniae types

MERCK & CO INC 28.11.77-US-855491

B04 (13.06.79) A61k-39/02 C12d-13/04 C12k-05

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Vaccine effective against bacterial pneumonia comprise a physiological medium and a purified capsular polysaccharide of Streptococcus pneumoniae

(a) type 19 contg. 15-20% L-rhamnose, 5.5-8% D-glucos and 8-11% 2-acetamido-2-deoxy-D-mannose;

(b) type 23 contg. 31-38% L-rhamnose, 15-18% D-galact ose and 16-18% D-glucose;

(c) type 25 contg. 15-19% galactose, 15-19% glucosamin 7-9% galactosamine, 5-7% uronic acid, 2-4% fucose, 2-4 mannose and 1.8-4% D-glucose;

(d) type 72 contg. 27-32% glucosamine, 17-22% D-galact ose; 11.5-16.5% galactosamine, 5.5-8% L-rhamnose, 3- % fucose and 2.7-4.8% mannose; and/or

(e) type 73 contg. 29-34% glucosamine, 14-19% D-galact ose, 12-15% galactosamine, 2-5% mannose and 1.8-3.5% fucose.

The vaccines are effective against one or more types of Streptococcus pneumoniae as required.

16.11.78 as 400185 (77pp1248)

(E) ISR: 5 Journal References

INRG ★ D16 44434B/24 ★FR 2402-4

Arthrobotrys robusta 'antipolis' strain - a new nematophagic fung for pest control in mushroom crops

INST NAT RECH AGRON 09.09.77-FR-027329

C03 P13 (11.05.79) A01g-01/04 A01n-15 C05f-11/08 C12k-01/

The microorganism Arthrobotrys robusta 'Antipolis', esp. the strain Pasteur Institute no. 1158-77, is a new nematophagic species. Process for controlling growth of nematodes in myco culture, esp. of the mushroom Agaricus bisporus, comprises introducing this new micr organism into the growing compost. Compost contg. 1

% A. bisporus and 1 wt.% A. rubusta 'Antipolis' is also med.

The 'Antipolis' strain produces 4 times more capture ans than the type, so is a more successful predator. s compatible with compost ingredients and does not bit the growth of the mushrooms. 9.9.77 as 027329 pp1251).

E/ ★ D16 44468B/24 ★FR 2402-873

gent for early detection of cancer - made by ageing blood from ncer patient, then incubating

ENGELS J A 08.09.77-FR-027183

B04 J04 P31 R16 (11.05.79) A61b-10 G01n-33/16

reagent for detecting cancer is made by ageing, in a rile medium, blood from a subject with cancer (pref. an advanced state). The aged blood is then added to a lture medium, pref. a Pasteur broth, and allowed to nd at a controlled temp. until a ppte. forms. The ppte. removed and the liq., which contains the reagent, is llected. The blood is pref. aged for several months several years, and is then cultured for about 1 week 37°C. The reagent itself is claimed.

The reagent will detect most types of cancer in the rly stages. The method is reliable, rapid, simple and expensive. 8.9.77 as 027183 (7pp1251).

PE D16 04365Y/03 =GB 1547-373

owing photosynthetic plant cells or bacteria - by circulating an . suspension around a greenhouse etc.

BRITISH PETROLEUM LTD 20.03.75-GB-011649

*P13 (13.06.79) *FR2304-277 +C12b-01 C12k-09*

lant cells contg. chloroplasts or photosynthetic bacteria e grown in liq. suspension in water contg. required nutents by passing the suspension continuously between 2 paced sheets of transparent material forming part of a over to a horticultural area whilst charged or in contact ith a CO_2-contg. gas.

The spaced sheets form a wall or roof of a greenhouse nd contain a wavelength modifier increasing the waveength of light by a fluorescent effect. 15.3.76 (5pp982)

GPA- ★ D16 44507B/24 ★GB 2009-231

pt. branched alkanoic acids and salts - as malting additives to duce malting losses and colour formation etc.

AG PATENTS LTD 22.12.78-GB-049926 (03.10.77-GB-041028)

E17 (13.06.79) C12c-01

Process for malting cereal grain includes the step of treaing the grain with a 8-10C opt. branched alkanoic acid (I) or salt of (I)).

(I) pref. contains 8C, is esp. octanoic acid. (I) are partic. used as H_2O-soluble salts, esp. Na salts. (I) are sed at 50-500 pref. 100-250 mg/kg of grain, esp. together with a plant growth hormone, partic. with gibberellic acid (GA_3) (0.05-5 pref. 0.2-0.5mg/kg).

(I) are partic. useful as malting additives (opt. in conjunction with gebberellins), giving reduced malting losses, a redn. of total soluble N_2 and free amino N_2 levels, and reduced colour formation. 21.12.78 as 049926 (14pp478)

BAGS/ ★ D16 44533B/24 ★GB 2009-401

Incubation appts. for biological samples - has computer controlling circulation of sample containers through incubation chamber

BAGSAWE K D 20.12.78-GB-049370 (21.09.77-GB-039394)

B04 J04 R16 (13.06.79) B01l-07/02 G01n-33/16

Appts. for incubating samples in containers comprises a temp. controlled incubation chamber through which the containers are circulated along a closed path. Circulation of the containers is controlled by a computer which identifies a specified container at the end of a preselected time period, and brings it into register with a sample removal mechanism which removes the sample from the chamber.

Used for incubating biological samples for analysis, e.g. in radioimmunoassay or enzyme assay. Because of the continuous circulation of containers through the incubation chamber reagent can be added to a sample at an intermediate time during the incubation by suitably programming the computer. 20.12.78 as 049370 (13pp67)

MOTO/ ★ D16 44770B/24 ★J5 4055-05

Cellulose-contg. porous hydrophilic material - used as enzym carrier, ion exchange, dialysis or artificial kidney material

MOTOZATO Y 11.10.77-JA-120886

A11 B04 J01 (A88 A96) (01.05.79) C08l-01/10

Prepn. of cellulose-contg. porous hydrophilic structure, which water soluble cpd., of mol. wt. 5000-100000C can be impregnated, is characterised by (1) melting cellulose ester (A) and other ester (B) or dissolving cellulose ester (A) and other ester (B) in solvent, (2) forming the structure with the melt or the soln., (3) saponifying the structure and (4) if necessary, removing the components other than cellulose.

Conventional cellulose structure can allow the impregnation of water soluble cpds. having mol. wt. < 5000 exclusevely and its application has been restricted. By saponifying the cellulose structure cellulose-contg. porous hydrophilic structure can be prepd. Used as carrier for enzym and material for ion exchanger, dialysing material, artificial kidney, etc.

(A) is e.g. cellulose triacetate, cellulose tripropionate, cellulose acetate-butyrate, cellulose diacetate, cellulose dinitrate, cellulose monoacetate. (B) is e.g. ester of aga agarose, soluble starch, dextram, etc. synthetic high molecular ester such as polyvinylacetate, polyethylmethacrylate. 11.10.77 as 120886 (4pp5)

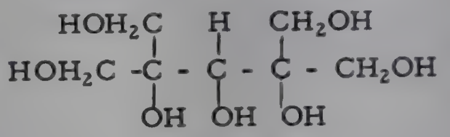
NAKA/ ★ D16 44837B/24 ★J5 4055-514

2,4-Bis(hydroxymethyl)-1,2,3,4,5-pentane:pent:ol - is an intermediate for hardenable resin, ester surfactants and carbon source for fermentation and is a metabolite inhibitor of carcinogens

NAKAJIMA M 04.10.77-JA-119809

A41 B05 E17 (02.05.79) C07h-01 C07h-03/02

New cpd. is of formula (I).



(I)

$$HOH_2C-C(CH_2OH)(OH)-CH(OH)-C(CH_2OH)(OH)-CH_2OH$$

(I) can be prepd. by reacting formaldehyde in a solvent (e.g. wate (m)ethanol, propanol and/or pyridine) in the presence of calcium hydroxide, adding a calcium ion-scavenger, and adjusting the mixt. to pH 10-13 with an alkali metal cpd. (e.g. KOH NaOH).

Pref. the reaction is effected at 40-80°C; and uses formaldehyde and calcium hydroxide in a molar ratio of 1:0. -0.5. Examples of the calcium ion-scavenger are oxalic acid, phosphoric acid, potassium dihydrogen phosphate, ethylene-diaminetetraacetic acid and nitrilotriacetic acid. Pref. the scavenger is used in an amt. of 1-1.2 fold equiv of the calcium hydroxide. 4.10.77 as 119809 (4pp33)

AGEN ★ D16 44942B/24 ★J5 4055-778

Microbiological decomposition of styrene oligomer - by contacting with Nocardia or Pseudomonas microorganism, culture medium or mycelium

AGENCY OF IND SCI TECH 05.10.77-JA-119816

A35 E14 (A13 D15) (04.05.79) B29c-29 C02c-01/02 C02c-05/10 C08j-11 C12k-01 C12k-03

Microbiological decomposition of styrene-oligomer (I) comprises contacting (I) with a microbial (II), which belongs to Nocardia or Pseudomonas and can decompose (I), culture medium of (II) or mycelium spd. from the culture medium.

(II) comprises Nocardia AT-S-3 or Pseudomonas AT-S-1. (II) can grow in a culture medium contg. 0.1-1.0% of (I) as carbon source, inorganic salts, vitamins and 100-200 ppm of yeast extract. (I) is added to the culture medium after homogenisation with 20-400 ppm of a surfactant. After incubation for 1-3 days at 30°C, 50% of the dimer of (I) and 7% of larger oligomers can be decomposed. 5.10.77 as 119816 (3pp42)

KIBU- ★ D16 44943B/24 ★J5 4055-779

Sepn. of effective components in dried distillers solubles - by clarifying the conc. solubles by centrifugation and filtration and drying the soln.

KIBUN KK 13.10.77-JA-121910

C03 P13 (D13) (04.05.79) A01g-01/04 A23k-01/06 A23l-01/28 C07g-17 C12b-03/12 C12c-11/08

Sepn. of effective components in distiller's solubles (I), comprises (i) clarification of the con. (I) by centrifugation or filtration and (ii) drying the clarified soln. by spray-drying, freeze-drying, hot-air drying, etc.

(I) is waste water in whisky-distn. and grain alcohol distillation. After the step, (ii), (I) may be purified by molecular sieve-treatment, ultrafiltration and/or reverse osmosis. The centrifugation should be carried out with the revolution speed > 50,000 G and 1-10% of filtration aid should be added to the concentrate of (I) in filtration. 13.10.77 as 121910 (11pp42)

KOWA ★ D16 44944B/24 ★ J5 4055-782

Stable urokinase soln. - contains sulphate of sugar e.g. dextran to maintain activity for extended period

KOWA KK 06.10.77-JA-120338

B04 (04.05.79) C07g-07/02

Stable urokinase soln. contains a sulphate of sugars (specifically claimed dextran-sulphate, chondroitinsulphate, heparin, xylansulphate, glucosesulphate).

Urokinase used clinically in treatment of thrombosis is very sensitive to moisture, humidity, pH and concentration, and is sometimes inactivated in the course of prodn. (partic during lyophilisation). Addn. of the sugar sulphate to the urokinase solution stabilises urokinase to maintain the activity over a long period of time.

The sugar sulphates include naturally occurring sulphates of polysaccharides, sulphates prepd. by esterification of natural or hydrolysed polysaccharides, and sulphates of mono- or oligo-saccharides which are administrable to humans; e.g. chondroitinsulphates A, B, C, D and E, heparin, keratosulphate, heparitinsulphate, agarose, agaropectin, fuccoidin, charonin sulphuric acid, etc. 6.10.77 as 120338 (3pp52)

TOAE ★ D16 44945B/24 ★ J5 4055-783

Purificn. of urokinase to give pyrogen free prod. - by contacting crude urokinase soln. with crosslinked agarose bound with carboxymethyl gp. and eluting adsorbed urokinase

TOA FOOD CHEMISTRY KK 07.10.77-JA-119985

B04 (04.05.79) C07g-07/02

Highly purified urokinase containing no pyrogen is produced from crude urokinase by contacting crude urokinase solution with a bridged agarose bound with carboxymethyl group, and eluting the adsorbed urokinase with a solution which has an electric conductivity higher than the crude urokinase solution does.

Urokinase industrially isolated from human urine usually contains pyrogen, thromboplastin-like substance, and blood group substance, and exhibits low specific activity (lower than 10,000 IU/mg, protein). This process provides an improved simple process for purifying crude urokinase on industrial scale. 7.10.77 as 119985 (4pp)

KYOW ★ D16 44946B/24 ★ J5 4055-785

Fermentative prodn. of malic dehydrogenase - using an organism of genus Alcaligenes or Klebsiella

KYOWA FERMENTATION KK 13.10.77-JA-121847

B04 (04.05.79) C12d-13/10

Method comprises cultivating a malic dehydrogenase-producing strain belonging to the Genus Alcaligenes or the Genus Klebsiella in a nutrient medium and recovering the accumulated malic dehydrogenase from the cultured broth. Examples of the malic dehydrogenase-producing microorganism include Alcaligenes faecalis ATCC 8756, Alcaligenes eutrophus ATCC 17697 and Klebsiella pneumoniae ATCC 8308. Addition of fumaric or malic acid to the medium at 0.5-1.5 w/v% may promote the prodn. of malic dehydrogenase.

Malic dehydrogenase is useful in the diagnostic determination of GOT level. 13.10.77 as 121847 (5pp16)

KANF ★ D16 44947B/24 ★ J5 4055-786

L-Glutamic acid fermentative prodn. - by aerobic cultivation of Corynebacterium, Arthrobacter Brevibacterium or Micrococcus microorganisms

KANEGAFUCHI CHEM KK 05.10.77-JA-120247

B05 E16 (04.05.79) C12d-13/06

Method comprises (1) aerobic cultivation of Corynebacterium, Arthrobacter, Brevibacterium or Micrococcus microorganisms in a culture medium contg. ≥ 1 of fat and fatty acid as carbon source and (2) recovery of the prod. in the culture medium.

The yield is high. Examples of the microorganis Cory. alkanolyticum (ATCC 21033), Cory petrophiliu (ATCC 19080), Cory. hydrocarboclastus (ATCC 1559 Arth. simplex (ATCC 15799), Arth. paraffineus (ATC 15591), Brev. ketoglutamicum (ATCC 15588) and Mic paraffinolyticus (ATCC 15582). Nitrogen source is u ammonia, ammonium carbonate, peptone, etc. Culti ion 20-40°C, e.g. (28-37°C) and at pH 4-9 e.g. (6-8) 5.10.77 as 120247 (3pp42)

KANF ★ D16 44948B/24 ★ J5 405

Enzymatic prodn. of D-N-carbamoyl:phenyl:glycine - fro phenyl: hydantoin in presence of salt of iron (II) cob manganese

KANEGAFUCHI CHEM KK 05.10.77-JA-120246

B05 E14 (04.05.79) C12d-13/06

In the prodn. of D-N-carbamoylphenylglycine (I) ster ecifically from 5-phenylhydantoin by treating the subs in an aq. medium of pH 7 to 10 with an enzyme produ by microorganisms, the improvement comprises car out the conversion in the presence of a salt of divalen cobalt or manganese to promote the conversion.

The enzyme to be used may be produced by Aeroba cloacae IAM 1221, Corynebacterium sepedonicum IFC Microbacterium flavum ATCC 10340, Mycobacterium matis ATCC 607, Pseudomonas chloraphis IFO 3904 a Pseudomona striata IFO 12996. In the improved meth 0.02-5 mM of the salts which are capable of releasing Co^{++} or Mn^{++} should be added to the reaction medium The enzymatic conversion is at 20 to 85°C, pref. at 3 40°C, in an aq. medium adjusted to pH 7 to 10. 5.10 as 120246 (7pp16)

TAJI/ ★ D16 44949B/24 ★ J5 405

Erythropoietin hormone prepn. - by culturing human renal c cells in nutrient medium

TAJIMA T 05.10.77-JA-119808

B04 (04.05.79) A61k-37/24 C12d-13

Prodn. of erythropoietin comprises culturing human cancer cells in a nutrient medium and recovering the accumulated erythropoietin from the cultured broth.

Erythropoietin is a hormone excreted by kidney an useful for treatment of anaemia, partic. caused by re insufficiency. The invention provides a process for t industrial prodn. of erythropoietin. 5.10.77 as 1198 (4pp16)

DNIN ★ D16 44950B/24 ★ J5 405

RNA prodn. by cultivation of Candida tropicalis - followed by with aq. soln. of sodium chloride at specified pH and temp.

DAINIPPON INK CHEM KK (DNII) 06.10.77-JA-119483

B04 (04.05.79) C12d-13/06

Prodn. of RNA comprises extracting Candida tropical C-1151 (Ferm-P 4173) with an aq. soln. of NaCl adju to pH 7.0-8.0 under heating at 70-80°C.

The cultivation of Candida tropicalis C-1151 is car out for 7-14 hours in a nutrient medium contg. molas (equivalent to 1-8% glucose), urea and ammonium pho ate at a CNP ratio of 100:5:1 to 100:20:5. The yeast i suspended in water at a ratio of 8-10%, 3-7% NaCl is ed, adjusted to pH 7-8 with NaOH and the mixture is stirred at 70 to 80°C for 30-200 minutes. After rem of the cells, the extract is treated with $CaCl_2$ and hyd chloric acid to ppte. crude RNA.

The yeast used is identificial to Candida tropicalis is considered to be a new strain because of its extrao ary high content of RNA, amounting to 15.1% in the d cells. This high level of RNA content makes the met economical. 6.10.77 as 119483 (6pp16)

MEIJ D16 44187V/24 = J7 901

SF 1293 antibiotic - isolated from culture medium of strepto hygroscopicus

MEIJI CONFECTIONARY 10.02.72-JA-013964

*B04 C03 (23.05.79) *J48082-028 + A01n-09*

SF 1293 is an effective fungicide and bactericide and no toxic effect on humans or domestic animals. In an mple, SF 1293, a surfactant (New Calgen NX 131), an diatomaceous earth (5, 20 and 75%, resp.) were mixe

erised, and suspended in water.
raying of this prepn. contg. 100 ppm SF 1293 on cult-
rice seedlings, which were subsequently inoculated
spores of Pellicularia sasakii, completely inhibited
ungus infection. 10.2.72 as 013964 A01n 9/00
5.79) MEIJI CONFECTIONARY CO (5pp)(J4 082028)

★ D16 45182B/24 ★J7 9012-539
e prepn. from oat husks - by heating in dil. acid and treating
alkaline substance, contacting insol. fraction with xylanase
acidolysing
JINOMOTO KK 29.12.70-JA-127453
3 (23.05.79) C13k-13

husks are heated in dil. acid soln. and then treated
alkaline substance or vice versa the insoluble fraction
ontacted with xylanase and the resulting soluble fract-
is subjected to acidolysis to give xylose.
lkali treatment is with 0.5 to 5% alkaline soln, such
lkali hydroxide and ammonia, at room temp. to 100°C
10 minutes to 2 hours using dil. acid soln. of $pH < 2$.
xylanase includes that originating from xylanase-pro-
ing microorganism such as strains belonging to the gen
Streptomyces, etc. After contact with the xylanase,
resultant is treated with acid at $pH < 2$ at 90 to 160C
1 to 10 hours.
By this method, xylose is obt. in high yield. 29.12.70
127453 C13k 13/00 (23.5.79) AJINOMOTO KK (2pp22)

IA D16 49289V/27 =J7 9012-553
partic acid prepn - from fumaric acid cpds and an immobilized
robe
TANABE SEIYAKU 26.06.72-JA-063900
*A97 B05 (23.05.79) *J49025-189 +C12d-01/02 C12d-13/10*

aspartic acid (I) is produced from NH_4-fumarate (II, or
naric acid (or its salt) and an inorganic NH_4-salt cataly
ed by an immobilized microbe, which has aspartase and
prepd. by polymn. of acrylamide (III) monomer, in the
esence of a metal ion.
In an example, cells of Escherichia coli ATCC 11303
re suspended in 40 ml saline. To the suspension (III)
5, N.N'-methylene-bis-III 0.4g, 5% β-(dimethylamino)-
opionitrile 5, and 2.5% $K_2S_2O_8$ 5 ml were added and
lymerised soln. (pH 8.5) contg. I 300 and $MnCl_2.4H_2O$
4 g in 2l was passed through a column (2 x 35 cm) pack-
d with the immobilised E. coli at a rate of 5 ml/hr at
°C. I was crytallised from the eluate at pH 2.8-3.0:I
s obtd. at 252.9g. 26.6.72 as 063900 C12d 1/02, 13/10
3.5.79) TANABE SEIYAKU CO LTD (4pp)(J4 9025189)

TU D16 73218W/44 =J7 9012-554
Substd. phenylserine prodn - from glycine and p-substd.
nzaldehyde using threonine aldolase
MITSUBISHI CHEM IND KK 02.10.73-JA-110699
*B05 E14 (23.05.79) *J50063-192 +C07c-101 C12d-13/06*

reptomyces griseus was cultured aerobically at 30° for
hr in a medium contg. threonine 0.2, glucose 0.5, pep-
ne 0.2, meat extract 0.2 and NaCl 0.2%. The cells hav-
g high theonine aldolase activity were collected and added
a medium contg. glycine 100, p-nitrobenzaldehyde 100
M. acetyltrimethylammoniumbromide 0.1%, and phosph-
e buffer (pH 8.5) 1 l. The reaction mixt. was incubated
30° for 24 hr. then worked up to obtain 3.1g L-β-(p-nit-
phenyl)serine. 2.10.73 as 110699 C12d 13/06; C07c
01/00 (23.5.79) MITSUBISHI CHEM IND KK (4pp)
5 0063192)

AKE D16 31499V/17 =J7 9012-555
ovel K-5610 antibiotic - prepd from mutant of Streptomyces cacaoi
KAKENKAGAKU 12.04.72-JA-036003
*B04 (23.05.79) *J48103-797 +A61k-31/35 C07d-407/14 C12d-09/14*

novel antibiotic, K-5610, was produced from a mutant
f Streptomyces cacaoi Wachsman & Henrich var. asoensis
0-52 (cf. J4 1015520), K-9 Met. (I, FERM-P 1148). K-
610 was produced in both cells and culture liq. It was
olourless, needle cryst. with m.p. of 158-160°, sol. in
Me_2CO, MeOH, EtOH, BuOH, pyridine, $CHCl_3$, C_6H_6, and
nsol. in H_2O. Novelty of K-5610 was also assumed by ele-mental analysis ($C_{33}H_{59}O_{10}Na$), sp. rotation ($/ a /_D^{25}$ =
+11.5°), UV and IR absorption and antibial spectra, colour reactions, heat stability (inactivated at pH 2-4, 50°, 2hr), and toxicity (LD_{50} against mice was 70 mg/kg by i.p. injection).

Precultured (I) was cultered with shaking at 30° for 5-7 days in a medium contg. sucrose 1.0, Me stearate 1.5, soybean powder 3.2 $NaNO_3$ 0.2, $FeCl_2$ 0.02, and K_2HPO_4 0.3%. K-5610 was pptd. from culture liq. adjusting the pH at 2 with 2 N HCl. The ppt. was suspended in 5 times the vol. of Me_2CO and extd. adjusting the pH at 7-8 with 2 N-NaOH. It was purified by successive extn. and dryness witn n-BuOH, Me_2CO, and MeOH. 12.4.72 as 036003 C21d 9/14, A61k 31/35, C07d 407/14 (23.5.79) KAKENKAGAKU CO LTD (5pp)(J4 8103797)

SANY D16 76312V/44 =J7 9012-556
Methylenomycin A and B antibiotics - from Streptomyces violaceoruber No. 2416 effective against gram neg. and pos bacteria
SANKYO KK 20.07.71-JA-053700
*B04 (23.05.79) *J48019-796 +A61k-35/74 C12d-09/14*

.A new strain, taxonomically identified as Streptomyces violaceoruber No. 2416, is isolated from soil and found to produce 2 new antibiotics called methylemycin A (I) and B (II), which are effective against gram-neg. and gram pos. bacteria esp. against Escherichia resistant to chloramphe-nicol and tetracycline and Proteus. A strain of actinomy-cetes producing the antibiotics is grown by ordinary aero-bic culture in a medium contg. appropriate nutrients for the prodn. of the antibiotics. I is colourless, fat sol., and the acidic crystal with m.p. 110°. II is a colourless neutral oil. They are both easily sol in $CHCl_3$, esters of HOAc, Me_2CO, alcs., hardly sol in CCl_4, ether, and H_2O, and insol in petroleum ether and n-hexane. Salts of I are sol. in water. R_f values on silica gel chromatog. were 0.5 for I and 0.72 for II. Mol. wt. estd. my mass spectrog. was 182 for I and 138 for II. Mol. formula was $C_9H_{10}O_4$ for I and $C_8H_{10}O_2$ for II. 19.7.71 as 053700 C12d 9/14; A61r 35/74 (23.5.79) SANKYO CO LTD (7pp) (J4 8019796)

MEIJ D16 08179V/05 =J7 9012-557
Antibioc SF-1306B - useful against fungi and yeast
MEIJI CONFECTIONERY 31.01.72-JA-010518
*B04 C03 (23.05.79) *J48080-795 +A61k-35/74 C12d-09/14*

Title antibiotic (I) is produced by Streptomyces echinatus SF-1306 together with SF-1306 (II). I and II which are produced in the culture liq. are separated from organisms by filtration. The filtrate is adsorbed on a cation exchange resin eluted with an appropriate acid, alkali or salt soln. I and II are septd. by chromatography on Sephadex G-10, cellulose , and silica gel.

I is a white powder, decompg. at 158-162°C sol. in H_2O, slight sol. in MeOH, dimethyl formamide, and insol. in EtOH, n-BuOH, $(Me)_2CO$, Et-sulphate, $CHCl_3$, C_6H_6, hexane, and $(Et)_2O$. It is positive in ninhydrin, pseudospositive in Molish, and negative in $FeCl_3$, Fehling, biuret and Anthrone's reactions and its mol. structure contains C, H, N and O atoms R_f values on silica gel and cellulose thin layer chromatography (n-BuOH: HOAc: H_2O = 4 : 1 : 1) are 0.16 and 0.22 resp.; values for II are 0.20 and 0.28. 31.1.72 as 010518 C12d 9/14, A01n 9/00, A61k 35/74 (23.5.79) MEIJI CONFECTIONERY CO (8pp)(J4 8080795)

DSOP D16 29956W/18 =SU -619-187
Lactobacillus bulgaricus compsns. - for treatment of gastritis, stomach and duodenal ulcers
DSO PHARMACHIM 11.10.73-BG-024712
*B04 (04.07.78) *NL7413-373 A61k-35/74*

Compsns. contg. (a) dried Lactobacillus, bulgaricus (I), (b) dried Soya bean medium, and (c) sucrose, are useful for treatment of gastritis, stomach, and duodenal ulcers, the compsns. having a rapid, sympathomimetic and therapeutic activity. Specif. to the compsns. L. bulgaricus LB-51 is incubated anaerobically at 35-42°C in a soya-bean broth for 18-24 hr., dried (pref. spray dried at 150-190°/70-85°) mixed with sugar, granulated and tabletted. Bogdanov, I.G. Bul. 30/15.8.78. 10.10.74 as 070915 (2pp)

BREA= ★ D16 45377B/24 ★SU -619-504

Microorganism cultivation automatic control system - with oxygen meters in air feed and spent gas discharge lines linked to comparator and controller

BREAD BAKING IND 11.11.76-SU-419628

(07.07.78) C12b-01/08

An automatic control system for microorganism cultivation, e.g. of yeast, in a medium containing molasses and nitrogenous salts includes an oxygen meter for air rising into the apparatus, a unit measuring the difference between this and the spent gas oxygen content, a unit determining the amt. of oxygen required for endogenous respiration and a comparator.

To improve biomass yield, oxygen meters are installed in the air feed and gas discharge lines and are connected to the difference unit, which is linked to one input of the second unit which also has an input from the incoming air oxygen meter and an output to the comparator which is connected to a programmed controller and with actuating mechanisms in the molasses and salts feed lines.

Use of the system in a yeast production plant raised yeast yield by 6%.

Tulyakova, T.V., Chervyakov, S.S., Kulakovskii, A.I. et al. Bul. 30/15.8.78. 11.11.76 as 419628 (3pp1358)

CHEC/ ★ D16 45378B/24 ★SU -619-505

Microorganism cultivation appts. - with aerator at conical base of central circulation pot, for improved agitation and output

CHECHURA A A 02.04.74-SU-011767

(07.07.78) C12b-01/10

Apparatus for cultivating e.g. feed yeast comprises a tank holding concentric diffusers which are spaced from bottom and cover, aerators between the diffusers and a central circulation pot. To improve agitation over the whole volume of the tank and thus increase output, the lower part of the pot has a downwardly converging guide cone and an aerator of similar design to those between the diffusers, this eliminating any weakening of agitation towards the tank centre.

Chechura, A.A., Rudevich, G.A., Dorosinskii, L.B. et al. Bul. 30/15.8.78. 2.4.74 as 011767 (2pp1358)

PROT= ★ D16 45379B/24 ★SU -619-506

Growth stimulant for culturing microorganisms - comprises a suspension of disintegrated auxoautotrophic cells cultured on methanol and used with methanol-contg. nutrient media

PROTEIN BIOSYNTH 23.02.77-SU-456299

(07.07.78) C12b-03/14 C12c-11/08

Microorganisms, esp. yeasts, are grown in better yields at lower cost in a nutrient medium contg. methanol as C source and a suspen. of disintegrated auxoautotrophic bacterial cells cultured on methanol, as growth stimulant. The nutrient medium also includes an N source, mineral salts and trace elements. In a typical medium, the growth stimulant suspn. is added in an amt. 0.1-0.5 vol.%. Yeasts such as methylotrophic forms of Candida, Hansenula, Pichia etc. yeasts are cultured on the medium pref. at 15°-40°C, and pH 3-8, esp. 25°-30°C and pH 4.5-7.0.

Fisher, P.N., Kalunyants, N.P., Dikanskaya, E.M. et al Bul. 30/15.8.78. 23.2.77 as 456299 (2pp314)

PETR ★ D16 45380B/24 ★SU -619-507

Recovery of microorganisms from hydrocarbon contg. media - by adding nonionic or cationic surfactant followed by a non-polar polymer

VEB PETROCHEM COM S 11.04.75-DL-185380

A97 H04 (06.07.78) C12c-11/24

Micorganisms grown on hydrocarbon-contg. media are recovered by adding a surfactant followed by contacting the resulting emulsion with a non-polar polymer. The use of the polymer provides a greater degree of recovery. A prefd. polymer is PTFE or polyethylene. The pH of the culture liq. is pref. 1-10, esp. 3-7 and the method is esp. used for recovering yeasts or bacteria.

The surfactant may be non-ionic (e.g. a propylene oxide-ethylene oxide copolymer) or may be cationic, e.g. a copolymer of butylene-glycol and formal. It is added in typical amts. of 0.05-2.0 g/kg., esp. 0.1-1.0 g./kg. at 0°-100°C, esp. 20°-80°C. In a typical method, the resulting mixt. is then heated to pref. 120°-150°C whilst stirring with a 'Teflon' (RTM) stirrer. The emuls
integrates and the required prod. phase may be rec
Koniechin, B., Bek, D., Pikert, H. et al. Bul. 30
15.8.78. 8.4.76 as 343909 (3pp314)

SHMI/ ★ D16 45381B/24 ★SU

**Polynucleotide(s) prodn. from ribonucleoside-5 di:phos
using Escherichia Coli culture contg. protein hydrolysate,
metal ions, glucose, glutathione and acyclic di:amino-ca
acid**

SHMITE I A 07.12.76-SU-427997

B04 (07.07.78) C12d-13/06

Polynucleotides having polyribonucleotide-phosphor
activity, are obtd. by polymerising ribonucleoside-
diphosphate using an Escherichia coli culture in a n
medium contg. a protein hydrolysate, divalent meta
a mixt. of glucose and glutathione and an acyclic di
monocarboxylic acid in a ratio of aminoacid to nutr
medium of 1:400-500. The culture is then incubate
covered and the prod. purified. The nutrient mediu
itives increase the degree of polymsn. and intensify
process.

In a prefd. method, glucose and glutathione are
in a ratio of 10:1. The acyclic diaminomonocarbox
is pref. lysine or arginine, or a 1:1 mixt. of these.

Shmite, I.A., Gravite, D.E., Kaula, V.P. et al. I
15.8.78. 7.12.76 as 427997 (2pp314)

GOMI= ★ D16 45382B/24 ★SU

**Deoxyribonucleic acid prodn. from diphtheric Corynebo
includes producing a biomass and ageing it in a buffe
trypsin**

GORK MICROBIOL EPID 28.03.77-SU-469453

B04 (03.07.78) C12d-13/06

Desoxyribonucleic acid is obtd. by culturing microo
isms in a nutrient medium and washing and suspend
resulting biomass in tris-(hydroxylmethyl)-aminom
buffer at the microorganism growth temp. in the pr
of trypsin. The suspn. is then aged for 2 hrs. at 3
37°C, disintegrated by freezing, suspended again ir
fer, de-proteinised with fresh-distilled 50-70% ph
soln. and finally the prod. is recovered and purifie
method enables desoxyribonucleic acid to be obtd. f
ptheric corynin-bacteria. In a prefd. method, the
suspn. of the biomass is carried out at a biomass t
ratio of 1:4.

Levanova, G.F., Evsikova, I.P. Bul. 30/15.8.78.
28.3.77 as 469453 (2pp314)

MOFO= ★ D16 45383B/24 ★SU

**Endomycopsis bacterial strain - is used as a prod
glucoamylase**

MOSC FOOD IND TECH (AMMI=) 03.01.77-SU-440406

(03.07.78) C12d-13/10

Bacterial strain Endomycopsis sp. AB-192 is a pro
of glucoamylase. Cell size on a 3-day culture on wo
is (4.5-7.8) x (5.5-17.0) μ. The cells are oval and
ed or kidney-shaped. Circular colonies are formed
are convex and fluffy in appearance with uniform ed
having a pale grey colour. On a liq. wort both a su
film and a heavy suspn. are formed.

The strain is aerobic and grows at 18°-37°C, pr
30°C. Gelatin is not liquefied, milk is not coagulate
peptonised and cell tissue is not decomposed. Star
trin, maltose, saccharose, glucose and glycerine a
assimilated; xylose is not assimilated. The strain
not utilise ammonium salts or reduce nitrates to ni

In an example, the glucoamylase activity of a fer
under laboratory conditions is 25-32 units/ml. and
units/ml. for industrial prodn.

Gracheva, I.M., Afanaseva, V.P., Burd, G.I. et
Bul. 30/15.8.78. 3.1.77 as 440406 (2pp314)

LERE= ★ D16 45384B/24 ★SU

**Citric acid biosynthesis automatic control - by setting
solution input according to biomass concentration w
correction**

LENGD REFRIG IND (LEFO=) 21.02.77-SU-457205

E17 (03.07.78) C12b-01/08 C12k-01/10

A method for automatically controlling continuous c s, involves regulating the supply of nutrient soln. in ndence on its consumption and level in the fermenter, measuring the concentration of biomass and soln. pH. o improve process efficiency by creating optimum itions, the setting for input of soln. is determined biomass concentration with a correction for pH, and tion level is regulated by changing the air supply to nented soln. to be discharged.

he method stabilises temp. and soln. level, and mains optimum biomass concentration and pH, to increase d per unit volume and minimise consumption of molass nutrient medium. In laboratory tests, citric acid yield raised by 10-15% and the content of extraneous acids uced by 10-12%.

kin, V.P., Kovalev, V.E. Bul. 30/15.8.78. 21.2.77 457205 (3pp1358)

M= ★ D16 45463B/24 ★SU -619-855

orimetric determination of fusel oil in potable spirit - using para-nethylamino-benzaldehyde and potassium di:chromate as our standard

FERMENTATION RES 10.03.77-SU-461847

R16 (30.06.78) G01n-33/14

e fusel oil content of spirits, e.g. vodka, is determined lorimetrically using a conc. H_2SO_4 soln. of p-dimethyl-inobenzaldehyde (I).

Higher accuracy and a simpler procedure are attained follows: the test sample is diluted to 40% vol in streng- and $K_2Cr_2O_7$ is employed as a colour comparison re-ent. The fusel oil content is calculated from the formula = 75.5D-6.42, where C = fusel oil conc. (mg/l), D = opt cal density.

khlyadeva, A.P., Polygalina, G.V., Klimenko, N.T. l. 30/15.8.78. 10.3.77 as 461847 (2pp835)

RM= ★ D16 45464B/24 ★SU -619-856

imating the saccharifying capacity of amylolytic enzyme - by larimetric measurement of sugar content in a sample before and ter fermentative hydrolysis

FERMENTATION RES 16.07.77-SU-463868

R16 (30.06.78) G01n-33/14

he saccharifying capacity of amylolytic ferments is meas-red by subjecting a sample to a fermentative hydrolysis, nactivating the ferment with HCl, pptg. the proteins, clar ifying the soln. and estimating sugar formation by the olarimetric method at 400-450 nm.

The sugar formation is also similarly estimated in the ample before the fermentative hydrolysis and the amt. of ugar is then calculated using the relation:

$$OS_p = \frac{(K. \Delta P+0.0104). 1000(100)}{n (n')}$$

, where OSp in the sacc-arifying capacity; K is an experimental coefft. and is 0.0838 or 0.0777; n(n') is the amt. of sample used (in mg. or mls.); 1000 (100) is the conversion coefft. from mg. to g. per 100mls. of liq. prod.; and ΔP is difference in opti-cal rotation between the two measurements. The method has very high accuracy.

Cherednichenko, V.S., Rukhlyadeva, A.P. Bul. 30/ 15.8.78. 16.7.77 as 463868 (3pp314)

ERN= ★ D16 45466B/24 ★SU -619-858

Determining infection in bile duct - using e.g. desoxy-cholic and cholic acid cpds. to differentiate bile duct staphylococcus from other sources

TERNOPOL MEDICINE 10.11.76-SU-419962

B04 J04 R16 (03.07.78) G01n-33/16

Determn. of infection in bile duct involves test with de-soxycholic, choleic and cholic acids to differentiate staph-ylococcus of bile duct from other sources. The staphylo-coccus culture from inoculating nutrient with bile sample is then treated with alcoholic solns. of proposed acids to give minimal bacteriostatic and bactericidal doses respect-ively, viz. at least 0.17 and 0.42 mg/ml. for desoxychol-ic acid; at least 0.31 and 0.63 mg/ml for choleic acid; at least 0.42 and 0.84 mg/ml for cholic acid.

The bile sample is tested against staphylococcus from another source, e.g. nasal mucus, as control. The diff-erence in results differtiates between the sources.

Sytnik, I.A., Andreichin, M.A. Bul. 30/15.8.78. 10.11.76 as 419962 (2pp114)

ELIL D16 25225Y/15 =SU -620-215

Antifungal antibiotic mixt. A-30912 - obtd. by culture of Aspergillus rugulosus strain

ELI LILLY & CO 02.10.75-US-619107

*B04 C03 (29.06.78) *BE-846-829 C12d-09*

Antibiotic mixt. A-30912 contg. factors A, B, C, D, E, F and G, and the new individual factors B-G, are obtd. by culturing Aspergillus rugulosus NRRL 8113 under submerse aerobic conditions in a medium contg. assimilable C and N sources and mineral salts, separating the antibiotic mixt., and opt. separating the individual factors.

The factors all have antifungal activity. E.g. the A and D factors give ED_{50} values of 50 and 33 mg/kg. respectively (s.c., mouse) against Candida albicans. The A factor has properties apparently identical to those of antibiotic A-22082.

Koen, M.M., Michel, K.H. Bul. 30/15.8.78. 29.9.76 as 404253 (8pp)

SNAM D16 58455V/33 =SU -620-218

Enzyme-contg. cellulosic fibres - with improved permeability and used as catalyst for enzymic reactions

SNAMPROGETTI SPA 22.03.73-IT-021944

*A96 B04 F01 (30.06.78) *BE-812-571 D01f-01/10*

Cellulosic fibres contg. enzymes are prepd. by dissolving a substituted cellulose (pref. nitrocellulose) in a water-immersible solvent, adding the soln. to an aqs. soln. of the enzyme to form an emulsion which is then spun and coagulated; the obtd. fibres are finally reduced to eliminate the substituent so as not to affect the enzyme.

The unsubstituted prod. obtd. has improved catalytic activity compared to the starting substd. cellulose.

Dinelli, D., Bartoli, F., Julinelli, S. Bul. 30/15.8.78. 21.3.74 as 006550 (2pp)

MULL/ D16 86879Y/49 =US 4156-630

Microorganism concentration in production fermenter - comprises adding filter aid and recycling it with microorganisms from centrifugal swamp filter

MULLER H 18.05.76-CH-006303

*(29.05.79) *DT2721-226 C12b-01 +C12k-01/10*

Fermentation microorganisms or enzymes are recycled by (a) effecting fermentation; (b) passing the fermentation broth into a filter tank to produce a filter cake for the microorganisms or enzymes on filter elements; (c) loosening the cake from the elements by centrifuging; and (d) recycling the detached cake into the fermentor. The fermentor also contains a filter aid which forms part of the cake.

The aid is pref. granular, fibrous or pulverent cellulosic material. The amt. of aid is pref. equal to that of the microorganisms. Sterile conditions are more easily maintained. 16.5.77 as 796877 (5pp1376)

See Also

D13 EP --2368
D17 J7 9012538
D13 SU 619165
D13 J5 4054883
D17 J7 9012542
D17 J7 9012540
D17 J7 9012536
D13 J7 9012544
D25 DT 2753679

D17: SUGAR; STARCH

HITB ★ D17 45064B/24 ★ J5 4056-646
Electrically insulating vinyl chloride resin compsn. - contains carbohydrate to improve insulation in presence of plasticiser
HITACHI CHEMICAL KK 12.10.77-JA-122206
A85 E13 R41 (A14 A60) (07.05.79) C08l-05 C08l-27/04 H01b-03/44

The compsn. comprises 100 pts. wt. of vinyl chloride resin and 0.5-10.0 pts. wt. of carbohydrate. Pref. the carbohydrate is 1 of monosaccharides (e.g. diose, triose, tetrose, pentose, etc.), disaccharides (e.g. trehalose, saccharose, maltose, cellobiose, etc.) and polysaccharides (e.g. raffinose, gentianose, melezitose, starch, etc.).

By incorporating the carbohydrate, insulating property is improved even when a great amt. of a plasticiser is container for imparting softness and flexibility or mouldability.

If more than 10 pts. wt. of the carbohydrate is added, mixing is difficult in case of glucose or sucrose, and starch or cellulose cannot be melted but dispersed in soft vinyl chloride. The carbohydrate, as it has a number of adsorption points, comparably adsorbs ions dissolved in a plasticiser to decrease free ion concn. ascribed to leaking current. 12.10.77 as 122206 (4pp140)

AGEN ★ D17 45180B/24 ★ J7 9012-536
Cane sugar prepn. from sugar beet - by contacting with microorganism which has strong alpha-galactoside activity and little or no invertase activity
AGENCY OF IND SCI TECH 11.10.68-JA-073957
(D16) (23.05.79) C12d-13 C13d-03 C13j-01/02

In prepn. of cane sugar from sugar beet, sugar beet juice or molasses is contacted with a cell body or enzyme of a microorganism which has strong α-galactosidase activity and no or litte invertase activity, whereby raffinose contained in the starting material is decomposed, and the resulting galactose is decomposed by alkaline material to recover cane sugar.

Cane sugar can be recovered at high yield without being damaged by galactose. The microorganism includes Streptomyces olivceus var. raffinose-utilizer, Mortierella vinacea var. raffinose-utililizer, and the like. The starting juice or molasses is diluted and contacted with the microorganism at pH of e.g. 5.2 at 50°C for 6 hours, whereby the raffinose is completely decomposed. 11.10.68 as 073957 C13d 3/00, C12d 13/00, C13j 1/02 (23.5.79) AGENCY OF IND SCI TECH (5pp22)

SYDK- D17 63642R/36 = J7 9012-537
D-xylose recovery from hardwood sulphite - liquor using isopropanol azeotrope
SYDKEMI AB (SYD -) 05.12.68-SW-016624
*F09 (23.05.79) *DT1939-695*

AGEN ★ D17 45181B/24 ★ J7 9012-538
Enzymatic isomerisation of glucose to fructose - in presence of boric acid donor and at specified sugar concn.
AGENCY OF IND SCI TECH 03.06.70-JA-048352
E13 (D16) (23.05.79) C13k-03

In the enzymatic isomerisation of glucose to fructose in the presence of a boric acid donor, the sugar concn. is adjusted to ≥ 0.3 mole and a ratio of concn. of boric acid donor/concn. of sugar is adjusted to 0.2-0.8. (glucose can be isomerised to fructose at high rate such as 80-90%. The boric acid donor includes Na and K salts of boric acid (meta, ortho, tetra, etc.).

In an example, 9.54 g of Na borate is added to a mixt. of 18 g of anhydrous glucose, 123 mg of ma sulphate and 3900 U of glucose isomerase, and the resultant is diluted with water to give 100 ml of soln. The soln. is kept at 70 C. After completion of the reaction, the reaction mixt. contains 89.0% fructose and 13.0% glucose. 3.6.70 as 048352 C13k 3/00 (23.5.79) AGENCY OF IND SCI TECH (4pp)

AGEN D17 37518S/22 = J7 901
Enzymatic prodn of fructose in presence of a - borate
AGENCY OF IND SCI TECH 25.11.69-JA-094493
*E13 (D16) (23.05.79) *NL7017-132 + C13k-03*

The reaction is conducted in the presence of magnesiu calcium, strontium, maganese, lithium or barium sal boric acid, or alcohol or phenol ester of boric acid is ed, whereby the equilibrium is shifted to fructose sid and then the boric acid cpd. is recovered from the re ion mixture.

High isomerization rate such as 80-90% can be atta at high sugar concn. and the boric acid can be remove easily. The reaction is conducted at 45-80°C at pH 5. 8. Amount of the boric acid used is 1-3% relative to glucose soln. The boric acid cpd. is first removed by adjusting the soln. to acidic or alkaline condition, and then the remaining boric acid cpd. is removed by ion -ange resin treatment, activated carbon treatment, et 25.11.69 as 094493 C13k 3/00 (23.5.79) AGENCY OF SCI TECH (4pp22)

OGUR/ ★ D17 45183B/24 ★ J7 9012
Sweetening agent contg. invert sugar - produced by heating sugar soln. contg. sodium ultra:phosphate
OGURA J 01.04.70-JA-027695
(23.05.79) C13k-03

To aq. sugar soln. is added sodium ultraphosphonate i an amt. of 0.05-0.5% relative to the wt. of the sugar, -owed by heating, whereby the sugar in inverted to inv sugar.

A sweetening agent contg. mainly invert sugar whic has good taste and flavour can be obtd. at low cost. T aq. sugar soln. has sugar content of about 50-80%. T heating is conducted at 60-100°C for 5-100 minutes, e for 10-30 minutes. In an example to 70% cane sugar s is added 0.1-0.3% of sodium ultraphosphate and the mi is heated at 70-100°C for 10-20 minutes, whereby ≥ 5 of the starting cane sugar can be inverted into invert s ar. The resulting mixt. can be used directly as a swe ning agent without any processing. 1.4.70 as 027695 C13k 3/00 (23.5.79) OGURA J (5pp22)

KYOW ★ D17 45184B/24 ★ J7 9012
Invert sugar soln. prepn. - by contacting sugar soln. microorganism contg. invertase under heating
KYOWA FERMENTATION KK 09.09.70-JA-073437
(D16) (23.05.79) C13k-03

A sugar solution is contacted with a microorganism co invertase under heating, whereby invert sugar solution can be obtd. The microorganism contg. invertase incl es bread yeast, beer yeast, sake yeast which contains vertase.

The reaction is donducted at pH 3 to 10 at 30 to 70, (35-65)°C. 9.9.70 as 073437 C13k 3/00(23.5.79) KYO FERMENTATION KK (2pp22)

KICO= ★ D17 45385B/24 ★ SU -619
Sugar prod. prepn. from cane sugar - includes clarifying the su and purifying it with sulphur di:oxide
KIEV CONFECT FACTOR 14.03.77-SU-462846
(03.07.78) C13d-03/06 C13f-03

Sugar for use in the food, drink and medicinal industri is obtd. from cane sugar by clarifying, purifying the c soln. by bubbling SO_2 gas through to pH 1.9-2.0, simu aneously neutralising and filtering by passing down a c umn of filler, removing colour with activated charcoal and finally concentrating the colourless liquor. The m od gives a good yield and improves the physiological qu ities of the prod.

In a prefd. method, 0.025-0.03 vol.% of SO_2 gas is -ed through the liquor for 10-15 mins. at 60°-65°C. A -able material for the filter/neutraliser column is kies guhr.

Purisman, Yu.I., Dolgii, L.N., Kuznetsov, Yu.B. et Bul. 30/15.8.78. 14.3.77 as 462846 (3pp314)

D17 21846A/12 =US 4156-618
ating sugar mixt. contg. ketose and aldose cpds. - by contact
nsoluble high polymers contg. prim. amine components
AHI DOW KK 27.12.76-JA-156252 (07.09.76-JA-106245)
*39 E13 (29.05.79) *DT2740-051 C13d-03/14 C13k-01 C13k-03*
3k-11

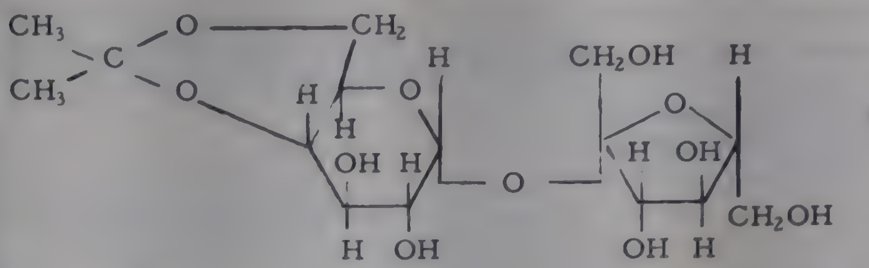
se is sepd. from a soln. of sugar mixt. contg. a ket-
and an aldose, by contacting the soln. with a high
mer which is insoluble in water, or (aq) alcohols, and
h contains prim. amine moieties.

ldoses are removed from the liq. phase by bonding to
nigh polymer. Pref. amine moieties are those of ali-
ic, aromatic or aralkyl prim. amines. Polymer has
amino gps. bonded to the backbone chain by formula
CH-Z -NH_2, where Z is 1-4C aliphatic,
$NHCH_2CH_2$-, -$O(CH_2)_n$-, or -$C_6H_9(OH)$-, where n is
3.

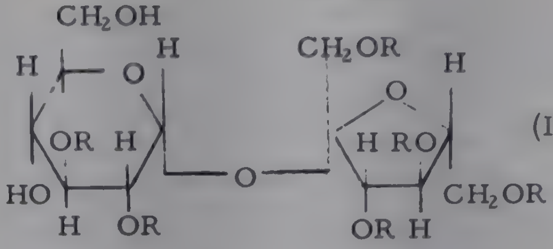
Polymer assembly has excellent selective adsorptivity
load-carrying capacity. 31. 8. 77 as 829492 (+27.12.76-
156251) (7pp931)

★ D17 45665B/24 ★US 4156-776
O-Isopropylidene sucrose - prepd. by treating sucrose with 2,2-
nethoxy propane in DMF and in presence of para
enesulphonic acid
ATE & LYLE LTD 25.05.77-US-800312 (03.04.75-US-564643)
A60 E13 G02 (29.05.79) C07h-09/02

-O-Isopropylidene sucrose of formula (I), its hexa-
etate and hexabenzoate are new:



(I)



(II)

(I) is isolated fron a reaction mixt. in the hexaacetate or benzoate form. Hexa-acetate or benzoate derivs. may be hydrolysec to give cpds. of formula (II) (where R is acetyl or benzoyl) which are useful components of inks, adhesives, coatings and plastic objects as described in US3198784, and (II) are intermediates in the synthesis of various 4- or 6-mono functional and 4, 6-difunctional sucrose derivs. 25. 5. 77 as 800312 (3pp954)

See Also

D13 J5 4055054

D18: SKINS; HIDES; LEATHER; TOBACCO

RR- ★ D18 44059B/24 ★BE-874-039
per tube for making hand-filled filter tipped cigarette - contains
nporary removable filling pref. cellulose acetate fibres, to
cilitate mechanised handling
BURRUS F J & CIE (BAUM-) 10.02.78-CH-001489
P15 (29.05.79) A24c

ne cigarette is made up with a temporary filling material
king the place of the tobacco in the tube while the filter
is attached. The filling material is easily removeable
nen the time comes to insert the tobacco in its place.

In a pref. process of mfr., using a machine normally
nployed for making filter-tipped cigarettes, a continuous
ngth of paper tube is formed around a continuous length
temporary filling. The filled tube is cut into cigarette
ngths and each is fitted with a filter tip. The temporary
lling is pref. made of cellulose acetate fibres disposed
ngitudinally of the tube. The filling is pref. elastically
eformable in a direction radial to the tube and grips the
all of the tube elastically. The filter is pref. of the double or chamber type.

The fitting of filter tips can be fully mechanised on
achines used for making filter-tipped cigarettes. The
brous filling provides tube wall support normally forth-
oming from tobacco filling. 8.2. 79 as 874039 (9pp448)

EON/ ★ D18 B/24 ★BR 7707-222
nimal skin transport system - connects successive work stations and
eatment points
LEONARDI A R 27.10.77-BR-007222
Q35 (29.05.79) B65g-17/06

FAN/ ★ D18 44467B/24 ★FR 2402-829
lectromechanical safety system for hide fleshing machine etc. - has
tationary pressure roller which can be closed towards and moved
ack from processing roll
DE FANTI A 09.09.77-FR-027553
Q68 R53 (11.05.79) C14b-17/12 F16p-03 H02p-07/20

n electro-mechanical safety system for a machine,
as a rotary processing roll on a fixed axis and a station-
ry pressure roller on a parallel axis which can be closed
n towards and moved back from the processing roll.
Displacement of the pressure roller is obtd. via a mechanical linkage from a reversible, high torque motor unit. The motor unit can be held under power at either end of its travel, i.e. with the roller advanced in its closed position or retracted into the open position.

An emergency, mechanical trip is located near to the nip of the roll and roller. When the trip is depressed, contacts are made in the electrical circuit so that the motor unit is driven to displace the pressure roller to the 'open' position. The pressure roller and its displacing linkage are pref. designed so that the roller falls by gravity to the open position when the motor exerts no torque, e.g. in the case of power failure.

Provides safety system for machines used for fleshing, scraping, depilating etc. of animal hides and skins partic. for the leather industry. The system is simple, reliable, inexpensive to fit and "fail-safe" in operation. System requires manual reset after tripping. 9.9.77 as 027553 (14pp448).

TAKA/ ★ D18 45173B/24 ★J7 9012-511
Dyeing leather in dappled patterns - by bonding stretched elastomer strips to back of leather using nitrile rubber-phenolic resin ardhesive to gather the leather, dyeing and rem
TAKAHASHI Y G 30.04.70-JA-037095
A35 F08 (23.05.79) B29d-07/20

Method comprises bonding stretched elastomer strips to back of leather using nitrile rubber-phenolic resin adhesive, releasing the stretch to effect gathering of the leather, dyeing the leather and removing the strips from the leather.

Method produces undyed spots on a dyed background, giving an attractive dappled pattern. In comparison with conventional methods, the method is simple and efficient, and does not leave thread holes in the leather. The method can be applied to natural and artificial leathers, as well as flexible synthetic resin sheets and other leather-like materials. 30.4.70 as 037095 B29d 7/20 (23.5.79) TAKAHASHI YG (3pp83)

MOGI= ★ D18 45195B/24 ★NL 7713-115

Continuous automatic cleaning of animal hides - comprising simultaneous washing and softening followed by combing and spraying to remove dung and moisture scraper

MOGILEV MYASOKOMB 29.11.77-NL-013115
(31.05.79) C14b-01/02

Appts. comprises an initial wash and softening tank, a conveyor for removing the hides from the washtank to the dung removal and drying stage. The conveyor consists of two horizontal belts between which the hides are gripped and transported. The last stage comprises a chain conveyor which grips the hide along the longitudinal axis in the direction of motion, a series of rotating drums with combs set horizontally beneath the moving hide and inclined at an angle to give the max. contact surface, between each drum a water spray bar directed at the hide and finally a roller with scrapers which removes the moisture from the surface of the cleaned hide.

The chain conveyor consists of an upper chain with rubber pads which press against the smooth side of the hide and a lower chain with support plates on which the hairy side of the hide rests. Each drum comb is placed between an adjustable bar above the hide by means of which the distance of the comb tips from the hide can be precisely adjusted in accordance with the thickness of the hide. The ribs of the last roller are adjusted so that they are in contact with the hide and squeeze the water out of the hair. Water useage is minimised. 29.11.77 as 013115 (19pp1370).

INQU- ★ D18 B/24 ★PT --68-496

Preservative and cleaner for leather - consists of animal oils in an aq. emulsion

IND QUIMICAS OERLIK 01.09.78-PT-068496
*G02 (25.05.79) D06g-00/**

EPST/ ★ D18 45551B/24 ★US 4156-431

Tobacco smoke filter - with means for removing nitrosamine(s) pref. polystyrene and means for removing amine(s) pref. silicic acid

EPSTEIN S S 29.03.77-US-782423 (02.07.70-US-051777)
A97 P15 (29.05.79) A24b-15/02 B01d-53/02

A tobacco smoke filter combined with a smokable tob article comprises first means for removing all nitro nes from tobacco smoke passing therethrough for inh ion and second means for removing all secondary am from the tobacco smoke.

The nitrosamines, and secondary amines which fo nitrosamines by reaction with NO and NO$_2$, are belie to be among the carcinogens of tobacco smoke.

Specifically the means for removing nitrosamines unsulphonated crosslinked polystyrene and the means removing secondary amines is silicic acid. Each is in particle size 10-200 mesh, or particles of volume 1 mm^3 comprises 10-50 wt.% crosslinked polystyren 90-50 wt.% silicic acid and 3-45 wt.% of a non-react binder, these ingredients being uniformly mixed with the particles. 29.3.77 as 782423 (+8.7.71;17.8.72-U 160786; 281292) (7pp1302)

LUTH/ D18 81255X/44 =US 41

Twice tanned leather for upholstering furniture and cushio over 3mm thick for novel fold effects, original texture appearance

LUTHY E 11.06.75-CH-007577
*(29.05.79) *BE-842-732 C14c-03*

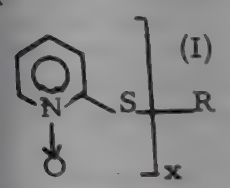
Leather for covering upholstery and cushions of furni has a loose-fibrous exposed hairless grain side devoi any protective finish and below the grain side, a thic side, a thick underlayer. The underlayer is ≥3 mm and the leather total thickness is pref. 3-6 (4-5)mm. leather is produced by subjecting a raw material or s opt. following evening-out by splitting, to tanning and tanning. It is less susceptible to soiling or contamina is easy to care for, and shows lively streaking and gr ing. 3.6.76 as 692460 (4pp945)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

★ D21 44049B/24 ★BE -872-619
etic prods. contg. pyridine thiol cpds. and acetyl cysteine - to
nt their photochemical decomposition
FFMANN-LA ROCHE SA 09.12.77-CH-015112
3 (08.06.79) A61k

prods. contain a cpd. of formula (I). in which R is Na, K or NH_4 when x is 1 and Al when x is 3, and also contains N-acetyl cys-teine.

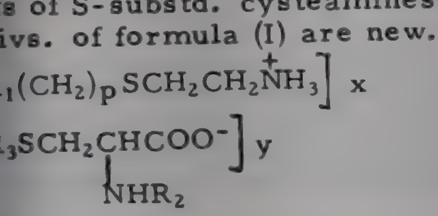

(I)

Particular applications include anti-dandruff cappiliary lotions, beauty creams for the skin and after-
re lotions. The acetyl cysteine stabilises the cpds. mpeding their photochemical decomposition.

he amt. of acetyl cysteine is pref. 0.5-8 times, esp e the amt. of pyridine cpd. The anti-dandruff capillia-otion pref. contains 0.005-0.2%, esp. 0.05-0.2% Al , and 0.01-0.4% esp. 0.1-0.4% N-acetyl cysteine. osmetic cream pref. contains the Na cpd. 8.12.78 as 619 (7pp597)

A D21 39730F/00 =DS 1908-574
anti-seborrhoeic cpds
OREAL SA 23.02.68-LU-055553
*02 (07.06.79) *DT1908-574 A61k-07/06 C07c-149/24 +C07d-13/02*

s of S-substd. cysteamines and S-substd. cysteine ivs. of formula (I) are new.



$$_{1}(CH_2)_pSCH_2CH_2\overset{+}{N}H_3\Big]\ x$$

$$_{3}SCH_2\underset{NHR_2}{C}HCOO^-\Big]\ y$$

)

In (I), p is O or 1; R_1 is Ph, $CH(NH_2)COOH$, 1-20C linear alkyl (opt. with OH substits); $(MeO)_2CH$, pyridyl-2 or N-oxopridyl-2; either R_2 is H and R_3 is $-(CH_2)_{1-5}COOH$, x is 1 and y is 1; or R_2 is Ac, CO, nicotinyl, 4-toluenesulphonyl or 4-acetylamino-nzenesulphonyl, R_3 is $PhCH_2$, x is 1 and y is 1, or R_3 is $H_2)_{1-5}COOH$, x is 2 and y is 1.

Prepn. of (I) comprises mixing solns. or suspensions the free base and free acid, opt. heating under reflux d stirring; the mixt. is then cooled to -20 to +5° and owed to stand. The prods. are used in cosmetic and edicinal prepns. for the treatment of seborrhoea. .2.69 as 908574 (9pp047).

EA D21 05538V/04 #DS 2333-305
ti-solar polymers compsn - useful esp in cosmetics
L'OREAL SA 29.06.73-BE-801700 (29.06.73-DT-333305)
*A96 P34 (A14) (07.06.79) *BE-801-700 A61k-07/40 C08f-20/58*

agent giving protection from the sun is a homopolymer an acrylamidomethyl deriv. (I) with U.V. absorbent operties or a copolymer of (I) with an N-vinylpyrrolidone N-(meth)acryloyl-D-glucosamide, methyl (meth)acryl-e, dimethyl amino ethyl (meth)acrylate and/or stearyl neth)acrylate.

Deriv. (I) may be acrylamidomethyl -4-hydroxy-benzo-henone, 3-(acrylamidomethyl-benzylidene) D.L.-camphor tc. The U.V. -absorbent is fixed to the polymer and gives xtra protection. 29.6.73 as 333305 (11pp068).

GIN D21 86526Y/49 =DS 2725-151
ris-acetoxymethyl phosphine oxide as per cpd. activator - or
recursors of the oxide useful in bleaching compsns.
PROD CHIM UGINE KUH 04.06.76-FR-016927
*E11 F06 M14 (D22) (07.06.79) *BE-855-194 D06l-03/02*

One or more phosphorous cpds. are used as activators or per-cpds., particularly in washing powders. The hosphorous cpds. have the formulae $(CH_3-CO-O-CH_2)_3PO$ $CH_3-CO-OCH_2)_3P$ and $(CO_3-CO-O-CH_2)_4P^{\oplus}$, $X^{\ominus}$ (where $X^{\ominus}$ is an (in)organic anion).

The activators are storage stable. 3.6.77 as 725151

FARB ★ D21 44142B/24 ★DT 2752-61
Dental prostheses, etc. having increased impact strength - are
produced from methacrylate polymer elasticised by di:amine
extended polyurethane
BAYER AG 25.11.77-DT-752611
A96 P32 (A14 A25) (07.06.79) A61c-05/08 A61c-13 C08l-33/10

Polymethacrylates elasticised by diamine extended polyurethanes are used in the prepn. of shaped dental articles e.g. prostheses, crowns, bridges, dental repair material and artificial teeth.

Elasticised polymethacrylate improves impact strength and reduces prostheses break-risk in cleaning. The elasticised components are better protected against oral cavity component effects. 25.11.77 as 752611 (19pp200)

ANIS ★ D21 44323B/24 ★DT 2852-792
Anticariogenic dentifrice compsns. - contg. lysozyme as
antibacterial agent (BE 6.6.79)
ANIC SPA (DEBI-) 06.12.77-IT-030410
B04 (07.06.79) A61k-07/28

Anticariogenic dentifrice compsns. contain lysozyme (I) as an active ingredient. The compsns. pref. contain 1-4 wt.% of (I) together with other, conventional ingredients. (I) inhibits the growth of cariogenic bacteria, esp. Strept. mu-ans. 6.12.78 as 852792 (9pp367)

ANIS ★ D21 44325B/24 ★DT 2852-809
Base for dermatological ointments and creams - contains
microfibres esp. of polyethylene intensifying hydration retarding
and levelling out medicinal action (BE 6.6.79)
ANIC SPA 29.09.78-IT-028250 (06.12.77-IT-030411)
A96 B07 (B04) (07.06.79) A61k-07 A61k-09/06 A61k-47

A base for ointments and creams to be used in dermatolog and having to a very high degree, a capacity for hydration contains 0.6-15 wt.% (pref. 1-10wt %) of the total wt., of microfibres with an extremely high specific surface area. The microfibres contain substances which act on the skin. Pref. they are of synthetic material, esp. polyethylene.

The base contributes considerably to the hydration and smoothing of the skin. It can prevent the complete drying out of the cream which can occur with conventional bases containing water, fat, wetting agents, etc. 6.12.78 as 852809 (21pp1045)

GIUL- D21 42569B/23 =EP ---2-184
Dentifrice contg. fine poly:phosphate granulate - e.g. sodium tri
phosphate, to remove tartar and smoking stains
GIULINI CHEMIE GMBH 26.11.77-DT-752852
*(13.06.79) *DT2752-852 A61k-07/16*
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Dentifrice compsns. having reinforced activity w.r.t. the quick removal of tartar and/or tooth discolouration caused by smoking consist of or contain up to 100% fine polyphosphate granulate having formula $Na_{n+2}P_nO_{3n+1}$ (where n $\geqslant$ 3).

The granulate is non-hygroscopic and can be stored under bathroom humidity conditions. When brushing teeth, the granulate dissolves, chemically attacks tartar and breaks it up without damaging dental enamel.

13.10.79. as 101129 (6pp200).
(G)ISR: US2191199; DT2602981; FR1483486; FR2130275
FR2015038; FR2070065.

FARB D21 44142B/24 =EP ---2-201
Dental prostheses, etc. having increased impact strength - are
produced from methacrylate polymer elasticised by di:amine-
extended polyurethane
BAYER AG 25.11.77-DT-752611
*A96 P32 (A14 A25) (13.06.79) *DT2752-611 A61c-05/10 A61c-13/08 + C08l-33/10*
D/S: E(BE, CH, DT, FR, GB, NL, SW).

Polymethacrylates elasticised by diamine-extended polyurethanes are used in the prepn. of shaped dental articles, e.g. prostheses, crowns, bridges, dental repair materials and artificial teeth.

Elasticised polymethacrylate improves impact strength and reduces prostheses break-risk in cleaning. The elasticised components are better protected against oral cavity component effects.
11.11.78 as 101350 (20pp200).
(G) ISR: DT2003365; DS1769840; GB1324432.

GLAS/ ★ D21 44390B/24 ★EP ---2-334
Hand cleaning compsn. contg. nonionic surfactant - which is condensate of alcohol, phenol or acid with nine moles alkylene oxide
GLASBY A G S 24.11.77-GB-049021
A97 (13.06.79) C11d-01/72
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Skin cleaning compsn. contains as surfactant a condensate (A) of $\geqslant$1 alcohol, phenol or acid with 9 moles alkylene oxide, and a topically acceptable diluent or additive.

Pref. (A) is the only water-soluble surfactant present and has HLB of 12.2-12.5. It is present at $\geqslant$5, pref. $\geqslant$ 10 w/v %.

The most pref. (A) are 13-15 C alcohol mixts. condensed with 9 moles ethylene oxide; opt. they are used with similar condensates (B) having only 2 moles ethylene oxide.

Used esp. for cleaning heavily oiled hands. Compsns. contg. (B) are also useful for removing printers' ink. No hydrocarbon solvent is needed and the compsns. are simple and economical to make and use.
23.11.78 as 300659 (16pp1251).
(E) ISR: DT1692011; FR0090344; FR1454011; FR2207981; FR1170418; DS1261613.

UNIL ★ D21 44416B/24 ★EP ---2-386
Anticaries tooth-paste contg. sodium mono:fluorophosphate - with a mixt. of two grades of alumina tri:hydrate as abrasive
UNILEVER LTD 07.12.77-GB-050945
B06 E34 (E33) (13.06.79) A61k-07/16
D/S: E(BE, CH, DT, FR, GB, IT, NL, SW).

Anticaries toothpaste contg. sodium monofluorophosphate (I) and alumina trihydrate (II) and free from Zn ion producing cpds. has a dentine abrasion value of 30-60 units. The (II) abrasive consists of (a) material of average particle size 5-13 μ and (b) material of average particle size <1 μ, the wt. ratio of (a) : (b) being 30 : 70 - 70 : 30.

Toothpaste has an unexpectedly high anticaries effectiveness.
5.12.78 as 300740 (10pp1248).
(E) ISR: DT2409757; GB-723718; US2818371; FR2039314; US2550207; US3670076.

VILL- ★ D21 44438B/24 ★FR 2402-445
Hair lotion which restores colour - contains sulphur, e.g. in mixt. of glycerol and alcohol and together with lead acetate
SOC VILLAME-VINCENT 13.09.77-FR-027654
(11.05.79) A61k-07/06

Hair lotion which restores the colour contains S to strengthen the scalp and aid the formation of the natural pigment.

Typically the lotion contains : washed sublimed sulphur 1.00 g; glycerol/alcohol soln. 98.55g; lead acetate 0.45g; patent blue 4, a trace. The pH of the prod. is adjusted to ca. 6.

The lotion is applied daily to the scalp and lightly massaged in. 13.9.77 as 027654 (3pp903).

UNIL D21 79641X/43 =GB 1547-361
Thickener for hair shampoos - which are mild to the skin and have good foaming characteristics, is mixt of alkanolamide and inorg salt
UNILEVER LTD 24.03.75-GB-012137
*E12 +P36 (E16) (13.06.79) *DT2612-095 C11d-01/29 C11d-03/04 +C11d-10/02*

An aq. skin shampoo which is mild to the skin and lathers well, comprises (a) a detergent consisting of the Na salt of a triethoxylated 12-24C alkyl sulphate in an amt. of 5-30 wt. % of the shampoo; (b) a foam booster consisting of 0.5-10 wt. % of the shampoo of a carboxylic betaine c formula $R.N^{\oplus}(CH_3)_2.CH_2COO^{\ominus}$ (where R is R^1 or R is 10-18C alkyl; and R^2 is $R^1CONH(CH_2)n$- (where n i (c) a thickener consisting of 0.2-3 wt. % of a fatty aci alkanolamide and 0.5-2.8 wt. % of an alkali metal or onium chloride or sulphate; and (d) water.

The shampoo has a pH of 5-8.5. 19.3.76 (4pp982

LNDH D21 61588X/33 =GB 15
Catalyst for curing polysulphide rubbers - consisting o carbonate, sulphur-contg. organic accelerator, and sulphur- complex
LONDON HOSPITAL 25.03.75-GB-012533 (17.03.75-GB-011
*A26 E33 (A60 E19) (13.06.79) *BE-839-668 C08k-03/26 05/36 C08l-81/04*

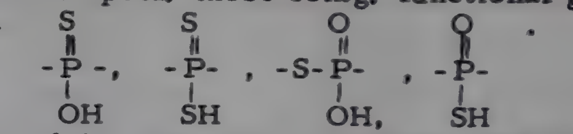
A catalyst compsn. used for the ambient temp. curin polysulphide rubbers, comprises $ZnCO_3$, an organosu contg. accelerator (I) contg. a disulphide linkage or a iocarbamate, and a sulphur/amine complex. Specific (I) is a thiazole or thiuram.

The obtd. rubbers are used e.g. as dental impress materials. The catalyst used is a non-toxic, gives di sionally stable prod. and does not impart an unpleasa taste. 16.3.76 (5pp982)

KURS ★ D21 44558B/24 ★J5 402
Adhesives for the hard tissue of animals - comprise cpds. c thiophosphorus gps. of mono basic acid, which, when mixed polymerisable monomers and cured exert greater adhesion
KURARAY KK 19.07.77-JA-087143
A96 E11 G03 (A81) (17.02.79) C08k-05/49 C09j-03/14

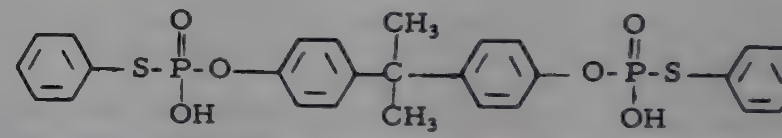
The new adhesives contain cpds. contg. thiophosphoru gsp. of monobasic acids, the adhesives have good adhe ence to the hard animal tissue.

Specifically, the cpds. contg. thiophosphorus gp. o monobasic acid are pref. those contg. functional gps., selected from



$$-\overset{S}{\overset{\|}{\underset{\underset{OH}{|}}{P}}}-,\quad -\overset{S}{\overset{\|}{\underset{\underset{SH}{|}}{P}}}-\ ,\quad -S-\overset{O}{\overset{\|}{\underset{\underset{OH}{|}}{P}}}-\ ,\quad -\overset{O}{\overset{\|}{\underset{\underset{SH}{|}}{P}}}-\ .$$

Representative of the cpds. are as follows: $HO(CH_2CH$ $C(=O)-CH_2CH_2C(=O)-NHCH_2CH_2NHP(=S)(-OH)-O-CH_2-C$ and (I).

(I) 

The cpds. are mixed with volatiliable solvents or po merisable monomers. When mixed with polymerisable monomers (e.g. methyl (methacrylate), ethylene glycol di(meth)acrylate) and cured by polymerisation of the m omers, they exert a larger adhesive power.

The adhesive are produced, e.g. by mixing the cpds with the polymerisable monomers, and curing the mixt by irradiation with UV rays or in the presence of the ca alysts contg. sulphinic acid or its salts (sodium benzen sulphinate). The amts. of the phosphorus of monobasic acids contained in the adhesives are 0.1-10 wt. %. The adhesive power of the adhesives reaches the max. in th thiophosphorus gp. amt. of 0.3 wt. %. 19.7.77 as 0871 (4pp136)

KOBA- ★ D21 44929B/24 ★J5 4055-
PVA-contg. pack cosmetic prepn. - by dispersing silica in aq. soln. gelling by adding poly:alkylene glycol, and mixing pow and/or oil in gelled prod.
KOBAYASHI KOSEI KK 07.10.77-JA-120578
A96 (A14 A25) (04.05.79) A61k-07

Prepn. of pack cosmetics contg. PVA as the major film forming agent and the powder and/or the oil of cosmetic use, comprises dispersing anhydrous silica in aq. PVA soln., getting the dispersion by adding water soluble po alkyleneglycol and combining the powder and/or the oil cosmetic use in the gelled prod.

Anhydrous silica is used as the major gelling agent a water soluble polyalkylene glycol is used as the gelling aid for aq. PVA soln. A uniform gel can be obtd. and t powder and/or the oil of cosmetic use can be combined i stably. 7.10.77 as 120578 (4pp5)

★ D21 44930B/24 ★ J5 4055-739
ace powder contg. globular silicic anhydride - to increase
nce to rain, sweat etc.
NOGAWA SHOJI 06.10.77-JA-120405
(04.05.79) A61k-07/03
olid face powder contains 1-50 w/w% of globular sili-
hydride having granular size 0.5-30 μ.
e granular silicic anhydride is made porous and pre-
-resistant, and improves the extending property, ad-
e property, hygroscopic property and perfume-retain-
operty of the face powder. Make-up contg. it is not
adversely affected by rain, sweat, etc. 6.10.77 as
5 (4pp5)

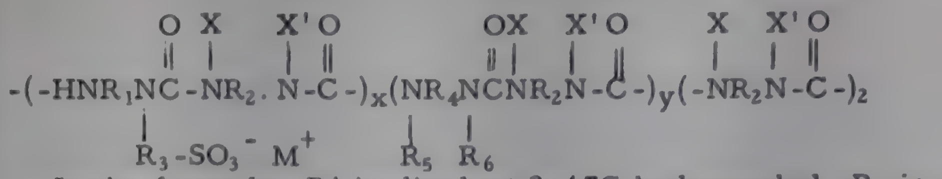
★ D21 44987B/24 ★ J5 4056-083
phobic powder prodn. for use in cosmetics, plastics etc. - by
ng mixt. of e.g. mica and metal hydroxide then forming
nked polysiloxane coating on powder
SEIDO KK 12.10.77-JA-122214
0 G01 H07 (04.05.79) C09k-03
ess is effected by grinding the mixt. consisting of
cles of mica, kaolin, talc, iron oxide, titanium diox-
mica covered with titanium, silicic acid, ultramar-
prussian blue and/or zinc oxide and metal hydroxide(s)
llowing methylhydrogenpolysiloxane oil to crosslink
polymerise on the surface of the powders.
he hydrophobic powders may be used in cosmetics,
ics, magnetic recording tapes, paints, inks, lubric-
etc. In an example, 97.2 pts. of mica powders were
nd with 0.4 pts. of zinc hydroxide in vibration ball
for 10 min. and added 2.3 parts of methylhydrogen-
siloxane oil of SiH equivalent 77 and ground at ordin-
temp. for 30 min. The resulting mica powders were
rless and exhibited strong hydrophobic properties.
0.77 as 122214 (7pp96)

★ D21 45047B/24 ★ J5 4056-614
npoo compsn. only slightly irritative to the eye - contg. anionic
ctant of alkali(ne earth) type ethylene- or propylene-oxide
ct of cholesterol(s), and quat. nitrogen contg. polymer
ON FAT & OIL KK 12.10.77-JA-122232
96 (A25) (07.05.79) A61k-07/06 C11d-01/02 C11d-03/20 C11d-
0/02
hampoo compsn. only slightly irritative to eye contains
nionic surfactant of an alkali metal or alkaline earth
al salt type, 5-120 mole ethylene oxide or propylene
le adduct of cholesterols, and a polymer contg. quat.
toms, as the essential components.
n an example, compsn. was prepd. contg. 15 wt.% 12-
alkyl ethoxy (3 moles) sulphuric ester; 7 wt.% adduct
0 moles ethylene oxide to polyethoxylated cholesterol;
t.% 'Polymer JR-400' (RTM) and balance water.
10.77 as 122232 (5pp126)

C ★ D21 45052B/24 ★ J5 4056-629
tal calculus staining agent - contg. laccaic acid or copper
rophyll salts
LION DENTIFRICE KK 13.10.77-JA-122617
E12 (E17) (07.05.79) A61k-05 C09b-01 C09b-61
ontolith staining agent contains laccaic acid or copper
orophyll salts as main component. A surfactant may
o be present.
In an example an aq. soln. contg. 5% of sodium copper
orophyll and 0.1% of saccharose fatty acid monopalmit-
was immersed prepd. and cotton stick was immersed
it, then dried with a warm air stream at 50 °C. It was
n covered with thin defatted cotton. The odontolith
ining stick was sealed in a paper bag and preserved for
nonth, immersed in city water and odontolith agent elua-
l out over the outer surface of the covering was coated
ound a tooth. The odontolith was coloured very simply
th good distinguishability. The oral drug does not rem-
n over oral mucosa after blushing and only odontolith
maining as residue from blushing is clearly coloured.
, 10.77 as 122617 (5pp69)

ATS D21 63804A/36 = US 4156-675
lphonate-contg. polyurea - used as antistatic agent, dye-fixing
gent, flocking agent, light sensitive agent etc.
NHK SPRING KK 25.02.77-JA-019980
*A26 C03 G02 (G03) (29.05.79) *DT2807-861 C08g-18/38*

A urea cpd. with a sulphonate radical, is of formula (I):



$$-(-HNR_1\underset{\underset{R_3-SO_3^-\ M^+}{|}}{N}\overset{O}{\overset{\|}{C}}-\overset{X}{\overset{|}{N}}R_2.\overset{X'}{\overset{|}{N}}-\overset{O}{\overset{\|}{C}}-)_x(\underset{\underset{R_5}{|}}{N}R_4\underset{\underset{R_6}{|}}{N}\overset{O}{\overset{\|}{C}}\overset{X}{\overset{|}{N}}R_2\overset{X'}{\overset{|}{N}}-\overset{O}{\overset{\|}{C}}-)_y(-\overset{X}{\overset{|}{N}}R_2\overset{X'}{\overset{|}{N}}-\overset{O}{\overset{\|}{C}}-)_2$$

In the formula, R' is divalent 2-17C hydrocarbyl, R_2 is divalent 4-29C hydrocarbyl, or polyether or polyester of $\overline{m}$ < 10000, R_3 is -CRSH-CRγRγ'-CRβRβ'-C-RαRα'- or -CRγH-CRβRβ-CRαRα'- (where Rα, Rα', Rβ, Rβ', Rγ, Rγ- and Rδ are H, 1-5C alkyl or monovalent radicals), R_4 is as R_1, R_{5-6} are each 1-16C monovalent hydrocarbyl or a divalent hydrocarbyl together forming a carbon chain, X and X' are H or a biuret bridge, M^+ is a cation, x+y+z=1, $0.1 < 100\ x/(x+y+z) < 100$ and $0 < 100z/(x+y+z) < 50$.

The prod. is used e.g. as an antistatic, dye fixing agent, flocculant, sensitiser, photosensitive agent, auxiliary for paints and inks, surfactants, ion-exchange resins, adsorbents, chelating agents, agrochemicals, soil conditioners and pH controllers. 17.2.78 as 878865 (14pp982)

COLG ★ D21 45636B/24 ★ US 4156-707
Multicoloured variegated soap mfr. - includes spraying colour soln. on moist soap particles and drying
COLGATE PALMOLIVE CO 06.02.78-US-875465 (06.10.75-US-619716)
(29.05.79) C11d-13/08

Multicoloured variegated soap bars are made by preparing a soap slurry contg. at least 30 wt.% water solidifying the slurry, reducing the solid to particles and applying a soln of colouring agent either before or after the reducing step The soap is then dried to a moisture content of 2-12%, conveyed to a plodder, and extruded to form continuous billets which are divided into bars.

The colouring does not spread through the soap, and cracking due to uneven moisture distribution is avoided. 6.2.78 as 875465 (4pp955)

GENM ★ D21 45639B/24 ★ US 4156-715
Chewing gum for reducing or inhibiting plaque - contains alkyl sulphate, di:(2-ethylhexyl) sulpho:succinate salt, zinc cpd., and plaque inhibiting flavour etc.
GENERAL MILLS INC 28.11.77-US-855125
B05 E19 (29.05.79) A61k-07/16 A61k-09/68

Chewing gum contains (all by wt.) 0.001-15% alkyl sulphate salt (I); 0.001-15% of a salt of di(2-ethylhexyl)sulphosuccinate (II); 0.0005-10% of butylated hydroxyanisole (III); 0.001-5% of a Zn cpd; 0.05-10% of a plaque inhibiting flavour (IV); and 10-95% of a gum base. (IV) is cinnamon, peppermint, or spearmint oil, or their mixts.

Chewing gum is highly effective in inhibiting or reducing dental plaque and calculus. Compsns. may also be mouthwashes, toothpastes, etc. 28.11.77 as 855125 (8pp478)

GENM ★ D21 45640B/24 ★ US 4156-716
Chewing gum for reducing or inhibiting plaque - contains gum base, di:(2-ethylhexyl) sulpho:succinate salt, and zinc cpd.
GENERAL MILLS INC 28.11.77-US-855126
B05 E19 (29.05.79) A61k-07/16 A61k-09/68

Chewing gum contains (a) 10-95% by wt. of a gum base (I); and (b) 0.001-20% by wt. of a mixt. of a di(2-ethylhexyl) sulphosuccinate salt (II) and a Zn cpd. (III). Wt. ratio (II):(III)=1000-1:1-1000.

Gum is highly effective in removing plaque from teeth and inhibiting the growth of new plaque. Compsns. are also mouthwashes, toothpastes, etc. 28.11.77 as 855126 (6pp478)

HUBE ★ D21 45641B/24 ★ US 4156-717
Tooth paste contg. silica thickener - prepd. by pptn. using controlled addn. of acid to alkali silicate soln.
HUBER J M CORP 12.10.76-US-731481 (03.10.73-US-402927)
E36 (E17) (29.05.79) A61k-07/16

A toothpaste is claimed contg. sorbitol or sorbitol-glycerol humectant and as thickening agent a pptd. silica having wet cake moisture ≥ 85%, oil absorption > 200cc/100g and surface area > 250 m²/g. The silica is prepd. by (a) providing a soln. contg. 10-20% alkali metal silicate, having an SiO_2/M_2O wt. ratio, 'x' of 1.0-4.0; (b) heating the soln. to 150-170°F; (c) adding a mineral acid at a constant rate of 1/x to 2/x moles H ions per min. to ppte. the silica.

Silicas prepd. as above are also useful as flatting agents in paints and varnishes. 12.10.76 as 731481 (+13.2.75-US-549619) (5pp955)

JOHJ ★ D21 45661B/24 ★US 4156-766
Thermally stable dental restorative material - comprises polyfunctional (meth)acrylate monomer and a para-tert. butyl:benzoyl peroxide catalyst
JOHNSON & JOHNSON 12.09.77-US-832304 (10.01.77-US-758277)
A14 (A96) (29.05.79) C08f-04/32 C08f-22/14 C08k-09/06

The material comprises a difunctional liquid polymerisable monomer and p-t-butyl benzoyl peroxide (I). The monomer is the bis(glycidyl methacrylate) of bisphenol A, triethylene glycol dimethacrylate, the trimethac or triacrylate of glycerol, trimethylolethane, trime propane or trimethylollantane or diphenyloxide subs by 1-4 $-CH_2OOC-C(CH_3)=CH_2$ gps. The compsn. is ed when free of accelerators for the catalyst or in c bination with an amine accelerator.

The materials are used for filling teeth or as de glazing cpds. or dental cement. (I) gives increased mal stability of the monomer/catalyst compsn. (fre accelerator) of 2 years at 70°F. 12.9.77 as 832304

See Also

D23 J5 4055512 D23 J5 4055513

D22 : BANDAGES ; DRESSINGS

SODR- ★ D22 44035B/24 ★BE -872-554
Feed arrangement of continuous sheets of pulp to dry-laying machine - in zig/zag folds
SODRA SKOGSAGARNA 30.05.78-SW-006233
F09 (06.06.79) D21b

In the grinding of fibrous wood pulps in the conventional grinders, using hammer, needles or saw-teeth etc., to obtain a dry-laid web of pulp flakes, for the prodn. of paper and absorbent prods., such as napkins and diapers, the pulp is fed to the grinder in the form of a zig-zag continuous sheet.

By folding, rather than winding the continuous sheet, it is possible to establish an uninterrupted feed, without the need to change the roll or bale. On re-instalment after feed breakdown, it is not necessary to consider the peripheral speed of the unwinding roll when re-establishing the delivery. An economy is effected since there is no need to install a device for changing spent rolls or bales. The folded web may be fed to machines previously intended for rolls of pulp. It occupies less space than the rolls and costs less to transport. It is possible to provide a day's supply to the web feed device, without need for replacement. Changing the folded web bales is quick and simple. 6.12.78 as 872554 (21pp1359)

ESPE D22 49201T/31 =DS 2101-939
Self-curing compsn - suitable for appln as dental cement
ESPE FAB PHARM PRAPARATE 15.01.71-DT-101939
*A96 E32 (07.06.79) *DT2101-939 C08l-35 +C08k-03/20 C08l-33/02*

A hardened mass suitable for use in dentistry is prepd. by addn. of zinc oxide to a liquid aq. compsn. contg. a polymerised unsatd. carboxylic acid derived from α, β- unsatd. dicarboxylic acids and pref. polyacrylic acid as well as usual additives. Aq. liquid pref. contains 40-50% polymer e.g. polymaleic acid of viscosity 0.5-3000 poise at 25°C.

The hardened mass is noninjurious, insoluble and resistant to pressure. 15.1.71 as 101939 (4pp068).

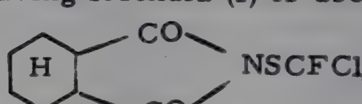
ZANT/ D22 38672A/22 =DS 2652-673
Biologically active gas purification in closed vessel - with perforated corrugated floor plates and inactive granulate-supporting filter material
ZANTOPP H 19.11.76-DT-652673
*J01 P34 (07.06.79) *DT2652-673 B01d-53/34*

A filter tower for the purificn. of waste gases, e.g. the deodorization of air extracted from industrial, sewage or agricultural establishments, consists of an outer cylinder and an inner cylinder. The two are joined by a succession of conical plates, surmounted by perforated plates carrying a biologically active filter material (humus, compost). Spray nozzles are arranged above each filter layer. The cylinders are pref. made of glass-fibre reinforced plastic, and a layer of plastic granules lies directly above each perforated plate.

This filter tower is easy to assemble and can be r adapted to varying flow rates. 19.11.76 as 652673 (

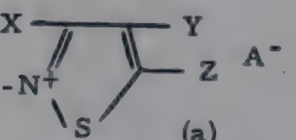
FARB ★ D22 44114B/24 ★DS 28
Microbicide esp. fungicide compsn. - e.g. for protecting adhe glues, paper, etc., contains di:chloro-fluoro-methyl-thio hexa phthalimide
BAYER AG 10.01.78-DT-800921
A60 E13 G02 P34 (G03 G04) (07.06.79) A61l-13

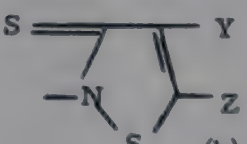
N-(Di-chlorofluoromethylthio)-hexahydro-phthalimide having formula (I) is used as active ingredient in mic bicide compsns. for pro ing technical materials against microbial decon (I)-contg. compsns. be used for protecting a sives, glues, paper, cardboard, textiles, plastics, le wood, paints, silicone sealing compsns., partic. for prepn. of fungicidal paints, wood impregnants and mo resistant adhesive and paper materials.


(I)

(I) is partic. active against fungi, yeasts and algae can be used in low concns., e.g. 0.01-1wt.% w.r.t. material to be protected. (I) dissolves well in alcoho glycols, esters, aliphatic and aromatic hydrocarbons. 10.1.78 as 800921 (3pp200).

GIVA ★ D22 44253B/24 ★DT 285
Antibacterial, fungicidal isothiazole derivs. - comprising 2-subs halo-isothiazoline salt, 4 isothiazoline-3-thione or 3-di:cy methylene-4 isothiazoline derivs.
GIVAUDAN L & CIE SA 16.10.78-US-952038 (25.11.7 854456)
A60 C02 E13 (07.06.79) A01n-09/12 A61k-31/42 C02b-0 C07d-275/02 C11d-03/48


(a)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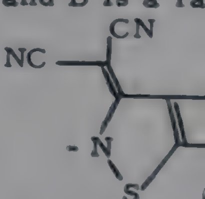
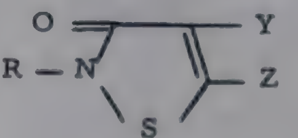



(II)

New 2-substd.-3-halogen-isothiazoloim salts (I'), 2-s std.-4-isothiazoline-3-thiones, (IV), and 2-substd.-3 dicyanomethylene-4-isothiazolines (III) have general f -ula R-B (I) (where R is alkyl or alkenyl and B is a ra ical (a), (b) or (c) (where X is halo; Y and Z a each H, lower alkyl, halo, - -CN or carboalkoxy and A⁻ i anion).

(I'), (III) and (IV) are ant bacterial agents and fungicid e.g. for use in emulsion paints, polymer emulsions, mills, industrial cooling water, agriculture, soaps, c

s, cutting oils, anionactive surfactants and adhesives.
e intermediates for the prepn. of fungicides (III) and
.e. (I) where B = c or b) and of 4-isothiazoline-3-
ods. of formula (II). 24. 11. 78 as 851023 (50pp200)

★ D22 44295B/24 ★DT 2852-289

surgery prostheses mfr. - from blood vessels stripped from
umbilical cords and processed

ERMEDICAT GMBH 06.12.77-CH-014904

6 (A17 A26) (07.06.79) A61k-35/44

an imbilical cords are used for the recovery of pros-
es to be used in heart, kidney and liver surgery by
ng them in satd. NaCl soln. After keeping them in a
lactic acid soln. to swell for one hour, vein and art-
are stripped and stored in dilute hydrogen peroxide
. The blood vessels are finally pulled over silicone
ted polyethylene tubes of 1.5-3 mm dia. for arteries
3-6 mm dia. for veins.

his produces fine-gauge tubular prostheses of high
ity and with exact dimensions. 4.12.78 as 852289
39)

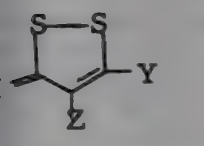
- ★ D22 44918B/24 ★J5 4055-724

e control agent - contains a substd. 1,2-dithiol cpd. as active
ponent, used in cooling water systems or in paper mfr.

ATAYAMA KAGAKU KOG 07.10.77-JA-121286

02 F09 (D15) (04.05.79) A01n-09/12

he control agent contains substd. 1,2-dithiol of formula
where X is O or dihalo; Y is halogen; and Z is aryl) as
ve component. Pref. X=Y=Cl or Br. Pref. Z is
nyl.



(I)

(I) shows a strong fungicidal and antibiotic effect to Eumycetes and bacteria sepd. from the slime adhering to cooling water systems and paper-mfg. systems and (I) is effective as slime controlling agent.

With continuous addn., concn. of (I) in the water is 0.1
ppm. (I) can be used directly or is used in the form of
oln. or suspension. As diluent or carrier (m)ethanol,
panol, xylene, toluene, DMF, N-methylformamide,
ISO, dimethylsulphone or ethylene chloride may be used.
e content of (I) in the preparation is 5-75%. 7.10.77 as
1286 (5pp108)

NY ★ D22 44921B/24 ★J5 4055-727

venting the propagation of fibrous bacteria, e.g. slime - by
ding arabinoside(s) of adenine or cytosine or their derivs.

SANKYO KK 07.10.77-JA-120586

C02 (04.05.79) A01n-09/22

revention of propagation of fibrous bacteria comprises
ding $\geqslant$1 cpd. selected from ara-A, ara-C, 8-hydra
no-ara-A, 8-bromo-ara-A and formycin, to the place
here fibrous bacteria propagate. Ara-C is β-cytosine
abinoside, and ara-A is adenine arabinoside.

The active cpd. prevents specifically and completely
e propagation of fibrous bacteria at low concn. MIC of
a-A to Sphaerotilus is as low as 0.8 μg/ml. The active
d. has a very low toxicity. Although the active cpd. is
effective to gram-positive and gram-negative bacteria,
is specifically effective particularly to Sphaerotilus.
nce the active cpd. is naturally-occurring, it can be
eadily decomposed by bacteria in the soil, and therefore
is not accumulated in the soil. It is stable in water.
sed e.g. as slime controlling agent in cooling water sys-
ems. 7.10.77 as 120586 (4pp108)

OYO- ★ D22 44931B/24 ★J5 4055-740

door aromatiser with extended service life - prepd. by combining
erfume and isocyanate cpd. in aq. soln. of high molecular cpd.
en forming gel

KOYO SANGYO KK 05.10.77-JA-119820

A97 (04.05.79) A61k-07/46

ndoor aromatiser is prepd. by combining perfume and
pd. having > 2 isocyanate gps. in aq. soln. of water sol-
ble high molecular substance, injecting thus obtained
lurry in vessel and forming gel.

The high molecular substance partic. PVA, its deriv.,
ompletely saponified PVA, etc. gives aromatiser with
igh gel strength, little foaming, good durability for aroma
and good adhesive property to vessels. Further complete-
ly saponified PVA forms film on the surface of the gel wh
suppresses the scattering of the perfume and water and
can retain perfume for long time.

The cpd. having > 2 isocyanate gps. is pref. hydro-
philic isocyanate cpd. which can be prepd. by reacting
ethyleneoxide with isocyanate cpd. or by reacting the copo
lymer of ethyleneoxide and propyleneoxide with isocyanate
compound. 5.10.77 as 119820 (5pp5)

KOYO- ★ D22 44932B/24 ★J5 4055-741

Indoor aromatiser - comprises perfume, water immiscible solvent, aq. soln. of high molecular material and hydrophilic isocyanate cpd.

KOYO SANGYO KK 05.10.77-JA-119822

A97 (04.05.79) A61k-07/46

The indoor aromatiser is prepd. by dissolving perfume in a solvent which is immiscible with water and miscible wit
the perfume, dispersing the solution uniformly in aq. soln of water soluble high molecular substance, combining hydrophilic isocyanate cpd. in it, injecting thus obtd. slurry in vessels and gelling it. As water soluble high molecula
substance CMC, hydroxyethyl-and methyl-cellulose, PVA, modified PVA, etc. can be used.

The aromatiser shows high gel strength, elasticity and good adhesive property to vessels. By combining perfume in the form of the solution, the durability of the aroma ca
be prolonged. The perfume solution forms oil drops as a stable colloid in aq. medium in the presence of water soluble high molecular substance as the protective colloid, and after the gelation, the oil drops are included in the ge
as if microcapsules. 5.10.77 as 119822 (4pp5)

CIBA D22 14876V/08 =SU -619-084

Triorgano-lead or tin sulphide biocides

CIBA GEIGY AG 04.08.72-DT-238360

*A60 C01 E12 +P34 (05.07.78) *NL7310-788 C07f-07/22
+A01n-09/12*

Cpds. are of formula $R^1R^2R^3MSA$, (where M = Sn or Pb, R^1-R^3 are 1-16C linear or branched aliphatic residue opt. contg. a double bond, cyclohexyl, cyclopentyl, or Ph, while $R^1+R^2+R^3$ contain $\not>$ 18C, and A = a strongly hydrophilic residue contg. a polyol, polyether, carboxylic este
amide, or salt, sulphonate, and/or ammonium salt functions and may be prepd. by condensing $R^1R^2R^3MX$ (where X =OH, $\frac{1}{2}$(O), Cl, Br, I or OAc) with HSA, in the presence of a base.

They are useful as hydrophilic biocides, fungicides, disinfectants and preservatives.

Wirt, G.O., Lorentz, H.J., Fridrich, H.H. Bul. 29/
5.8.78. 3.8.73 as 953552 (4pp)

MEDK D22 67107X/36 #SU -620-19

Steriliser for use with a bacteriocidal gas - e.g. ethylene oxide, has a carbon dioxide purge system

MEDICOR MUVEK (MEDI-) 13.02.75-DT-506114 (27.02.76-SU-108462)

*P34 (21.07.78) *DT2506-114 A61l-03*

The steriliser, comprises chamber, holder for gas cylind
ers, mechanism to open the cylinders, valve to allow gases to escape from the chamber, switchover bracket, stop, and self-regulating heating system. Construction is simp
lified, by putting the gas-cylinders holder and the opening mechanism inside the chamber. The holder has two hollows to cater for the cylinders, while the stop and switchover bracket are on the outside on the upper wall, and the heating system is underneath, in the form of an induction coil, a resistance, or a heating jacket.

Chekesh, J., Patakfalvi, Y., Kovach, E. Bul. 30/15.8.7
27.2.76 as 108462 (4pp29)

WIES/ D22 40103Y/23 #US 4156-65

Sterilising liquids by ultraviolet radiation with ozonised air - in tw
vessel circuit recycling air for intensified action

WIEST R 18.11.75-DT-551622 (28.07.77-US-819890)

*P34 (29.05.79) *DT2551-622 +C02b-01/38 C02b-03/02*

Fluids are sterilised in appts. which includes an annular sterilising space between inner and outer casing, a UV source surrounded by the inner casing, and a device to conduct O_2 through a channel bounded by the inner casing and the source to produce ozone rich O_2.

A portion of this enriched gas is added to the fluid to be treated in the annular space to thus cause further ozone enrichment of the O_2 and further sterilise the fluid. A valve, pref. 3-way, controls the flow of gas and fluid. 28. 7. 77 as 819890 (5pp1376)

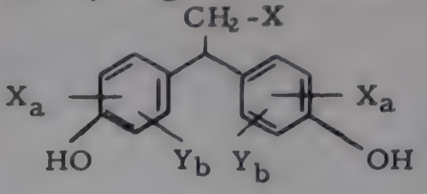
MONS D22 37537B/20 =US 4156-787

1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - by one-step dehydrohalogenation-rearrangement hydrogenation of 1,1-bis-(4-hydroxy-aryl)-2-halo ethane cpds.

MONSANTO CO 31.10.77-US-846754

*A41 E14 H06 (A60 H07) (29.05.79) *EP---1-909 C07c-39/16*

1,1-bis-(4-hydroxyaryl)2-haloethanes are reacted in a one-step dehydrohalogenation-rearrangement-hydrogenation process by contacting in an aliphatic carboxylic acid solvent contg. a soluble carboxylic acid salt, with H a hydrogenation catalyst at 100-250°C and such con for hydrogenation, for time to ensure reaction.



The prod. is of formu (in which X is Cl, Br Y is a non-interfering carbyl; a and b are ea 0-4; and a+b ⊁ 4.

The prod. are bacte des, chemical interme monomer units for copolymers and antioxidants. Th are also used to stabilise animal and vegetable fats oils, gasolene, lubricants and polyalkenes, and in th pn. of resins. 31. 10. 77 as 846754 (7pp931)

See Also

D13 EP --2210 D21 DS 2725151

D23: OILS; FATS; WAXES

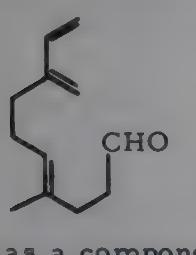
FIRM D23 68033R/38 =DS 1793-711

Unsat aldehydes with four double bonds - used as flavouring materials

FIRMENICH SA 14.12.67-CH-017568 (15.06.67-CH-008529)

*(07.06.79) *DL--74-269 C07c-47/20*

4-methyl-8-vinyl-nonadiene-(4, 8)-al (I) is new



(I)

Cpd. I may be prepd. by reacting mycrene with a per acid to obtain the epoxide which is converted to the corresp. sec. alcohol. This sec. alcohol is condensed with an unsubstd. vinyl ether and the condensn. prod. hydrolysed in acid aq. medium to (I). (I) is useful as a component of perfumes. 12. 6. 68 as 793711 (5pp).

UGIN D23 77583V/45 =DS 2445-729

Fatty acids prepn. from crude metallic soaps - by dissolving in org. acid and acidifying with aq. mineral acid

PROD CHIM UGINE KUH 26.09.73-FR-034464

*E17 (07.06.79) *BE-816-424 C07c-51/02*

Fatty acids are prepd. by a continuous process in which metal soaps are acidified. One or more soaps are dissolved in a molten organic acid contg. at least 4 C atoms in the radical in a wt. ratio between 2:1 and 0.2:1 (1:1 and 0.3:1) at 50-150°C (80-110°C) at normal pressure and in the absence of air.

The mixt. is then acidified with an aq. mineral acid soln. contg. sufficient water to dissolve out the inorganic salt formed. 25. 9. 74 as 445729 (3pp068).

AIRL ★ D23 44457B/24 ★FR 2402-702

Thermally stable epoxidised oil partic. soybean oil - prepd. using per:acid with a heavy metal sequestering agent

AIR LIQUIDE L' 13.09.77-FR-027563

A60 E13 (A14) (11.05.79) C11c-03

Epoxidation of oils is effected by a peracid in the presence of a heavy metal sequestering agent. The sequestering agent is: ethylene nitrilotriacetic, diaminotetraacetic, cyclohexanediaminotetraacetic, or diethylene triaminopentaacetic acid, pref. in the form of its alkali or alkaline earth metal salt.

Trisodium diethylentriaminopentaacetate is preferred. The amount of sequestering agent used is pref. 5-100, partic. 20-40, mg per kg soya-bean oil. The peracid can be pre-formed or formed in situ using H_2O_2. It is pref. a lower aliphatic peracid, such as performic acid.

Epoxidised soya-bean oil is used to stabilise PVC, the mixt. being used to mfr. packing material by extrusion. The prod. is of constant quality and has good thermal stability. 13.9.77 as 027563 (5pp1331).

MITC ★ D23 44730B/24 ★J5 405

Chroman derivs.-contg. antioxidant - contg. ester(s) fro hydroxy-chroman deriv. and phosphorus oxyacid cpd.

MITSUI PETROCHEM IND KK 12.10.77-JA-121412

A60 E13 H07 (01.05.79) C08k-05/51 C09k-15/32

Antioxidant comprises ⩾ 1 ester from (a) 6-hydroxy roman deriv. and (b) phosphorus oxyacid cpd. Antio dant is useful for preventing the oxidn. of liq. hydroc bons, fat, oil, esp. synthetic polymers such as polyo vinyl polymer, epoxy resin, polyacetal, polyamide, etc.

In an example to vitamin E wa s added pyridine, ar benzene soln. of PCl_3. After completion of the reacti hydrochloride of pyridine was filtered, and the result filtrate was condensed at room temp. under reduced p ssure. Water was added to the residue to decompose The prod. was extracted twice with either, and the et layer was washed with $NaHCO_3$ aq. soln. and satd. Na soln., and dried with Glauber's salt. Yellow waxy su stance was obtd. by removing ether under reduced pre ure. 12. 10. 77 as 121412 (8pp96)

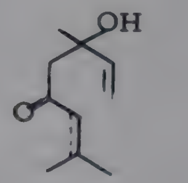
HASE ★ D23 44835B/24 ★J5 405

Mono:terpene-beta-ketol cpds. - useful as perfumes for cosm foods, pharmaceuticals etc.

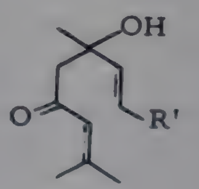
HASEGAWA KK 07.10.77-JA-119978

B07 E17 (B05 D13 D21) (02.05.79) A61k-07/46 C07c-45 49/24 C07c-163

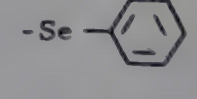
A monoterpene-β-ketol of formula (I) is claimed where dotted line is a single or double bond.



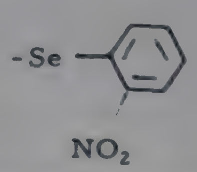
(I)



(II)



(II



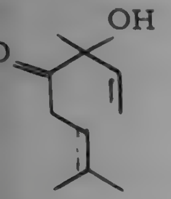
(I

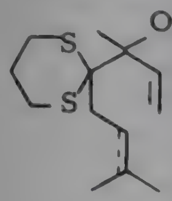
(I) is useful as perfumes for cosmetics, foods, or pharmaceuticals.

(I) is prepd. by treating a monoterpene-β-ketol (II) H_2O_2 or by treating (II) with chloramine T in the presen of a quaternary ammonium salt (where R' is (III) or (IV and ------ is a single or double bond. 7. 10. 77 as 1199 (14pp33)

r D23 44836B/24 ★J5 4055-513
erpene alpha ketol cpds. - useful as perfume agents in ic, food or pharmaceutical compsns.
EGAWA KK 07.10.77-JA-119979
E17 (B05 D13 D21) (02.05.79) A61k-07/46 C07c-45 C07c- 24

erpene-α-ketols (I) of formula are new (where the bond is present or absent). The cpds. are useful fumes for cosmetics, foods, or pharmaceutical ns.

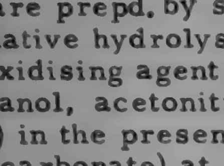

(I)

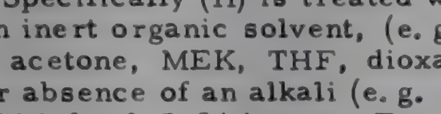

(II)

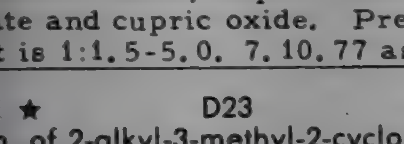
are prepd. by submitting a disubstituted dithiane (II) dative hydrolysis. Specifically (II) is treated with a oxidising agent in an inert organic solvent, (e. g. hanol, acetonitrile, acetone, MEK, THF, dioxan,) in the presence or absence of an alkali (e. g. cad- carbonate) at 10-80°C for 0.5-24 hours. Examples oxidising agent are mercuric chloride, mercuric ide, mercuric acetate, mercuric oxide, silver nitr- silver oxide, cupric chloride, cupric bromide, cupric te and cupric oxide. Pref. molar ratio (II):oxidising is 1:1.5-5.0. 7.10.77 as 119979 (11pp33)

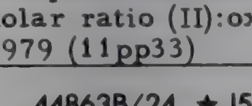
★ D23 44863B/24 ★J5 4055-552
n. of 2-alkyl-3-methyl-2-cyclopentene-1-one - used as jasmine ur, by ring-opening a 5 methyl-2-alkyl:furan using an acid and sing by adding alkali
ASEGAWA KK 11.10.77-JA-120903
5 (02.05.79) C07c-45 C07c-49/46

on. of 2-alkyl-2-methyl-2-cyclopenten-1-one of ula (I) comprises ring-opening a 5-methyl-2-alkylfur- f formula (II) by contacting with an inorganic acid in a o- or polyhydric aq. alcohol and then cyclising the re- ing prod. by adding an alkali to the reaction system out sepg. the ring-opened prod. In the formula R is 1-10C opt. branched chain alkyl.


(I)


(II)


(III)

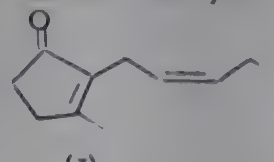

(V)

Pref. (II) is a cpd. (IIa) obtd. by contacting a 1-(5- thyl-2-furyl)-alkan-1-ol of formula (III) with zinc and tic acid or a cpd. (IIb) obtd. by dehydrating 1-(5- thyl-2-furyl)-alkan-1-ol (III) by contacting with an acid an inert organic solvent and then catalytically hydrogen- ng the reaction prod. in the presence of a hydrogenating alyst. Pref. the cpd. (III) is obtd. by reacting 5-methyl -furfural of formula V with a Grignard reagent of form- R-CH_2MgX (IV); X is halogen.

The prod. is prepd. at high yields. Complicated oper- on for sepg. the ring-opened prod. can be omitted. .10.77 as 120903 (8pp140)

SE ★ D23 44864B/24 ★J5 4055-553
-Jasmone prepn. - from 1-(5-methyl-2-furyl)-2,4-hexadiene or 2- 3 pentadienyl)-3-methyl-2-cyclopenten-1-one
HASEGAWA KK 11.10.77-JA-120904
E15 (02.05.79) B01j-31/20 C07c-45 C07c-49/46

repn. of cis-jasmone of formul a (I) comprises catalyti- lly hydrogenating 1-(5-methyl-2-furyl)-2,4-hexadiene in e presence of a metal carbonyl cpd. or an arene compl- catalyst thereof of formula Mx(CO)y(arene)z (V) to obtain 1-(5-methyl-2-furyl)-cis-3-hexene (II) contacting (II) with an acid catalyst (e. g. hydrochloric acid, sulphuric acid, or p-toluenesulphonic acid) in an aq. polar organic solvent (e. g. methanol, ethanol, 1-4C organic carboxylic acids or acetone) to effect ring-opening and then cyclising with an alkali (e. g. sodium hydroxide, potassium carbonate or sodium methylate).


(I)

In (V), M is Cr, Mo or W; arene is an arene is an arene ligand; x is 1 or 2. y is 3-6. z is 0-3. Alternatively, prepn. comprises catalytically hydrogenating 2-(1,3-pentadienyl)-3-methyl-2-cyclopentene-1-one in the presence of a metal carbonyl cpd. or an arene complex catalyst thereof of formula (V). 11.10.77 as 120904 (7pp140)

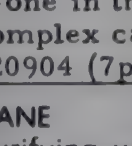
KANE D23 26614W/16 =J7 9011-804
Purifying wool fatty acids obtd. by wool grease saponificn - by reacting with Raney nickel catalysts
KANEBO KK 18.05.73-JA-056168
*E17 (17.05.79) *J50005-404 +C11b-11 C11c-01/08*

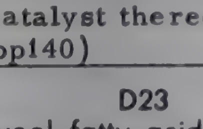
Process comprises adding 0.01-1 wt.% Raney Ni catalysts and reacting at 20-100 kg/cm² H pressure and 20-100°C.

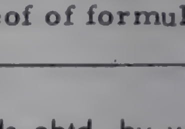
In an example, 5 g crude pale-yellow wood fatty acid (m.pt. 47-52°C, acid value 185, I value 8, and OH value 55) was dissolved in MeOH, mixed with 40 mg Raney Ni, and reacted for 1 hr. at 100 kg/cm² H pressure and 40°C to give 98.7% odour-free cream-coloured fatty (acid value 183, OH value 56.5, I value 7.1, and m.pt. 48-53°). 18.5.73 as 056168 C11b 11/00, C11c 1/08-(17.5.79)
KANEBO CO LTD (6pp) (J5 0005404)

SAKB D23 90656X/49 =J7 9012-465
Preparing 3-hydroxy 4-oxo 4H-pyran and its 2 alkyl derivatives - by epoxidising 3-oxo 3,6-dihydro 2H-pyrans then heating
OTSUKA KAGAKU YAKUHIN (SAKA) 17.07.75-JA-087940
*E13 +P34 (D13) (23.05.79) *BE-844-193 C07d-309/40*

3-Hydroxy-4H-pyran-4-ones of formula (I):


(I)


(II)


(III)

(where R_1 is H or 1-10 C alkyl), are prepd. by epoxidising a 3-oxo-3,6-dihydro-2H-pyran of formula (II) with a peroxide, (where R_2 is H or 1-6C alkyl or acyl) to form a 4,5-epoxy-3-oxo-tetrahydropyran of formula (III), which is then heated.

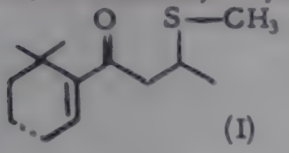
The cpds. are used in perfumes and food flavours. Previous processes for their prepn. have been uneconomic because the starting materials are not readily available, the process are complicated and give low yields with pollution problems. The above process is simpler, easily operated under mild conditions from readily available starting materials, and gives less by-prods. with less pollution problems. 17.7.75 as 087940 C07d 309/40 (23.5.79)
OTSUKA KAGAKU YAKU (5pp)(J5 2012166)

KHPO ★ D23 45376B/24 ★SU -619-503
Oil extraction from seeds - by grinding, removal of metallic impurities in stationary and rotating electromagnetic fields and hot water extn.
KHARKOV POLY 22.10.76-SU-414223
(07.06.78) C11b-01/04

Oily seeds are processed to remove the oil by grinding. Metallic impurities are removed in a stationary and rotating electromagnetic field. The field intensity is raised from 1250 to 1550 Oe over 1-5 min. in the stationary field. The metal is deactivated in the rotating field by adding 0.005-0.009% phosphoric or citric acid as a 0.01-0.5% aq. soln. The oil is then extracted by a hot water treatment. The technique is used in the oil-fat industry.
Lozheshnik, V.K., Lozheshnik, G.N., Bantser, G.V.
Bul. 30/15.8.78. 22.10.76 as 414223 (3pp1047)

INFL D23 67315A/38 =US 4156-662
Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo hexadiene - used as flavourants, prepd. by reacting damascone or damascenone with methyl-mercaptan
INT FLAVORS & FRAGR INC 03.03.77-US-774055 (21.06.78-US-917661)
*E15 (D13) (29.05.79) *DT2808-710 C11b-09*

The aroma of a perfume compsn. is augmented or enhanced by adding pure, synthetic 1-(3-(methylthio)butyryl)-2,6,6-trimethyl-cyclohex(adi)ene of formula (I):


(I)

(where dotted line is a single or double carbon-carbon bond).

(I) produce in perfumes, fruity, floral, natural rose oil like and earthy aromas with potato top notes and minty, tomato vine, Brussel sprout like and woody undertones. 21. 6. 78 as 917661 Div. ex. 4107209 (21pp982)

STUD D23 02874V/02 = US 4156-688

Deodourisation of fats and oils - by treating with carbon dioxide at elevated temp and pressure

STUDIENGES KOHLE MBH 26.06.72-OE-005469

*(29.05.79) *NL7308-796 C11b-03*

Fat or oil contg. odiferous material is deodorised by contacting with CO_2 at 150-250°C and 100-250 atmos. pressure for the selective take-up by the CO_2 of odiferous matl.

Pref. the contacting process is countercurrent. CO_2-contg. odiferous material is contacted with active charcoal absorbent to effect removal of odiferous material, and the CO_2 recycled. Contacting with fat and oil, and with absorbent, are at the same temp. and pressure.

Esp. used to remove the varying amts of phosphatides, mucins, free fatty acids, dyes and substances which affect the odour and flavour when used as foodstuffs. 11. 7. 77 as 814614 (+13. 6. 73;11. 11. 75-US-369689;630827) (2pp931)

POLA D23 39860Y/23 = US 4156-690

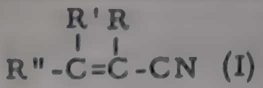
Dialkyl-nitriles prepn. for use as perfume components - by reacting ketones and nitriles using a basic catalyst

POLAK'S FRUTAL WORKS INC 11.12.75-GB-050829

*E16 (E15) (29.05.79) *BE-849-079 C07c-120*

Prepn. of aliphatic nitriles of formula (I) comprises reacting a ketone of formula R'R"CO (II) with a nitrile of formula RCH_2CN (III) in the presence of 0.1-10 moles, per mole of (III), of a basic catalyst selected from alkali(ne earth) metal hydroxides and quat. ammonium hydroxides.

In the formulae, R is 1-15C alkyl(ene)



$R''\text{-}C(R')\text{=}C(R)\text{-}CN$ (I)

free of unsaturation in conjugated ship with the nitrile or the olefini saturation. R' and R" are each a together form 6-15C cycloaliphatic radical. (I) ar as perfume components and exhibit satisfactory fr stability for use in cleanser prods. 1. 12. 76 as 74 (9pp992)

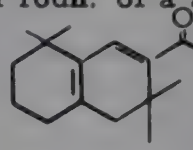
INFL D23 21425A/11 #US

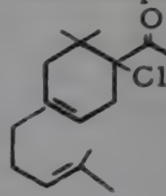
Unsaturated-acetyl-di:methyl-cyclohexane cpds. - interme hexa:hydro-tetra:methyl acetonaphthone derivs. useful c ingredients in perfumes

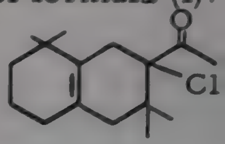
INT FLAVORS & FRAGR INC 11.11.76-US-740890 (28.0 819956)

*E15 (29.05.79) *US4076-749 C07c-45*

Prodn. of a substd. acetonaphthone of formula (I):


(I)


(II)



comprises (a) reacting Cl_2 with mesityl oxide in DM Na_2CO_3 or Na acetate to form $(CH_3)_2\text{-}C(Cl)\text{-}CHCl.C$ CH_3; (b) dehydrohalogenating by heating reaction m at 90-120°C to form 3-chloromesityl oxide; (c) rea with myrcene in the presence of a Friedel-Crafts c at 45-55°C in benzene, toluene, xylene, CH_2Cl_2 or to form a Diels-Alder adduct of formula (II); (d) cy ing (II) with H_3PO_4, dil. H_2SO_4, BF_3 or BF_3 etherat solvent to form a chlorinated octahydronaphthalene of formula (III); and (e) dehydrohalogenating (III) in dimethyl acetamide, N-methyl pyrrolidone, hexam phosphoramide or pyrrole-N-carboxaldehyde in a b 120-250°C.

(I) are useful as vetiver ingredients in perfumes perfumed articles. 7. 3. 78 as 884205 Div. ex. 4108 (28pp982)

See Also

D12 DT 2849129 D13 J5 4054109

D24 : SOAP ; SOAP DETERGENTS

NOTHING TO REPORT

D25 : OTHER DETERGENTS

BADI ★ D25 44034B/24 ★ BE -872-552

Prepn. of strongly alkaline aq. solns. of nonionic surfactants - using a mono-carboxylic acid as third solvent

BASF AG 07.12.77-DT-754359

E19 (06.06.79) C11d

The process comprises mixing the surfactants with aq. alkali and a 6-11C monocarboxylic acid as third solvent in a ratio of third sulvent/surfactant of from 1 to 10:1. A specified co-solvent is 2-ethyl hexanoic acid. The monocarboxylic acid (1pt) is pref. used with 0.05% 1 pt of a maleic anhydride/12-24C unsaturated fatty acid (or triglycerides of these) addition prod.

The use of the co-solvent to prevent sepn. is applicable to a wide range of surfactants whereas present co-solvents are ineffective in a number of applications. 6. 12. 78 as 872552 (10pp597)

HENK D25 74301T/47 = DS 21

Carpet/upholstery cleaning agent - based on surfactants anc dispersed polymethylmethacrylate to avoid rapid soiling aft

HENKEL KG AUF AKTIEN 19.04.71-DT-118820

*A97 (07.06.79) *DT2118-820 C11d-03/20*

Cleansing agent for textiles, e.g. carpets, upholster cushions, comprises 10-70wt.% of alkali salts of sat 10-18C fatty alcohol sulphates and/or 10-20C olefin phates; 5-40wt.% of alkali salts of N- 12-18C alkylar acetic acid and/or N- 12-18C alkylamino propionic a and 10-35wt.% methyl methacrylate polymer in dispe form in aq. or aq.-alcoholic soln.

Compsn. may also contain a polyoxyethylene cond and a propellant such as a propane-butane mixt. Ag has excellent cleansing and foaming properties. 19. as 118820 (4pp068).

· D25 03643T/03 =DS 2132-300

ent components and compounds - of alkyl alkoxy sulphate th 10-16carbon alkyl groups predominating

YL CORP 29.06.70-US-050796

*(07.06.79) *DT2132-300 C07c-141/08 C11d-01/16*

sing agent comprises a mixt. of (a) the ammonium of alkylethoxysulphates (I), (b) at least one tert.- oxide or at least one alkylbenzene sulphonate and at one fatty acid ethanolamide and (c) usual additives.

(I) contain on average three ethoxy units and are ed chiefly straight chain, primary even-numbered C alcohols and 12-60wt.% 10C alcohol.

e agent has improved cleansing power and foam ity. 29.6.71 as 132300 (9pp068).

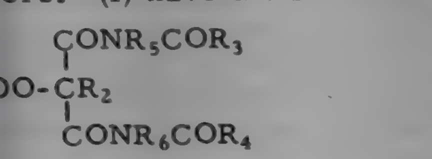
D25 15881A/09 =DS 2738-976

:acyloxy-(N,N')-poly:acyl-malonamide cpds. - used as od. activators allowing bleaching at lower temps. or more bleaching at normal temps.

OD CHIM UGINE KUH 01.09.76-FR-026325

*9 F06 (07.06.79) *BE-858-048 C11d-03/39*

a-acyloxy-N_1N-polyacylmalonamides (I) are used as ators for per-cpds., pref. H_2O_2, and esp. in washing ers. (I) have the formula



$$\begin{array}{l} \quad CONR_5COR_3 \\ \quad | \\ O\text{-}CR_2 \\ \quad | \\ \quad CONR_6COR_4 \end{array}$$

(where each of R_1, R_2, R_3, R_4, R_5 and R_6 is H, straight chain 1-11C alkyl, branched or cyclic 3-12C alkyl, 6-12C aromatic hydroon and in addition R_5 and/or R_6 are $-COR_7$ where R_7 , 1-12C alkyl or 6-12C aromatic hydrocarbon: each cal may have as substituents one or more functional).

) is e.g. a-acetoxy-a-methyl- N_1N'-diacetylmalonde. (I)are storage stable. 30.8.77 as 738976 (3pp068)

★ D25 44164B/24 ★DT 2753-477

le and esp. dish-washing cleansing compsns, - contain alline, finely-divided, water insoluble cation-exchanging ssium aluminosilicate zeolite

ENKEL KG AUF AKTIEN 01.12.77-DT-753477

33 (07.06.79) C11d-03/08

shing and cleansing compsn. contains finely-divided er-insoluble, crystalline, cation-exchanging, bonded er-contg.alkali aluminosilicate, prepd. by hydrother- synthesis. The alkali aluminosilicate contains (I) a eolite prepd. by crystallisation at 100°C, having mol. io $K_2O : Al_2O_3$ 1-7, and consisting of: (a) zeolite F hav- compsn. 0.7-1.1 K_2O 1 Al_2O_3. 1.8-2.3 SiO_2; (b) lite H 0.7-1.1 K_2O. 1 Al_2O_3. 1.8-2,3 SiO_2; (c) zeolite 0.7-1.1 K_2O 1 Al_2O_3. 3.2-4.0 SiO_2; (d) zeolite Z 0.7- K_2O. 1 Al_2O_3. 1.8-2.3 SiO_2; and/or (e) zeolite G 0.7- K_2O. 1 Al_2O_3. 2.3-4.2 SiO_2; or (II) a K zeolite, prepd. crystallisation at 100°C, having mol. ratio $K_2O : Al_2O_3$ -20, and consisting of : (f) zeolite J 0.7-1.1 K_2O. 1 O_3. 1.7-2.1 SiO_2; (g) zeolite M 0.7-1.1 K_2O. 1 Al_2O_3. 9-2.3 SiO_2; or their mixts. with one another or with (I). rticle size of (I) and (II) is 0.1-30 μ. In mixts. of (I) (II), wt. ratio (I) : (II) is 20 : 1 to 1 : 1. Ca bonding pacity of the aluminosilicates is 50-170 mg CaO/g androus aluminosilicate, at 20-90°C. Proportion of (I) d/or (II), w.r.t. compsn. is 5-95 (10-60) wt.%.

Uses include : cleaning instruments, conduits, vessels wood, plastics, metal, ceramic or glass; furniture, lls, floors, and esp. washing textiles and dishes. The gher cost of K aluminosilicates, compared with Na zeoes A or X, is more than compensated by their improved shing or cleansing power. Good results are also obtd. the presence of increased electrolyte quantities. The mpsns. can be used for washing with sea-water. 12.77 as 753477 (24pp200)

NK ★ D25 44187B/24 ★DT 2753-679

able aq. washing and cleaning compsn. - contains catalase, ionic surfactant and nonionic polygonal ether deriv. surfactant

HENKEL KG AUF AKTIEN 02.12.77-DT-753679

A60 E19 G04 (D16) (07.06.79) C11d-03/38

table, liq., catalase-contg. enzyme compsn., present as n aq. soln. or suspension, contains, by wt., (A) 0.5-10 5)% of $\geqslant$ 1 water-soluble anionic surfactant consisting of a sulphonate and/or sulphate as an alkali metal-, ammonium or organic ammonium salt, (B) 2-50 (5-20)%of $\geqslant$ 1 nonionic polyglycol ether deriv. surfactant and (C) a catalase quantity such that compsn. activity is 500-50000 (3000-300000) international units U/ml. Wt. ratio (A) : (B is 1 : 1 to 1 : 100 (1 : 2 to 1 : 20).

The compsns. can be used (i) for washing and cleansin and partic. in dry-cleaning, simultaneously with a pr e-cp bleaching process, to prevent damage by uncontrolled O-attack, and (ii) in polymer foam prepn. using peroxide-released O_2 as propellant gas. The compsns. have high storage-stability, i.e. catalase activity is fully retained several weeks or months at <30°C. 2.12.77 as 753679 (14pp200)

FARH ★ D25 44361B/24 ★EP ---2-282

Sodium tri:poly:phosphate for detergent slurry use - prepd. by adding oxidising agent to impure wet process phosphoric acid before concn.

HOECHST AG (KNAP) 05.12.77-DT-754020

E34 (13.06.79) C01b-25/40

D/S: E(BE, CH, DT, FR, GB, NL).

Sodium tripolyphosphate is prepd. from organic impurity-contg. wet process phosphoric acids neutralised up to the corresponding Na : P mol. ratio, which are concd. from P_2O_5 contents <20 wt.% to 27-32 wt.%, by spraying the orthophosphate solns. or suspensions obtd., in the presence of oxidising agents, in a single step, into a fuel gas-heated spray-tower at 300-500°C. Novelty consists of adding the oxidising agents to the wet process phosphoric acids before concn.

The product is used as builder in the prepn. of detergent slurries and has a suitable hydration behaviour, i.e. in hydration test, (ROH), the prod. causes a temp. difference $\geqslant$ 7°C between the temp. measured after 1 min. and after 5 min.

4.12.78 as 101544 (14pp200).

(G) ISR: DT2522220; BE-663349; DS1082582; FR1510681 US2916354; DS-379295.

PROC ★ D25 44369B/24 ★EP ---2-293

Detergent tablet contg. core of alkaline builder - coated with molten hydrated salt, esp. for automatic dishwashers

PROCTER & GAMBLE CO 15.02.78-GB-006004 (29.11.77-GB-049614)

A97 E34 (13.06.79) C11d-03/39 C11d-17

D/S: E(BE, DT, FR, GB, NL).

Detergent tablet has a core of alkaline builder salt (I) and a coating of hydrated salt (II) of m.pt. 30-95°C (esp. 30-75°C) which has been applied as a melt.

Specified (II) are hydrated Na acetate, metaborate, orthophosphate, Na_2HPO_4, NaH_2PO_4, Na-K tartrate, K-Al sulphate and $CaBr_2$, esp. a 3 : 1 - 1 : 3 w/w mixt. of Na acetate trihydrate and Na metaborate tetrahydrate.

The molten (II) may include, in suspension, an organic liq. (esp. a nonionic surfactant or silicone suds suppressor) sorbed on a carrier.

Used esp. in automatic dishwashing machines.

Coatings are easily applied, do not interfere with cleaning action and are dissolved completely and quickly.

16.11.78 as 200307 (19pp1251).

(E) ISR: US3503889; OE239943; GB1080066; GB0989683; GB1191356.

BADI D25 78105A/43 =EP ---2-380

Reclaiming stained cellulose contg. fabrics - with compsns. contg. detergent, and oxygen releasing and chlorine-releasing agents

BASF WYANDOTTE CORP 05.12.77-US-857675

*A35 (A11 A23) (13.06.79) *US4120-650 D06l-03/02 +C11d-03/39*

D/S: E(BE, DT, FR, GB, LU, NL, SW).

Stained cellulosic textiles (or their polyester blends) are reclaimed by bleaching in a soln. contg. $\geqslant$ 1 anionic or nonionic surfactant at 0.01-0.25 wt.%; 0.01-1 wt.% chlorine-releasing agent (I) and 0.01-2 wt.% oxygen-releasing agent (II).

The soln. has pH 9-12 and bleaching is at 160-190°F for 5-30 min. Pref. before treatment the fabric is treated with a rust-removing acid sour (esp. oxalic acid) at pH 1-7 and 120-180°F for 2-15 min. Opt. after bleaching the fabric is treated with an acid sour contg. Na_2SiF_6 or $NaHF_2$.

Alternatively treatment with (I) and (II) is carried out in separate stages.

Used esp. for cotton-polyester and rayon-polyester stained with blood and opt. having a synthetic resin, crease-resistant finish. There is syngeristic enhancement of stain removal compared with use of only (I) or only (II).

4.12.78 as 300734 (25pp1251).

(E) ISR: FR1442677; FR2186567; FR1476920; FR1485163; FR1568918; DS1279635; US3281202.

BATT ★ D25 44432B/24 ★EP ---2-423

Automatic washing machines - with integral electrolytic peroxide generators, for efficient bleaching action without subsequent pollution problems

BATTELLE MEMORIAL 06.12.77-CH-014876

E36 F06 J03 (13.06.79) C01b-15/02 C25b-01/30 D06f-35

D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW).

An automatic washing machine is fitted with appts. for generating hydrogenperoxide ions in situ for release into an aqueous wash when required to act as a bleaching agent. The ions are generated electrolytically in alkaline solution by reduction of oxygen at an alkaline cathode.

Eliminates use of relatively unstable prefabricated peroxide reagents added either separately or premixed with detergent. Generates less of a persistent environmental threat via wash waste by-products than use of perborate bleaching agents, and is effective at lower water temps., i.e. < 80°C, reducing the thermal energy necessary for effective combination of washing and bleaching clothes. Separate generation for injection after the start of the wash can avoid premature deactivation of co-reagents in the detergent preparation used, e.g. enzymes. Freshly generated hydroperoxy ions are more effective cleaning and bleaching agents by a factor of about 5, than inhibited substituted peroxides used in premixed detergent compositions required to be suitable for storage prior to use.

4.12.78 as 810025 (37pp515).

(F) ISR: FR1335541; US3969201; US3616442.

PROC ★ D25 44572B/24 ★J5 4039-390

Peroxy acid fibre bleaching compsn. - contg. di:peroxide-dodecane-di:acid, granular buffer, heavy metal chelate and solubilising agent

PROCTER & GAMBLE CO 03.06.77-US-803107

A97 E17 F06 (E34) (26.03.79) C09k-03 C11d-03/39 D06l-03/02

The compsn. comprises a homogeneous mixt. of 1-60 wt. % of granular diperoxide-dodecane-di-acid and 2-90 wt. % of granular buffer agent (e. g. alkali metal carbonate, alkali metal bicarbonate, alkali metal phosphate, alkali metal pyrophosphate, borate salt and silicate salt or mixt. thereof) together with balance wt. % heavy metal chelate reagent and a solubilising agent. If the peroxy acid bleaching compsn. is dissolved in water, the buffer agent is able to maintain its aq. soln. at pH 8. 8-9. 2. The solubilising agent is $\geqslant 1$ of sodium sulphate, cellulose deriv. starch, surfactant.

The compsn. is used for bleaching a textile of natural fibres or synthetic resin fibres. It is free of chlorine component so does not impair the quality of the textile.

30. 5. 78 as 064876 (8pp15)

PROC ★ D25 44573B/24 ★J5 4039-411

Laundry detergent compsn. for removing stains - contains polyoxyethylene deriv. nonionic surfactant, cationic surfactant and phosphate salt

PROCTER & GAMBLE CO 26.06.78-US-919341 (29.06.77-US-811221)

A97 E19 (A25) (26.03.79) C11d-01/83

The compsn. comprises a homogeneous mixt. of about 5 to 100 wt. % nonionic surfactant of general formula: $R(OC_2H_5)n$ OH and a cationic surfactant of formula- R^1mR^2xY1Z and $\leqslant$ 20 wt. % of phosphate salt; The compsn. is entirely free from oleo type of hydrocarbon, polyglycol-ether-diester of fatty acid and other cationic material. If th compsn. is dissolved in water it has pH $\geqslant$ 6. 5 or m

In the formulae, R is 8-22C prim. alkyl or sec. n is an integer. R_1 is an organic chain substd. with phenyl or hydroxy gps. and contg. alkyl gp(s) or alke gp(s), m = 1-3, R_2 is 1-4C alkyl carbon atoms, hydr alkyl gp. or benzyl gp., x = 0-11., Y is an analogou to R_1 and R_2 having 1-22 C atoms, 1 = 1-2 and Z is a

29. 6. 78 as 079226 (+17. 11. 77-US-852428) (32pp15)

PROC ★ D25 44574B/24 ★J5 40

Laundry deterging compsn. - contg. nonionic surfactant, c surfactant and phosphate salt builder

PROCTER & GAMBLE CO 26.06.78-US-919344 (29.06. 811218)

A97 E19 (A25) (26.03.79) C11d-01/83

Compsn. comprises a homogeneous mixt. (a) $\geqslant$ 80 w nonionic surfactant having HLB number 5-17, of forn $R(OC_2H_4)nOH$; and cationic surfactant of formula R_2-($(R_3)n$-Z_2-$(CH_2)m$-$N^+(R_1)_2$-R_1X^- (II) and (b) 20 wt. % ph phate salt builder when dissolved in water of laundry, compsn. has pH ~11; compsn. is free from oleo-typ drocarbon.

In the formulae, R is 8-22C prim. or sec. alkyl; integer 2-12; R_1 is 1-4C alkyl or hydroxyalky; R_2 is 5 alkyl; alkenyl, alkylbenzyl or alkylphenyl; R_3 is alk(e a and n (in (II)) are 0 or 1; m is integer 1-5, Z' and each ester or amide gps.; and X is an anion impartin dispersibility.

Compsn. is partic. suitable for cleaning soiled tex

29. 6. 78 as 079229 (30pp15)

PROC ★ D25 44575B/24 ★J5 403

Detergent compsn. for cleaning textiles - comprises nor surfactant, cationic surfactant, fatty amide surfactant and phos salt builder

PROCTER & GAMBLE CO 26.06.78-US-919340 (29.06.7 811419)

A89 E19 (A25) (26.03.79) C11d-01/83

Detergent compsn. comprises a homogeneous mixture consists of 5-100 wt. % of (a) a nonionic surfactant of ula $R(OC_2H_4)nOH$ having HLB number of 5-17, (b) cati surfactant of formula: $R^1m. R^2X. Y_L$. Z and (c) a fatty surfactant and balance (20 wt. % or less) of phosphate builder.

In the formulae, R is primary or secondary alkyl, ing 8-22 and n is 2-22; and R_1 is an organic chain cont alkyl gp. or alkenyl gp. and having $\leqslant$ 3 phenyl or hyd substit, m is 1-3; R_2 is 1-4C alkyl, hydroxy. alkyl or zyl, X is 0-11, Y is a gp. of $-\overset{|}{\underset{|}{N^+}}-$ or $-\overset{|}{\underset{|}{P^+}}-$ or $-\overset{+}{\underset{|}{S}}-$, 1-2 and Z is an anion.

The compsn. is very effective for cleaning a textile stained with soil spots with a laundry machine. 29. 6. as 079230 (32pp15)

SHIV ★ D25 44591B/24 ★J5 405

Cleaning compsn. - contg. sulphuric ester of higher alc alkylene oxide adduct and nonionic surfactant

NEW JAPAN CHEM 07.10.77-JA-121042

A97 E17 (A25) (28.04.79) C11d-01/83

A cleaner compsn. consists of (A) sulphuric ester of h er alcohol-alkyleneoxide adduct and (B) nonionic surfa or a compsn. which consists of other surfactant as the main component, cpd. (A) and cpd. (B).

Useful for the cleaning of bath room, baths, wash basins, washing machine, etc. Formation of scums d divalent metallic ions is prevented. 7. 10. 77 as 12104 (3pp170)

KOEI ★ D25 44592B/24 ★J5 405

Cleaning compsn. for domestic bath - comprising so percarbonate or perborate, sodium hydrogen carbonate nonionic surfactant

KOEI CHEM IND KK 07.10.77-JA-121150

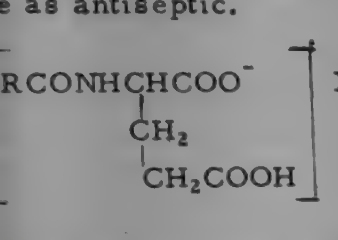
E34 (28.04.79) C11d-10/02

A cleaner for a household bath comprises sodium perc bonate or sodium perborate, sodium hydrogencarbonat and nonionic surfactant. The compsn. is effective for cleaning pipes and walls of household bath heaters whi are stained with fatty material and material from the h man body. The stains are cleansed easily by dissolvi

mpsn. in the water of bathtub in amt. of 0.5-0.25
It is harmless to the human body and noncorrosive allic materials.
an example, 70 wt.% of sodium peroxocarbonate or n peroxoborate. 29.9 wt.% of sodium hydrogencarb- and 0.1 wt.% of nonionic surface active agent are . 7.10.77 as 121150 (3pp170)

★ D25 44746B/24 ★J5 4055-010
ng agent for amine(s) - contains (N)-long chain acyl-L-ate and an organic acid
JBO T 12.10.77-JA-121447
E19 (01.05.79) C11d-01/10 C11d-03/20 C11d-10/02

ong-chain acyl radical contains 6-18C; N-long and utamate is a monosodium salt or mono-triethanol- salt. The amines, when washed with the purifying do not damage the skin.
ef. compsn. consists of a cpd. of lowing formula (I) monosodium N-lauroyl-L-glutamate etc.), an or- acid (e.g. citric acid, tartaric acid, malic acid, c acid, etc.) and opt. hydroxypropyl- or hydroxy- yl cellulose as viscosity modifier and sodium dehydra- e as antiseptic.



$$\left[\begin{array}{l}\mathrm{RCONHCHCOO^-}\\ \quad\ \ |\\ \quad\ \mathrm{CH_2}\\ \quad\ \ |\\ \quad\ \mathrm{CH_2COOH}\end{array}\right] X^+$$

(I)

In (I) R is 6-18 C alkyl; and X is Na or $(CH_2CH_2OH)_3NH$. Although the pH of (I) is generally 4-5, a buffer soln. is obtd.
1-5 wt.% organic acid is added, and the pH of the is adjusted to 4-3.5. Thus, it serves as a neutrali- agent for amines. It has good detergency. 12.10.77 21447 (3pp128)

★ D25 45046B/24 ★J5 4056-612
gent compsn. for use on synthetic and natural fibres - contains on prod. of protein hydrolysate and glycidyl- or hydroxypropyl tri:alkyl ammonium salt as redeposition inhibitor
ON FAT & OIL KK 13.10.77-JA-122609
3 (E16) (07.05.79) C11d-03/37

tergent compsn. consists of surfactant, builder, and entional auxiliaries. It further contains a reaction uct contg. 2-5 wt.% quart. N which is obtd. by reac- protein hydrolysate with glycidyl trialkyl ammonium or 3-halogeno-2-hydroxypropyl trialkylammonium as soil redeposition inhibitor.
pecifically the protein hydrolysate is a peptide of mol. 100-50,000. The amt. of inhibitor used is pref. 0.1-5 %. The compsn. is used as detergent for synthetic es such as polyamide, polyester, and polyolefin fibres, natural fibres such as cellulose and regenerated cell- e fibres. 13.10.77 as 122609 (8pp126)

D25 40635T/25 =J7 9011-805
et washing liquid - contg a quaternary ammonium oxyethylene compd
INILEVER NV 14.12.70-GB-059272
A97 E13 (A25 E16) (17.05.79) *BE-776-620 C11d-01/62

. compsn. contains > 2 wt.% (pref. 5-30%) of a quat. monium polyoxyethylene cpd. contg. a radical having ethylene oxide units per chain. The cpd. is $R^1R^2R^3N^+$-$)_n$ X^- where R^1 is 8-18C alkyl (contg. phenylene), R^2 methyl or benzyl; R^3 is methyl or polyoxyethylene; n is and X is an anion, OE is oxyethylene units.
An example is $C_{17}H_{35}CONHCH_2CH_2\,CH_2$(ethylene oxide)$_{25}$-$_2CHOHCH_2N^+(CH_3)_2C_{18}H_{37}Cl^-$. 14.12.71 as 100733 g. 14.12.70-GB-059272) C11d 1/62-(17.5.79) UNILEV- N.V. (7pp)(J4 7012325)

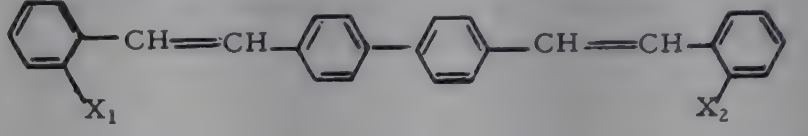
DS D25 47975W/29 =J7 9011-806
venting yellowing of washed clothing - with detergent contg. in radical formation inhibitor, oxidn. protector and oxygen-type aching agent
KAO SOAP KK 27.00.74-JA-004220
E14 (E15) (17.05.79) *DT2460-016 C11d-03/39

tergent compsn. for textiles contains (a) 0.001-1 (0.05- 7) wt.% of > 1 oxidn. protective agent, (A), which prev- s the formation of chain radicals, namely 4, 4'-butylid- e-di-(6-tert.-Bu-3-Me-phenol), 2,2'-butylidene-di-(6-tert.-Bu-4-Me-phenol), a cresol or phenol contg. 1 or 2 styrene gps. or 1,1'-di-(4-hydroxy-phenyl9cyclohexane, and (b) 0.5-50 (3.30)wt.% oxygen-type bleaching agent (B), in addn. to main components consisting of an anionic and/or non-ionic organic surfactant and a water-soluble inorganic builder salt.

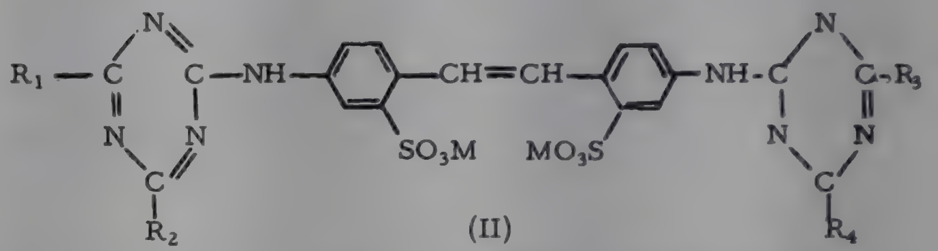
Useful as domestic wash detergent, to prevent yellowing of washed clothing or as bleaching agent. (A) and (B) act synergetically. (A) prevents radical decompsn. of (B) before (B) acts on yellowing-causing dirt and also prevents self-oxidn. of dirt-particles, but cutting off chain-reaction system of self-oxidn. (B) may be Na perborate, esp. Na percarbonate or adducts of H_2O_2 with inorganic metal salts, e.g. $4\,Na_2SO_4.NaCl.2H_2O_2$. 27.12.73 as 004220 C11d 3/395-(17.5.79) KAO SOAP KK (4pp)(J5 0097607)

KAOS D25 15867X/09 =J7 9011-807
White synth detergent compsn - contg aromatic mono- and/or dienes fluorescent bleach and a polyhydric alcohol
KAO SOAP KK 03.07.74-JA-076026
E24 (E23) (17.05.79) *J51005-308 C11d-03/42

A white synthetic detergent compsn. comprises (in p.b.w.) ≥ 0.15 fluorescent bleaching agent of general formula (I) or ≥ 0.25 (II) or a mixt. with 0.1-0.5 polyhydric alcohol having over 3 OH gps. or a saccharide, and 100 anionic synthetic detergent:



(I)



In the formula X_1 and X_2 are $-SO_3M$ or a halogen atom; R_1-R_4 are 1-4C alkoxy gp., an alkanolamine, an aromatic amine, or morpholine etc. ; M being H or an alkali metal or an ammonium gp. 3.7.74 as 076026 C11d 3/42 (17.5.79) KAO SOAP KK (5pp)(J5 1005308)

KAOS D25 23921Y/14 =J7 9012-485
Granulated detergent mixt. - contg. surfactant tending to agglomerate and carboxylic acid prepd. from polyalkylene glycol and acid anhydride
KAO SOAP KK 30.09.75-JA-117816
A97 E19 (23.05.79) *DT2643-699 C11d-03/37

Compsn. contains, by wt., (1) as active component, 2-40 (6-25)% first surfactant, having tendency to cake together, and (2) as component preventing caking together, 0.2-20 esp. (3-8)% carboxylic acid, or its alkali salt, prepd. by non-catalysed reaction, at 50-100°C, of (A) a polyalkylene glycol with (B) an acid anhydride. (A) is solid at room temp. Mol. ratio (A):(B) is 1:2-1:1. Mol. ratio(2):(1) is 1:10 -3:2.

(A) may be a polyethylene glycol having ave. mol. wt. 2000-10000(4000-8000), or a nonionic surfactant having formula $HO(CH_2XH_2O)_a(CHMeCH_2O)_b(CH_2CH_2O)_cH$ (where a, b, and c are integers satisfying conditions $140 < a + c < 200$ and $30 \leqslant b \leqslant 40$). (B) may be maleic, phthalic or succinic anhydride.

Compsn. also contains (3) 0-20% of 2nd surfactant consisting of 10-6 C alkyl-benzene sulphonate, or 11-16C n-alkyl sulphate and/or 10-20 C α-olefin sulphonate, and (4) 10-40% water-soluble inoganic, alkaline or neutral builder and/or organic builder.

Compsns. combine resistance to hard water and to agglomeration. 30.9.75 as 117816 C11d 3/37 (23.5.79) KAO SOAP KK (8pp)(J52041613)

CARL ★ D25 45212B/24 ★NL 7900-399
Washing agents contg. skin softener - comprising (poly)ester from cycloaliphatic or aromatic poly:carboxylic acid and a polyoxyalkylene ether
CINCINNATI MILLING 18.01.79-NL-000399 (13.02.68-NL-002006)
A97 E19 (31.05.79) A61k-07/40 C11d-03/20

Washing agents contain a wash-active agent and a skin softening agent comprising an ester or polyesterification prod. of cycloaliphatic or aromatic polycarboxylic acids with at least 5-7-membered C rings and OH-contg. polyoxalkyleneethers with 2-30 oxyalkylene units, in which the alkylene gp. contains 2-4C.

The (poly)ester prods. have excellent skin softening effect and give washing agents with no or much reduced irritant effect on the skin. 18. 1. 79 as 000399 Div. ex 6802006 (8pp513).

GRAC ★ D25 45581B/24 ★ US 4156-592

Expandable compressed reticulated polyurethane foam article - contg. fabric softener slowly released in wash or rinse cycle of automatic washing machine

GRACE W R CO 24.07.78-US-927211 (15.04.77-US-787929)

A97 E19 F06 (29.05.79) D06m-13/46

An expandable compressed reticulated polyurethane foam article is impregnated with and bound in its compressed state by a fabric softener of softening pt. >38°C and being water dispersible at 20-85°C. The article is used in a claimed process for conditioning fabrics in a wash or rinse cycle of an automatic washing machine.

The foam articles may be compressed sheets or wafers of thickness 0. 01-0. 25 inches that are easily packaged and stored. In use, they slowly return to their original form with a slow release of fabric softener from the foam in amts. of 80-100%. 24. 7. 78 as 927211 (5pp966)

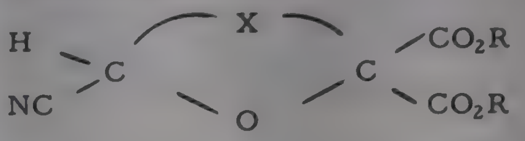
MONS D25 78212A/43 =US

6-Cyano-tetra:hydro-pyran-2,2-di:carboxylate(s) - interme
tri:carboxylate(s), useful as detergent builders, sequestran

MONSANTO CO 05.01.77-US-756946 (27.07.78-US-928

*E13 (29.05.79) *US4120-874 +C07d-307/24*

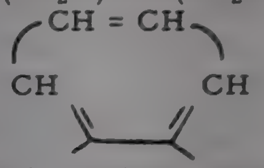
Dicarboxylic acid derivs. of formula (I):



(I)

are novel ar
in the prodn
water soften
detergent bu
Ca and Mg s
trants, scal
vers, etc.

X is $-(CH_2)_2-$, $CH(CO_2R)-CH(CO_2R)-$, $CH_2-CH(C$
$CH(CO_2R)-CH_2-$ or



R is alkali metal, NH_4^+, $NH(CH_2CH_2OH)_3^+$, or opt.
ed or straight lower alkyl of ⩽ 20C.

The parent patent describes cpds. (I), where R
alkyl and X is $-(CH_2)_3-$. 27. 7. 78 as 928333 Div. ex
4120876 (6pp393)

See Also

D13 EP --2202

CPI INDEXES

ERTING PATENTEE INDEX (II)

ly by section and overall, lists all current patents in
tee code order and, within a given patentee, in earliest
ty date order. The first line gives patentee code,
st priority date, patentee name, CPI classes and finally
urrent patent number. The second line gives the first
of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

I CLASS INDEX (IV)

ekly only. Headings are all the CPI
ses within the section to which an
ting Bulletin relates, arranged in
erical order. Posted under each class
ding is a list, in country then patent
ber order, of all basic or equivalent
uments referenced or cross-
renced under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

ASIC NUMBER INDEX (V)

ekly by section and overall, lists all
ries by accession number. Each
ding consists of the accession
ber in bold, followed by the CPI
tion letters. There then follows a
of all the family members,
mencing with the basic and
shing with the current week's
ent. For each family member the
week of issue is quoted, and a
s sign indicates that a multiple
ority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF  7502-292  X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or ≠ sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                                 49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                            49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                                 48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX 1

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguis accepted West German specifications (DAS) from unexamined applications (OLS) which are given the nor DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7
Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

A 02.09.77 AGA HEATING AB D15 =PT --68-499
mbined biological dry toilet and waste water purifier - 20411B/11
N 11.10.68 AGENCY OF IND SCI TECH D17 (D16) *J7 9012-536
ne sugar prepn. from sugar beet - 45180B/24
N 25.11.69 AGENCY OF IND SCI TECH D17 E13 (D16) =J7 9012-540
zymatic prodn of fructose in presence of a - 37518S/22
N 03.06.70 AGENCY OF IND SCI TECH D17 E13 (D16) *J7 9012-538
zymatic isomerisation of glucose to fructose - 45181B/24
N 05.10.77 AGENCY OF IND SCI TECH A35 D16 E14 (A13 D15) *J5
-778
icrobiological decomposition of styrene oligomer - 44942B/24
A- 03.10.77 AG PATENTS LTD D16 E17 *GB 2009-231
pt. branched alkanoic acids and salts - 44507B/24
O- 03.09.75 AGROTECHNIKA NP D15 =DS 2639-770
orizontal cylinder water purifying reactor - 05682Y/04
A/ 05.09.77 AIDA H B05 D16 =J5 4055-787
ermentative prodn. of coenzyme/Q - 22325B/12
L 13.09.77 AIR LIQUIDE L' A60 D23 E13 (A14) *FR 2402-702
hermally stable epoxidised oil partic. soybean oil - 44457B/24
N 29.12.70 AJINOMOTO KK D16 E13 *J7 9012-539
ylose prepn. from oat husks - 45182B/24
E- 05.12.77 ALFELDER EISENWKE C D15 *DT 2754-070
ewage sludge treatment by digestion, pressing, drying, pelletising - 4218B/24
BS 09.09.77 AMERICAN BRANDS INC D18 E33 =FR 2402-422
obacco foils formed from suspensions - 22296B/12
CY 27.10.77 AMERICAN CYANAMID CO B03 C02 D13 #NO 7703-675
Growth stimulating feed additive contg. nitrovine - 33426A/19
CY 31.10.77 AMERICAN CYANAMID CO B03 C02 D13 #DK 7704-827
Growth stimulating feed additive contg. nitrovine - 33426A/19
MI= 03.01.77 A MED MICROBIOL EP D16 *SU -619-510
Endomycopsis bacterial strain - 45383B/24
MO 07.12.77 AMERICAN MONITOR CORP B04 D16 *BE -872-547
Enzymatic determination of tri-glyceride(s) in serum - 44032B/24
SA 28.09.77 AMERICAN STERILISER CO D15 *US 4156-621
Recycling of dish washer rinse water - 45594B/24
DR/ 05.07.77 ANDREI W D15 *US 4156-631
Domestic still for use with kettle - 45600B/24
NIS 21.09.77 ANIC SPA B05 D21 (D22) =J5 4055-723
Mosquito-repellent agents - 24240B/13
NIS 06.12.77 ANIC SPA A96 B07 D21 (B04) =BE -872-562
Base for dermatological ointments and creams - 44325B/24
NIS 06.12.77 ANIC SPA B04 D21 =BE -872-565
Anticariogenic dentifrice compsns. - 44323B/24
NIS 06.12.77 ANIC SPA B04 D21 *DT 2852-792
Anticariogenic dentifrice compsns. - 44323B/24
NIS 06.12.77 ANIC SPA A96 B07 D21 (B04) *DT 2852-809
Base for dermatological ointments and creams - 44325B/24
NIS 06.12.77 ANIC SPA A96 B07 D21 (B04) =GB 2008-947
Base for dermatological ointments and creams - 44325B/24
NIS 06.12.77 ANIC SPA B04 D21 =GB 2008-948
Anticariogenic dentifrice compsns. - 44323B/24
RAI/ 12.09.77 TADASHI ARAI B04 D16 =FR 2402-665
Antibacterial and antitumour saframycin(s) A, B, C, D and E - 22518B/12
SAE 06.10.77 ASAHI ELECTROCHEM IND KK D13 E24 *J5 4054-141
Chlorophyll sepn. using waste terra obtd. by sal seed fat purificn. - 44605B/24
SAF 07.09.76 ASAHI DOW KK A89 D17 E13 =US 4156-618
Separating sugar mixt. contg. ketose and aldose cpds. - 21846A/12
SAH 08.10.77 ASAHI CHEMICAL IND KK A11 D13 (A97) *J5 4054-169
Water-dispersible compsn. for stabilising food - 44621B/24
SAH 08.10.77 ASAHI CHEMICAL IND KK D13 *J5 4055-762
Ice cream contg. milk solid, sweetener, emulsifier, water and complex - 44939B/24
SAH 08.10.77 ASAHI CHEMICAL IND KK D13 *J5 4055-763
Drink compsn. based on water, fat, cocoa and sweetener - 44940B/24
SAH 08.10.77 ASAHI CHEMICAL IND KK D13 *J5 4055-764
Dressing compsn. - 44941B/24
SAH 11.10.77 ASAHI CHEMICAL IND KK D13 (D17) *J5 4055-054
Water dispersible complex for ice-cream and desserts - 44769B/24
SAH 13.10.77 ASAHI CHEMICAL IND KK D15 H05 *J5 4056-074
Treating acidic waste soln. contg. ammonium sulphate - 44980B/24
ASKO- 02.09.77 ASKO-UPO OY D15 =PT --68-499
Combined biological dry toilet and waste water purifier - 20411B/11

ABW 01.12.77 BABCOCK BSH AG D15 J01 *DT 2753-516
Processing of effluents from flue gas washing plants - 44173B/24
BADI 23.09.77 BASF AG D25 E16 =GB 2009-220
Stabilising nonionic surfactant against alkali discolouration - 23957B/13
BADI 05.12.77 BASF WYANDOTTE CORP A35 D25 (A11 A23) =EP ---2-380
Reclaiming stained cellulose contg. fabrics - 78105A/43
BADI 07.12.77 BASF AG D25 E19 *BE -872-552
Prepn. of strongly alkaline aq. solns. of nonionic surfactants - 44034B/24
*BAGS/ 21.09.77 BAGSAWE K D B04 D16 J04 *GB 2009-401
Incubation appts. for biological samples - 44533B/24
*BAKP 15.02.78 BAKER PERKINS LTD D11 *BE -874-204
Bowl mixer with rotary and planetary action.agitator - 44099B/24
BALS/ 01.12.77 BALSANO A R D13 =DT 2851-230
Aq. bath for removing surface contamination from foodstuffs - 25941B/14
BALS/ 01.12.77 BALSANO A R D13 =GB 2009-222
Aq. bath for removing surface contamination from foodstuffs - 25941B/14
BATT 22.09.77 BATTELLE DEV CORP C03 D16 =J5 4055-722
Viral and bacterial microbial insecticide micro-granule - 23954B/13
*BATT 06.12.77 BATTELLE MEMORIAL D25 E36 F06 J03 *EP ---2-423
Automatic washing machines - 44432B/24
*BAUM- 10.02.78 BAUMGARTNER PAPIERS D18 *BE -874-039
Paper tube for making hand-filled filter tipped cigarette - 44059B/24
BEEC 20.04.74 BEECHAM GROUP LTD B02 C02 D16 =CA 1055-395
Clavulanic acids and derivs - 72840W/44
BEGH- 13.09.77 BEGHIN-SAY A96 D22 F07 (A14) =FR 2402-474
Mfg. absorbent flexible sheet for baby's napkins etc. - 76400A/43
BEHW 27.10.77 BEHRINGWERKE AG B04 D16 =DK 7804-772
Stabilising meningococcal polysaccharide for use in vaccine - 33342B/18
BEHW 27.10.77 BEHRINGWERKE AG B04 D16 =GB 2009-198
Stabilising meningococcal polysaccharide for use in vaccine - 33342B/18
BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 =PT --68-572
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04
BENC 28.10.77 BENCKISER-KNAPSACK D15 E11 F06 (F09) =DK 7804-815
N-Sulpho-hydroxy-alkane amino-alkane phosphonic acids - 35518B/19
BERP 28.10.77 BEROL KEMI AB D15 E11 =DK 7804-814
Removing oil fat, wax, etc. from a surface - 35799B/19
BIAN/ 06.11.75 BIANCHI J S D15 #CA 1055-411
Prepn of red and rose wines - 11131X/06
BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =DK 7803-598
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18
BOLI 24.10.77 BOLIDEN AB D15 =NO 7803-567
Purificn. of water with magnetic sepn. of pptd. sludge - 31595B/17
BRBE- 12.09.77 BRITISH BEEF CO LTD D12 #FR 2402-413
Cutter for animal horn - 76942A/43
*BREA= 11.11.76 BREAD BAKING IND D16 *SU -619-504
Microorganism cultivation automatic control system - 45377B/24
BRPE 20.03.75 BRITISH PETROLEUM LTD D16 =GB 1547-373
Growing photosynthetic plant cells or bacteria - 04365Y/03
BRTA 11.07.75 BRIT AMER TOBACCO LTD A97 D18 F07 (A18) =CA 1055-355
Binding cigarette filter fibres using emulsified resins - 88833X/48
BRTO 20.05.76 BOC LTD D15 J02 =US 4156-650
Injection of compressed gas into liq. - 86907Y/49
BRUL/ 06.12.77 BRULE R D13 #DT 2754-235
Freezable sweet souffle prepn. - 08203A/04
BUCL 25.10.77 BUCKMAN LABS INC A97 D15 E11 M14 =NO 7800-906
Compsn. used to prevent corrosion and incrustation in aq. systems - 44129A/25
*BURR- 10.02.78 BURRUS F J & CIE D18 *BE -874-039
Paper tube for making hand-filled filter tipped cigarette - 44059B/24

*CALD- 22.02.79 CALDEIRARIA INOX B04 C03 D16 *BR 7801-164
Continuous emulsifier for oily vaccines - B/24
CARG- 22.10.77 CARGO FLEET CHEM CO D25 E19 F06 =DK 7804-680
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
CARG- 22.10.77 CARGO FLEET CHEM CO D25 E19 F06 =NO 7803-506
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
*CARL 13.02.68 CINCINNATI MILLING A97 D25 E19 *NL 7900-399
Washing agents contg. skin softener - 45212B/24
CARL- 04.02.74 CARLTON & UTD BREWE D16 E12 =CA 1055-412
Isohumolone-metal complex and alkali metal cpd. beer-bittering compsn. - 40991W/25
CARO 02.12.77 CARBORUNDUM CO D15 E36 J01 =EP ---2-275
Hard, granular, activated carbon for water treatment - 35107B/18
CARO 02.12.77 CARBORUNDUM CO D15 E36 J01 =GB 2009-126
Hard, granular, activated carbon for water treatment - 35107B/18
CARR- 09.09.77 CARRIERES & FOURS C D16 =FR 2402-448
Treating household rubbish to be spread on a tip - 19666A/11
CARV 29.10.71 CARNAUD & FORGES BA D13 =US 4156-741
Boiling/sterilizing method - 27713U/20
CECA- 12.09.77 CECA SA A11 D13 K04 (D17 D22) =FR 2402-678
Aq. gels based on de:acetylated xanthan and galactomannan - 22429B/12
CEDE- 11.07.77 CEDERROTHS AB D22 =BR 7803-026
Adhesive medical plaster with impregnated gauze dressing - 80223A/45
CGDA 22.11.68 CIE GEN AUTOMATISME A18 D16 =DS 1958-678
Growth of bacteria - 35838R/20
*CHEC/ 02.04.74 CHECHURA A A D16 *SU -619-505
Microorganism cultivation appts. - 45378B/24
CHIY 14.01.74 CHIYODA CHEM ENG CO D15 =J5 0102-172
Solid-liq. sepn. in waste water treatment by activated sludge process - 45127B/24

*CHIY 14.01.74 CHIYODA CHEM ENG CO D15 *J7 9011-986
Solid-liq. sepn. in waste water treatment by activated sludge process - 45127B/24
*CHIY 08.10.77 CHIYODA CHEM ENG CO D15 *J5 4054-453
Microbiological waste water purificn. - 44664B/24
*CHUV= 16.09.76 CHUVASH AGRIC INST D14 *SU -620-260
Fruit and vegetables grading appts. - 45482B/24
CIBA 04.08.72 CIBA GEIGY AG A60 C01 D22 E12 =SU -619-084
Triorgano-lead or tin sulphide biocides - 14876V/08
COAF 07.09.77 CREUSOT-LOIRE D15 H03 J01 =FR 2402-463
Treatment for effluent with emulsified hydrocarbon(s) - 20287B/11
COLG 08.08.75 COLGATE PALMOLIVE CO D22 F04 =CA 1055-237
Disposable absorbent pad - 68442X/36
*COLG 06.10.75 COLGATE PALMOLIVE CO D21 *US 4156-707
Multicoloured variegated soap mfr. - 45636B/24
COLG 12.09.77 COLGATE PALMOLIVE CO A97 D25 =FR 2402-703
Particulate phosphate free washing product - 06094B/04
COLG 12.09.77 COLGATE PALMOLIVE CO A97 D25 =PT --68-507
Particulate phosphate free washing product - 06094B/04
COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =DK 7804-741
Deodorant stick based on alkali metal bi:carbonate - 18051B/10
COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =NO 7803-594
Deodorant stick based on alkali metal bi:carbonate - 18051B/10
*CONS= 18.02.77 CONSERVE FRUIT DRY D13 *SU -619-167
Oatmeal prodn. from oat flour - 45221B/24
CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =DK 7801-632
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19
*CRIN- 13.09.77 CRINA CENT RECH INT C03 D13 *FR 2402-418
Ruminant feed prodn. from straw - 44435B/24
CSIR 22.09.77 COMMONWEALTH SCIENT ORG A97 D15 (A14) =J5 4056-244
Clarifying water by contacting with mineral or clay coagulant - 26565B/14

DAIA- 24.09.76 DAIA TOKKYO PROJECT D13 E14 G04 =J7 9012-279
Deoxygenation of food, fur, clothes etc. - 37317A/21
DAII- 11.10.77 DAI-ICHI TOGYO KK D16 (D15) =J5 4055-793
Agglutinant prepd. by Dematium fungus cultivation - 30061B/16
DAII- 17.08.78 DAI-ICHI TOGYO KK D16 (D15) =J5 4056-241
Agglutinant prepd. by Dematium fungus cultivation - 30061B/16
DANA 27.10.77 DANFOSS A/S D15 E36 J04 =DK 7804-475
Polarographic measurement of oxygen in liquids - 35501B/19
*DBID- 06.12.77 DE BIDERIVATI BIOLOGICI B04 D21 *DT 2852-792
Anticariogenic dentifrice compsns. - 44323B/24
DBID- 06.12.77 DE BIDERIVATI BIOLOGICI B04 D21 =GB 2008-948
Anticariogenic dentifrice compsns. - 44323B/24
*DEBI- 06.12.77 DE BI DERIVAT BIOLOGICI B04 D21 *DT 2852-792
Anticariogenic dentifrice compsns - 44323B/24
DEGM 19.07.73 DEGREMONT SA D15 #US 4156 644
Pulsed sedimentation separator - 05656V/04
DEJI- 14.11.77 DEJ INT RES CO A97 D13 =GB 2008 921
Caffeine removal from carbon di:oxide extracts - 37[illegible]62B/20
*DESA- 26.07.73 DESALINATION SYSTE D15 *US 4156 645
Potable water prodn. from sea water - 45606B/24
*DFAN/ 09.09.77 DE FANTI A D18 *FR 2402 829
Electromechanical safety system for hide fleshing machine etc. - 44467B/24
DIDI 09.12.69 DIDIER-WERKE AG D15 M12 =DS 1961-562
Recycling and recovering rinsing water - [illegible]1910S/06
*DNII 06.10.77 DAINIPPON INK INST CHEM B04 D16 *J5 4055 791
RNA prodn. by cultivation of Candida tropicalis - 44950B/24
*DNIN 06.10.77 DA NIPPON INK CHEM KK B04 D16 *J5 4055-791
RNA prodn. by cultivation of Candida tropicalis - 44950B/24
*DORI 08.10.77 DORIKO KK D15 *J5 4054 446
Effluent treating process - 44659B/24
*DORI- 08.10.77 DORIKO KK D15 *J5 4054 450
Agent for adjusting conditions in microbiological effluent treatment 44662B/24
*DORI- 08.10.77 DORIKO KK D15 *J5 4054-451
Effluent, e.g. sewage, treatment in aeration vessel - 44663B/24
DORO 08.12.69 DORR OLIVER INC D15 J01 =DS 2060-046
Sedimentation tank with pier supported - 82245R/44
*DOWC 02.12.77 DOW CHEMICAL CO A41 D15 E16 *EP ---2-254
N-Amino-methyl unsatd. carboxamide prodn. - 44350B/24
DSOP 11.10.73 DSO PHARMACHIM B04 D16 =SU -619-187
Lactobacillus bulgaricus compsns. 29956W/18
DYNN 08.09.77 DYNAMIT NOBEL AG B04 D16 =FR 2402-635
Racemisation of optically active N-acyl-aminoacid(s) - 04131B/03
DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =GB 2009 121
Immobilising enzymes on amorphous silica carrier - 35242B/19

*EBAI 08.10.77 EBARA INFILCO KK D15 *J5 4054-449
BOD removal, nitrification and denitrification of water - 4466[illegible]B/24
*ELEC 28.09.77 ELECTRICITE DE FRANCE D15 *PT --68-548
Water purification system - B/24
ELIL 02.10.75 ELI LILLY & CO B04 C03 D16 =SU -620-215
Antifungal antibiotic mixt. A-30912 - 25225Y/15
ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 =BE -872-488
Antibiotic A-40104 fraction A - 93172A/51
*ENGE/ 08.09.77 ENGELS J A B04 D16 J04 *FR 2402-873
Reagent for early detection of cancer - 44468B/24
*EPST/ 02.07.70 EPSTEIN S S A97 D18 *US 4156-431
Tobacco smoke filter - 45551B/24
ESMI- 13.09.77 ESMIL BV D15 =FR 2402-625
Appts. for distilling water esp. sea water - 24314B/13
*ESMI- 29.11.77 ESMIL BV D15 *NL 7713 116
Ultra- or hyperfiltration unit - 45196B/24
ESPE 15.01.71 ESPE FAB PHARM PRAPARATE A96 D22 E32 =DS 2
939
Self-curing compsn - 49201T/31
ETHI 10.03.76 ETHICON INC A96 D22 =CA 1055-440
Package for sutures with self-centring pledgets - 51877Y/29
ETHI 08.11.77 ETHICON INC D22 =BR 7804-579
Surgical thread package - 76813A/43
ETHI 05.12.77 ETHICON INC A96 D22 =DT 2824-786
Surgical suture needle with thread detachable by pulling - 87831A/
ETHY 29.06.70 ETHYL CORP D25 E17 =DS 2132-300
Detergent components and compounds - 03643T/03
*EURO- 07.09.77 EURO MACHINES D14 J02 *FR 2402-471
Mixer for creams etc. having conventional mixing element - 44439B
EXTE- 27.09.77 EXTERMA JARM PRODUC A94 D22 E14 F06 (D25)
4055-677
Impregnated material esp. with antimicrobial compsn. - 10007B/06

FAIQ 16.05.77 FAIRFIELD ENG CO D15 (D16) =BR 7803-036
Digester to dispose of organic rubbish, sewage sludge etc. - 68944A
FARB 13.09.77 BAYER AG A14 D21 (A25 A96) =FR 2402-672
Two/phase pearl polymers - 22260B/12
FARB 21.10.77 BAYER AG C01 D22 =DK 7804-693
O-pyrimidinyl-phosphorus acid ester and amide derivs. - 33536B/18
*FARB 25.11.77 BAYER AG A96 D21 (A14 A25) *DT 2752-611
Dental prostheses, etc. having increased impact strength - 44142B/
FARB 25.11.77 BAYER AG A96 D21 (A14 A25) =EP ---2-201
Dental prostheses, etc. having increased impact strength - 44142B/
*FARB 01.12.77 BAYER AG B02 C02 D13 *DT 2753-513
Antibacterial agents and animal feed additives - 44172B/24
*FARB 10.01.78 BAYER AG A60 D22 E13 C02 (G03 G04) *DS 2800-92
Microbicide esp. fungicide compsn. 44114B/24
FARH 29.10.77 HOECHST AG D15 =DK 7804-797
Treatment of waste water contg. toxic materials etc. - 37247B/20
*FARH 05.12.77 HOECHST AG D25 E34 *EP ---2-282
Sodium tri:poly:phosphate for detergent slurry use - 44361B/24
FARM- 09.09.77 FAR MAR-CO INC D13 (D11) =FR 2402-417
Whole wheat grain fractionation - 22280B/12
*FERM= 10.03.77 FERMENTATION RES D16 *SU -619-855
Colorimetric determination of fusel oil in potable spirit 45463B/24
*FERM= 16.07.77 FERMENTATION RES D16 *SU -619-856
Estimating the saccharifying capacity of amylolytic enzyme - 45464B/
FIRM 30.04.65 FIRMENICH SA D13 E13 #J7 9012 552
Synthetic flavour - 54472S/34
FIRM 15.06.67 FIRMENICH SA D23 =DS 1793-711
Unsat aldehydes with four double bonds - 68033R/38
FIRM 07.09.77 FIRMENICH SA B07 D23 E13 (B03 D13) =FR 2402-420
Methyl-substd. 6-methylene-1-oxa-spiro-decene or deca-di:en
22319B/12
*FIRM 06.12.77 FIRMENICH SA B07 C03 D13 E13 (B03) *DT 2852-783
3-Methyl-1,2,4-trithiane used in aromatising compsns. - 44320B/24
FISO 31.10.77 FISONS CORP D22 =DK 7804-729
Sterilising soln. contg. physiologically acceptable salt and alcoh
37529B/20
FLOW 02.06.75 FLOW PHARMACEUTICAL D22 =CA 1055-398
Distributing iodine in iodophor pref. for sterilising lenses - 00230Y/01
FUJI 09.09.74 FUJISAWA PHARM IND KK B02 D16 =CA 1055-415
Antimicrobial substd.-3-cephem-4-carboxylic acid - 23819X/13
*FUJI/ 07.10.77 FUJIMOTO S D15 J03 *J5 4054-971
Alkaline calcium ion contg. water prodn. - 44726B/24
FUKO 08.09.77 FUJI OIL KK D13 =FR 2402 416
Hard vegetable butter compsn. for chocolate - 22530B/12
*FUKO 11.10.77 FUJI OIL KK A92 D13 (A 1) *J5 4055-752
Packaging or casing material for fish paste, etc. 44935B/24

GARD- 11.09.78 GARDNER J W ENTREP D13 #PT --68-538
Products based on hydrated peanuts - 06096B/04
*GARH- 05.12.77 GARHIN SA A88 D15 J04 *DT 2852-372
Fluid additive metering system - 44303B/24
*GEFO- 01.12.77 GEN FOODS CORP D12 (D23) *DT 2849-129
Texturised oil seed protein meat substitute - 44244B/24
GENE 29.03.77 GENERAL ELECTRIC CO A91 D15 J01 =J5 4056-078
Sepg. mixed ion exchange resins - 78168A/43

M 06.04.77 GENERAL MILLS INC D14 *US 4156-486
tary valve feeding food treatment chamber - 45566B/24
M 23.11.77 GENERAL MILLS CHEM A11 D22 E16 (A14 A96) =GB
-201
ydrolysed grafted starch-polyacrylonitrile copolymer mixture -
981B/02
M 23.11.77 GEN MILLS CHEM A11 D22 E16 (A14 A96) =NL 7810-593
ydrolysed grafted starch-polyacrylonitrile copolymer mixture -
1981B/02
M 28.11.77 GENERAL MILLS INC B05 D21 E19 *US 4156-715
hewing gum for reducing or inhibiting plaque - 45639B/24
IM 28.11.77 GENERAL MILLS INC B05 D21 E19 *US 4156-716
hewing gum for reducing or inhibiting plaque - 45640B/24
IO 01.11.77 GENERAL FOODS CORP D13 =DK 7804-839
ree-flowing coffee agglomerate leaving no sediment - 35665B/19
IO 30.11.77 GEN FOODS FRANCE SA D13 =DT 2848-686
hewing gum prepn. - 25987B/14
IO 30.11.77 GEN FOODS FRANCE D13 =NL 7811-408
hewing gum prepn. - 25987B/14
IO 01.12.77 GENERAL FOODS CORP D12 (D23) *DT 2849-129
exturised oil seed protein meat substitute - 44244B/24
IO 01.12.77 GENERAL FOODS CORP D12 (D23) =GB 2008-922
exturised oil seed protein meat substitute - 44244B/24
IO 08.02.79 GENERAL FOODS CORP A97 D13 E23 *BE -874-045
Stabilising erythrosine in aq. food substances below pH 4.5 - 44062B/24
JL- 26.11.77 GIULINI CHEMIE GMBH D21 =EP ---2-184
Dentifrice contg. fine poly:phosphate granulate - 42569B/23
/A 25.11.77 GIVAUDAN L & CIE SA A60 C02 D22 E13 *DT 2851-023
Antibacterial, fungicidal isothiazole derivs. - 44253B/24
/A 25.11.77 GIVAUDAN L & CIE SA D23 E14 =GB 2009-151
Substd. di:hydro-cinnamaldehyde perfume prepn. - 42697B/23
/A 25.11.77 GIVAUDAN L & CIE SA A60 C02 D22 E13 =GB 2009-165
Antibacterial, fungicidal isothiazole derivs. - 44253B/24
/A 25.11.77 GIVAUDAN L & CIE SA D23 E14 =NL 7811-595
Substd. di:hydro-cinnamaldehyde perfume prepn. - 42697B/23
/A 25.11.77 GIVAUDAN L & CIE SA A60 C02 D22 E13 =NL 7811-596
Antibacterial, fungicidal isothiazole derivs. - 44253B/24
AC- 21.11.77 GLACE BOLAGET AB D13 =GB 2009-086
Ice cream cone closure appliance - 40870B/22
AS/ 24.11.77 GLASBY A G S A97 D21 *EP ---2-334
Hand cleaning compsn. contg. nonionic surfactant - 44390B/24
AX 06.12.77 GLAXO GRP LTD A91 B02 D16 =BE -872-535
Cephalosporin C isolation from fermentation broth - 44315B/24
AX 06.12.77 GLAXO GROUP LTD A91 B02 D16 *DT 2852-596
Cephalosporin C isolation from fermentation broth - 44315B/24
OMI= 28.03.77 GORK MICROBIOL EPID B04 D16 *SU -619-509
Deoxyribonucleic acid prodn. from diphtheric Corynebacteria -
45382B/24
OOR 22.09.77 GOODRICH B F CO A14 C03 D25 (A26 A97 D15) =J5
)56-688
Water-soluble carboxylic polymer-phosphorous acid reaction prods. -
33695B/18
RAC 15.04.77 GRACE W R CO A97 D25 E19 F06 *US 4156-592
Expandable compressed reticulated polyurethane foam article -
45581B/24
RAI= 21.03.77 GRAIN PRODUCT PROCE D11 *SU -619-203
Macaroni flour prodn. from wheat - 45233B/24

AAR 07.12.73 HAARMANN & REIMER GMBH D13 E14 J01 =SU -620-202
Purificn. of thermolabile cpds. like vanillin by distn. - 42650W/26
IASE 07.10.77 HASEGAWA KK B07 D23 E17 (B05 D13 D21) *J5 4055-512
Mono:terpene-beta-ketol cpds. - 44835B/24
IASE 07.10.77 HASEGAWA KK B07 D23 E17 (B05 D13 D21) *J5 4055-513
Mono:terpene alpha ketol cpds. - 44836B/24
IASE 11.10.77 HASEGAWA KK D23 E15 *J5 4055-552
Prepn. of 2-alkyl-3-methyl-2-cyclopentene-1-one - 44863B/24
IASE 11.10.77 HASEGAWA KK D23 E15 *J5 4055-553
Cis-Jasmone prepn. - 44864B/24
IATS 25.02.77 NHK SPRING KK A26 C03 D21 G02 (G03) =US 4156-675
Sulphonate-contg. polyurea - 63804A/36
IENK 19.04.71 HENKEL KG AUF AKTIEN A97 D25 =DS 2118-820
Carpet/upholstery cleaning agent - 74301T/47
IENK 01.12.77 HENKEL KG AUF AKTIEN D25 E33 *DT 2753-477
Textile and esp. dish-washing cleansing compsns, - 44164B/24
IENK 02.12.77 HENKEL KG AUF AKTIEN A60 D25 E19 G04 (D16) *DT 2753-
579
Stable aq. washing and cleaning compsn. - 44187B/24
IENK 02.12.77 HENKEL KG AUF AKTIEN A97 D25 (A26) =DT 2753-680
Powdered detergent contg. silicone antifoam - 42420B/23
IENK 02.12.77 HENKEL KG AUF AKTIEN A97 D25 (A26) =GB 2009-223
Powdered detergent contg. silicone antifoam - 42420B/23
IENK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 *BE -872-624
Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
HITA 12.10.77 HITACHI KK D15 J03 *J5 4056-248
Carbon electrode for water purificn. - 45020B/24
HITB 12.10.77 HITACHI CHEMICAL KK D15 J01 *J5 4056-081
Osmotic membrane tube e.g. for prodn. of fresh water from sea water -
44985B/24

*HITB 12.10.77 HITACHI CHEMICAL KK A85 D17 E13 (A14 A60) *J5
4056-646
Electrically insulating vinyl chloride resin compsn. - 45064B/24
HOFF 12.09.77 HOFFMANN-LA ROCHE S B05 D13 E17 (D16) =FR 2402-
705
D-Arabitol prepn. by Pichia haplophila microorganism fermentation
22403B/12
*HOFF 09.12.77 HOFFMANN-LA ROCHE SA D21 E13 *BE -872-619
Cosmetic prods. contg. pyridine thiol cpds. and acetyl cysteine
44049B/24
HOUD 10.10.74 HOUDAILLE INDS INC D15 =CA 1055-623
Waste water disinfected by injecting chlorine - 24462X/14
HOUT/ 28.11.77 HOUT C D14 =GB 2008-933
Cheese rind planing machine - 42631B/23
HOUT/ 28.11.77 HOUT C W D14 =NL 7713-110
Cheese rind planing machine - 42631B/23
*HUBE 03.10.73 HUBER J M CORP D21 E36 (E17) *US 4156-717
Tooth paste contg. silica thickener - 45641B/24
HULE- 12.09.77 HULETTS SUGAR LTD D17 =FR 2402-460
Vertical cylindrical continuous vacuum crystalliser esp. for sugar pro
06105B/04
*HYDR- 16.06.77 HYDRO PLAN ENG LTD D15 J01 *US 4156-651
Self-cleaning filtration device - 45610B/24

ICIL 08.09.77 IMPERIAL CHEM INDS LTD D16 (D13) =FR 2402-704
Microbiological prodn. of single cell protein - 18028B/10
INFL 22.12.76 INT FLAVORS & FRAGR INC D13 E13 =DT 2759-597
Augmenting or enhancing aroma or taste of foodstuff - 01929A/01
INFL 28.07.77 INT FLAVORS & FRAGR INC D23 E15 #US 4156-695
Unsaturated-acetyl-di:methyl-cyclohexane cpds. - 21425A/11
INFL 21.06.78 INT FLAVORS & FRAGR INC D23 E15 (D13) =US 4156-
662
Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo hexadiene
67315A/38
INGR- 29.11.77 INGREDIENT TECH COR D17 (D13) =GB 2008-920
Agglomeration of powdered solids, e.g. carbohydrate(s) - 42722B/23
INGR- 29.11.77 INGREDIENT TECHNOL D17 (D13) =NL 7811-714
Agglomeration of powdered solids, e.g. carbohydrate(s) - 42722B/23
*INQU- 01.09.78 IND QUIMICAS OERLIK D18 G02 *PT --68-496
Preservative and cleaner for leather - B/24
*INRG 09.09.77 INST NAT RECH AGRON C03 D16 *FR 2402-412
Arthrobotrys robusta 'antipolis' strain - 44434B/24
*INTE- 06.12.77 INTERMEDICAT GMBH A96 D22 (A17 A26) *DT 2852-289
Heart surgery prostheses mfr. - 44295B/24
*INTT 05.12.77 ITT INDUSTRIES INC D12 *GB 2009-471
Optimising value of meat cuts produced from animal carcass - 44536B/24
*IRVI/ 02.12.77 IRVING S J D15 *EP ---2-369
Liquid aerating device esp. for waste water - 44408B/24
IRVI/ 01.12.78 IRVING S J D15 =GB 2008-961
Liquid aerating device esp. for waste water - 44408B/24
ISTS 30.09.77 IST SIEROTER VACC SCLAVO B04 D16 =J5 4054-697
Adenylate kinase inhibitor, esp. for creatine kinase determn.
28081B/15
ITDI- 25.11.77 INT DIAGNOSTIC TECH A96 B04 D16 J04 =DT 2851-150
Surface immunoassay with two different test surfaces - 42821B/23

*JAOR 04.04.77 JAPAN ORGANO KK D15 J01 *J5 3123-382
Reclaiming ion exchange material - 44542B/24
*JAOR 12.10.77 JAPAN ORGANO KK D15 K06 *J5 4054-970
Preventing leakage of undesirable ions into an ion exchanger -
44725B/24
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =PT --
68-581
Cigarette filter contg. cellulose di:acetate and cellulose fibres -
04098B/03
*JOHJ 10.01.77 JOHNSON & JOHNSON A14 D21 (A96) *US 4156-766
Thermally stable dental restorative material - 45661B/24
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =DK 7804-587
Low temp. maturing dental glaze - 78140A/43
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =NO 7803-495
Low temp. maturing dental glaze - 78140A/43

*KAJI/ 26.04.69 KAJITANI H D13 E34 *J7 9012-543
Fine table salt particles prepn. - 45185B/24
KAKE 12.04.72 KAKENKAGAKU B04 D16 =J7 9012-555
Novel K-5610 antibiotic - 31499V/17
KANE 18.05.73 KANEBO KK D23 E17 =J7 9011-804
Purifying wool fatty acids obtd. by wool grease saponificn - 26614W/16
*KANF 05.10.77 KANEGAFUCHI CHEM KK B05 D16 E16 *J5 4055-786
L-Glutamic acid fermentative prodn. - 44947B/24
*KANF 05.10.77 KANEGAFUCHI CHEM KK B05 D16 E14 *J5 4055-788
Enzymatic prodn. of D-N-carbamoyl:phenyl:glycine - 44948B/24
KAOS 27.00.74 KAO SOAP KK D25 E14 (E15) =J7 9011-806
Preventing yellowing of washed clothing - 47975W/29
KAOS 03.07.74 KAO SOAP KK D25 E24 (E23) =J7 9011-807
White synth detergent compsn - 15867X/09

KAOS 30.09.75 KAO SOAP KK A97 D25 E19 =J7 9012-485
Granulated detergent mixt. - 23921Y/14

KAOS 13.09.77 KAO SOAP KK D25 E34 =FR 2402-624
Sodium percarbonate readily dissolving in tap water with foaming - 24205B/13

KAOS 28.11.77 KAO SOAP KK A97 D25 E17 (A14 A25 E14) =GB 2009-221
Low viscosity aq. stable liq. cleansing compsn. - 42661B/23

*KATA- 07.10.77 KATAYAMA KAGAKU KOG C02 D22 F09 (D15) *J5 4055-724
Slime control agent - 44918B/24

*KATA- 11.10.77 KATAYAMA KAGAKU KOG D15 *J5 4056-245
Treating waste water of high COD content esp. sulphur components - 45017B/24

KATO/ 16.01.73 KATO T D15 E36 J01 =J7 9012-431
Catalyst for waste gas waste water purifn - 36550W/22

*KDFO= 07.02.77 KRASND FOOD IND RES D13 *SU -620-259
Tomato treatment for preservation - 45481B/24

KEIL/ 25.11.77 KEIL W A91 D15 J01 =EP ---2-203
Water softening appliance - 33443B/18

KEND 03.07.75 KENDALL CO D22 F07 =CA 1055-349
Surgical stocking with thigh portion of low longitudinal stretch - 86965X/47

KETT- 21.02.75 KETTERING C F FOUND A97 D15 E24 =CA 1055-420
Dye-sensitised photo-oxidation of organic pollutants - 33786X/18

*KFRU= 07.06.76 KAZA FRUIT WINE D13 *SU -619-145
Gas compsn. for storing fruit - 45214B/24

*KHPO 22.10.76 KHARKOV POLY D23 *SU -619-503
Oil extraction from seeds - 45376B/24

*KIBU- 07.10.77 KIBUN KK D12 *J5 4055-753
Preventing enzymic decomposition of minced fish and crustacea meat - 44936B/24

*KIBU- 13.10.77 KIBUN KK C03 D16 (D13) *J5 4055-779
Sepn. of effective components in dried distillers solubles - 44943B/24

*KICO= 14.03.77 KIEV CONFECT FACTOR D17 *SU -619-512
Sugar prod. prepn. from cane sugar - 45385B/24

*KIFO= 03.12.76 KIEV FOOD IND INST D11 *SU -619-162
Mesh hearth-conveyor for baking oven - 45216B/24

KIKK 08.10.77 KIKKOMAN SHOYU KK D16 =J5 4055-784
Pectin esterase having methyl ester hydrolysing activity - 30037B/16

KIKK 12.10.77 KIKKOMAN SHOYU KK D16 =J5 4055-792
Pectin esterase having methyl ester hydrolysing activity - 30037B/16

*KILC- 01.12.77 KILCHER-CHEMIE AG D15 J01 *EP ---2-422
Cross-flow filtering appts. - 44431B/24

*KIRS/ 18.11.74 KIRSANOV G P B04 C03 D12 F01 *SU -619-157
Nutrient medium for fattening spiders - 45215B/24

KITA 13.03.75 KITASATO INS B04 D16 #DS 2510-990
Antibiotic Os-3966-B prepn - 66306W/40

*KIYO/ 08.10.77 KIYOSUE I D15 *J5 4054-961
Recycling waste material in form of liq., slurry or sludge - 44716B/24

*KNAP 05.12.77 KNAPSACK AG D25 E34 *EP ---2-282
Sodium tri:poly:phosphate for detergent slurry use - 44361B/24

*KOBA- 07.10.77 KOBAYASHI KOSEI KK A96 D21 (A14 A25) *J5 4055-738
PVA-contg. pack cosmetic prepn. - 44929B/24

*KOBM 07.10.77 KOBE STEEL KK D15 J01 *J5 4054-975
Operating tubular membrane separator - 44728B/24

*KOBM 07.10.77 KOBE STEEL KK D15 J01 *J5 4054-976
Washing a tubular membrane separator - 44729B/24

*KOBM 12.10.77 KOBE STEEL KK D15 E36 *J5 4056-246
Decomposition of thiosulphate in liquor using sulphuric acid - 45018B/24

*KOBM 12.10.77 KOBE STEEL KK D15 E36 *J5 4056-247
Removing sodium thiosulphate from liquors - 45019B/24

*KOEI 07.10.77 KOEI CHEM IND KK D25 E34 *J5 4054-111
Cleaning compsn. for domestic bath - 44592B/24

*KOWA 06.10.77 KOWA KK B04 D16 *J5 4055-782
Stable urokinase soln. - 44944B/24

*KOYO- 05.10.77 KOYO SANGYO KK A97 D22 *J5 4055-740
Indoor aromatiser with extended service life - 44931B/24

*KOYO- 05.10.77 KOYO SANGYO KK A97 D22 *J5 4055-741
Indoor aromatiser - 44932B/24

KRFT 30.11.77 KRAFT INC D13 =GB 2008-923
Cheese-making process using concentrate of protein fat and salts - 25998B/14

KRFT 30.11.77 KRAFT INC D13 =NL 7811-756
Cheese-making process using concentrate of protein fat and salts - 25998B/14

KRPP 19.11.75 KRUPP F GMBH D15 =DS 2551-907
Flocculation reactor with fixed bridge - 65075X/35

KRPP 19.11.77 KRUPP F GMBH D14 (D23) =GB 2008-931
Multistage screw press to expel liq. from oil seed etc. - 22106B/12

KURE 18.12.75 KUREHA CHEM IND KK B04 D16 =CA 1055-487
Antioncogenic nitrogen-contg. polysaccharides - 43426Y/25

KURE 18.12.75 KUREHA KAGAKU KOGYO B04 D16 =DS 2655-844
Antioncogenic nitrogen-contg. polysaccharides - 43426Y/25

*KURS 19.07.77 KURARAY KK A96 D21 E11 G03 (A81) *J5 4021-438
Adhesives for the hard tissue of animals - 44558B/24

KYOW 04.08.69 KYOWA HAKKO KOGYO B03 D16 =DS 2037-9
Cytidine-5'-diphosphocholin (salts) - 14392S/08

*KYOW 09.09.70 KYOWA FERMENTATION KK D17 (D16) *J7 901
Invert sugar soln. prepn. - 45184B/24

*KYOW 13.10.77 KYOWA FERMENTATION KK B04 D16 *J5 4055-
Fermentative prodn. of malic dehydrogenase - 44946B/24

*KYUS- 04.10.77 KYUSHU BISEIBUTSU R C03 D13 (D16) *J5 4054-
Fermented animal feed mfr. from vegetable fibre - 44693B/24

LABO 02.12.77 LABOFINA SA D23 (D13) =DT 2838-488
Hydrogenation catalyst for oils, esp. cooking oils - 27888B/15

LABO 02.12.77 LABOFINA SA D23 (D13) =DT 2838-529
Hydrogenating oils, esp. cooking oils, using nickel catalyst - 278

LACM- 24.03.75 LAC-MAC LTD D22 F07 =CA 1055-201
Reversible surgical gown - 15427B/08

*LEBR/ 05.12.77 LEBRUN C D11 *DT 2852-525
Loading carriage and shelf rack for baking oven - 44310B/24

*LEFO= 21.02.77 LENGD FOOD IND RES D16 E17 *SU -619-511
Citric acid biosynthesis automatic control - 45384B/24

*LENL 16.03.77 LENINGRAD FORESTRY ACAD D12 *SU -619-164
Colouring compsn. for white sausage skin - 45218B/24

*LEON/ 27.10.77 LEONARDI A R D18 *BR 7707-222
Animal skin transport system - B/24

*LERE= 21.02.77 LENGD REFRIG IND D16 E17 *SU -619-511
Citric acid biosynthesis automatic control - 45384B/24

LIND/ 14.06.74 LINDROOS P G S C03 D13 =CA 1055-489
Iron protoporphyrin derivs. separation from globin - 00513X/01

LINK- 10.12.76 LINKER MACH INC D12 =GB 1547-339
Sausage casings peeling apparatus - 30193A/16

*LINM 01.12.77 LINDE AG D15 *DT 2753-482
Oxygenation of stretches of water at predetermined depths - 441

*LIOC 13.10.77 LION DENTIFRICE KK D21 E12 (E17) *J5 4056-629
Dental calculus staining agent - 45052B/24

*LIOY 12.10.77 LION FAT & OIL KK A96 D21 (A25) *J5 4056-614
Shampoo compsn. only slightly irritative to the eye - 45047B/24

*LIOY 13.10.77 LION FAT & OIL KK D25 E13 (E16) *J5 4056-612
Detergent compsn. for use on synthetic and natural fibres - 45046

LNDH 17.03.75 LONDON HOSPITAL A26 D21 E33 (A60 E19) =GB
372
Catalyst for curing polysulphide rubbers - 61588X/33

LOHM- 15.09.78 LOHMANN & CO GMBH D22 F07 #PT --68-563
Elastic net bandage - 26246B/14

*LOTT 07.10.77 LOTTE KK A97 D13 (A14 A17) *J5 4055-760
Chewing gum base with improved film forming property etc. - 449

*LOTT 12.10.77 LOTTE KK A97 D13 (A11) *J5 4055-761
Complex chewing gum base - 44938B/24

*LUGA= 16.03.77 LUGANSK SAUSAGE SKIN D12 *SU -619-164
Colouring compsn. for white sausage skin - 45218B/24

*LUPO- 06.12.77 LUPOFRESH ALLFELD & D16 *DT 2754-187
Hop powder or pellets package resistant to damage - 44222B/24

LUTH/ 11.06.75 LUTHY E D18 =US 4156-750
Twice tanned leather for upholstering furniture and cushions - 812

MAGN- 05.12.77 MAGNUSON ENG INC D14 =DT 2851-684
Peeling cherries or tomatoes by beds of contra rotating rolls - 4037

MAGN- 05.12.77 MAGNUSON ENGS INC D14 =GB 2008-932
Peeling cherries or tomatoes by beds of contra rotating rolls - 4037

*MAKH/ 18.11.76 MAKHLITS G L D14 *SU -619-365
Conical casings for arrow-shaped confectionery - 45319B/24

MASI 11.11.76 MASSACHUSETTS INST TECH A96 B04 D16 =DT 2
579
Growing anchor dependent cells in a medium contg. a micro-c
- 21567A/12

MATC- 19.10.77 MATCON RADGIVENDE I D12 =DK 7704-651
Small fish processing method - 33640B/18

MATS- 09.12.72 MATSUYA KAGAKU KOGYO KK D13 (D16) =J4 9
555
Liq. foodstuff contg. thickener - 45186B/24

*MATS- 09.12.72 MATSUYA KAGAKU KOGY D13 (D16) *J7 9012-544
Liq. foodstuff contg. thickener - 45186B/24

MEDK 27.02.76 MEDICOR MUVEK D22 #SU -620-194
Steriliser for use with a bacteriocidal gas - 67107X/36

MEGG 19.09.77 MEGGLE MILCHIND MOLDEREI D13 =J5 4055-756
Protein-rich snack-like foamed food prepn. - 24140B/13

MEIJ 31.01.72 MEIJI CONFECTIONERY B04 C03 D16 =J7 9012-557
Antibioc SF-1306B - 08179V/05

MEIJ 10.02.72 MEIJI CONFECTIONARY B04 C03 D16 =J7 9012-532
SF 1293 antibiotic - 44187V/24

MERI 01.03.77 MERCK & CO INC B02 D16 =PT --67-721
Recovering the antibiotic thienamycin from liquids - 65632A/37

MERI 01.04.77 MERCK & CO INC A96 B04 D15 F09 (A97) =US 4156-
Poly methyl 3-trimethyl ammonio propyl imino trimethyle
83010X/45

9.08.77 MERCK & CO INC B02 D16 =J5 4055-789
Acyl-thienamycin cpds. prepn. - 09813B/05
9.10.77 MERCK & CO INC B02 C02 D22 E13 =DK 7804-644
bstd.-6-hydroxy:ethyl-7-oxo-1 aza:bi:cycloheptene carboxylic acids -
18B/18
7.11.77 MERCK & CO INC B02 C02 D13 E13 (D22) *EP ---2-210
-2-em-3-carboxylic acid and derivs. and 1 sulphoxide(s) - 44337B/24
28.11.77 MERCK & CO INC B04 D16 *EP ---2-404
umococcal vaccine contg. capsular polysaccharide - 44422B/24
24.10.77 METZELER AB A88 D15 J01 #NO 7703-631
ration plant for sepg. oil particles from effluents - 35465B/19
07.04.76 MINEGISHI T D15 =J7 9012-263
salination appts. for sea water - 83826Y/47
14.11.77 MINNESOTA MINING CO A96 B04 D16 =GB 2009-184
bstrates for immobilising biologically active proteins - 39382B/21
12.10.77 MITSUI PETROCHEM IND KK A60 D23 E13 H07 *J5 4054-

roman derivs.-contg. antioxidant - 44730B/24
29.12.75 MITSUBISHI GAS CHEM IND D13 E33 =J7 9012-275
ygen absorbant for preservation of e.g. vegetables - 59897Y/34
22.01.76 MITSUBISHI GAS CHEM IND D13 E37 =J7 9012-277
xygen absorbent stable in oxygen-free atmosphere - 63919Y/36
07.10.77 MITSUBISHI HEAVY IND KK D15 E36 J01 *J5 4054-969
moving sulphide(s) in active carbon bath - 44724B/24
04.10.77 MITSUBISHI RAYON KK A88 D15 F01 J01 (A14 A96) *J5
-623
ollow fibre shaped membrane prodn. - 44896B/24
05.10.77 MITSUBISHI RAYON KK A97 D15 *J5 4054-447
eating oil-contg. waste water - 44660B/24
J 02.10.73 MITSUBISHI CHEM IND KK B05 D16 E14 =J7 9012-554
Substd. phenylserine prodn - 73218W/44
L- 23.11.77 MJOLKCENTRALEN ARLA D13 =DT 2850-494
ow calorie margarine mfr. - 24016B/13
L- 23.11.77 MJOLKCENTRAL ARLA E D13 =NL 7811-447
rotein concentrate prodn. from skimmed milk - 24015B/13
L- 23.11.77 MJOLKCENTRA ARLA EK D13 =NL 7811-450
ow calorie margarine mfr. - 24016B/13
FO= 03.01.77 MOSC FOOD IND TECH D16 *SU -619-510
ndomycopsis bacterial strain - 45383B/24
GI= 15.11.76 MOGILEV KHIMVOLOKNO A97 D12 (A32) *SU -619-163
ubular sausage casing mfg. die - 45217B/24
GI= 29.11.77 MOGILEV MYASOKOMB D18 *NL 7713-115
Continuous automatic cleaning of animal hides - 45195B/24
GI= 01.12.77 MOGILE MEAT COMPLEX D18 #DT 2753-614
Continuous automatic cleaning of animal hides - 45195B/24
MA= 17.02.77 MOSC MAGARACH WINE D13 *SU -620-258
Non-alcoholic grape drink prepn. - 45480B/24
NS 31.10.77 MONSANTO CO A41 D22 E14 H06 (A60 H07) =US 4156-

1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - 37537B/20
NS 27.07.78 MONSANTO CO D25 E13 =US 4156-687
6-Cyano-tetra:hydro-pyran-2,2-di:carboxylate(s) - 78212A/43
NT 15.02.74 MONTEDISON SPA D23 E13 =CA 1055-510
2,5-Dimethyl-3-(2H)-furanone prepn. - 57476W/35
RG 25.05.71 MORINAGA MILK KK D11 =J4 8001-167
Foamed cookie prepn. - 45187B/24
RG 25.05.71 MORINAGA MILK KK D11 *J7 9012-548
Foamed cookie prepn. - 45187B/24
TO/ 11.10.77 MOTOZATO Y A11 B04 D16 J01 (A88 A96) *J5 4055-055
Cellulose-contg. porous hydrophilic material - 44770B/24
ULL/ 18.05.76 MULLER H D16 =US 4156-630
Microorganism concentration in production fermenter - 86879Y/49

AGA- 12.10.77 NAGASAKI KEN A81 D13 M22 *J5 4056-024
Metal casting mould prodn. - 44964B/24
AKA/ 04.10.77 NAKAJIMA M A41 B05 D16 E17 *J5 4055-514
2,4-Bis(hydroxymethyl)-1,2,3,4,5-pentane:pent:ol - 44837B/24
ATR 09.06.75 NATIONAL RES DEV CORP D16 J04 #CA 1055-273
Optical monitoring of chemical reactions - 14484A/08
ATR 01.11.77 NATIONAL RES DEV CORP B04 D16 J04 =DK 7804-842
Enzymatic analysis using nitro-styrene derivs. - 18088B/10
ATR 02.12.77 NATIONAL RES DEV CORP D15 *EP ---2-369
Liquid aerating device esp. for waste water - 44408B/24
ATY 18.10.74 NABISCO INC D13 =CA 1055-302
Textuised vegetable proteinaceous flakes - 34323X/19
EDR- 28.10.77 NEDRE NORRLANDS PRO D13 =DK 7804-617
Whey based products prepn. from milk serum from cheese or caseinate -
16020B/09
EPT- 06.08.69 NEPTUNE MICROFLOC D15 =DS 2005-052
Aeration basin for sewage treatment - 34299R/20
IDE 13.10.77 NIPPON ELECTRIC KK D15 E31 *J5 4056-100
Re-utilising ferrite obtd. from treatment of waste water - 44999B/24
IEU/ 03.05.76 NIEUWENHUIS G J D15 J01 =US 4156-647
Removing impurities from aq. or non-aq. liquids - 79337Y/45
IKN 09.12.72 NIKKEN KAGAKU KK D13 (D16) *J7 9012-544
Liq. foodstuff contg. thickener - 45186B/24

NILL- 12.10.77 NORTH ILLINOIS RES A96 D22 (A14) #J5 4055-096
Sealing plug for skin opening e.g. after colostomy - 28745A/16
*NIOF 07.10.77 NIPPON OILS & FATS KK D13 (D23) *J5 4054-109
Solid edible oil prepn. - 44590B/24
NIRA 12.09.77 UNITIKA KK A21 D15 F01 J01 (A14 A97) =FR 2402-673
Etherified and chelated phenolic resin - 06095B/04
NISH- 08.11.75 NISHIMURA-WATANABE D15 J05 =J7 9012-264
Multistage pulsation-type extraction column - 44478Y/25
*NITL 12.10.77 NITTO ELECTRIC IND KK D15 *J5 4056-082
Removing ppte. from osmotic filter system - 44986B/24
NMHB 21.10.77 NORDISCH MASCH R BAADER D12 #NO 7703-615
Fish processing machine feeder - 38621A/22
NMHB 21.10.77 NORDISCH MASCH R BAADER D12 #NO 7703-616
Fish filleting machine - 42333A/24
NMHB 21.10.77 NORDISCH MASCH R BAADER D12 #NO 7703-617
Fish fillet skinning machine - 38622A/22
NMHB 24.10.77 NORDISCH MASCH R BAADER D12 #NO 7703-630
Filleted fish skeleton processing machine - 04163B/03
*NNTR 12.10.77 NIPPAN BOEKI KK D13 *J5 4055-749
Processed food prepn. from plum kernel - 44934B/24
*NONO- 06.10.77 NONOGAWA SHOJI D21 E36 *J5 4055-739
Solid face powder contg. globular silicic anhydride - 44930B/24
NORV- 30.11.77 NORVIDAN EN APS D14 =NL 7811-574
Ring mould press for fodder pellets - 42688B/23

*OGUR/ 01.04.70 OGURA J D17 *J7 9012-541
Sweetening agent contg. invert sugar - 45183B/24
*OKUB/ 12.10.77 OKUBO T A97 D25 E19 *J5 4055-010
Purifying agent for amine(s) - 44746B/24
ORBA/ 30.07.74 ORBAN S C03 D13 =CA 1055-303
Conc. vegetable protein for young mammal feedstuffs - 81485W/50
OREA 23.02.68 L'OREAL SA B02 D21 =DS 1908-574
New anti-seborrhoeic cpds - 39730F/00
OREA 29.06.73 L'OREAL SA A96 D21 (A14) #DS 2333-305
Anti-solar polymers compsn - 05538V/04
OREA 15.03.77 L'OREAL SA D21 E14 =FR 2402-647
Substd. benzylidene camphor cpds. for cosmetic compsns. - 67033A/38
OREA 07.09.77 L'OREAL SA A96 D21 E19 =FR 2402-446
Hair dyeing compsn. contg. specified cationic polymer - 20012B/11
*OSAK- 11.10.77 OSAKA KAGAKU GOKIN A92 D13 (A11) *J5 4055-752
Packaging or casing material for fish paste, etc. - 44935B/24

PALL 31.08.73 PALL CORP A88 D16 F04 J01 (A35) =DT 2462-881
Seamless fibrous non woven cylinders esp. filters - 19601W/12
PALL 31.08.73 PALL CORP A88 D16 F04 J01 (A35) =DT 2462-882
Seamless fibrous non woven cylinders esp. filters - 19601W/12
PERM- 30.11.78 PERMUTIT-BOBY LTD D15 =GB 2008-968
Ion exchange water purifying appts. - 44394B/24
*PERU 30.11.77 PERMUTIT-BOBY LTD D15 *EP ---2-342
Ion exchange water purifying appts. - 44394B/24
*PETR 11.04.75 VEB PETROCHEM COM S A97 D16 H04 *SU -619-507
Recovery of microorganisms from hydrocarbon contg. media - 45380B/24
PFIZ 26.10.77 PFIZER INC B04 C03 D16 (D13) =DK 7804-748
Poly:cyclic ether antibiotic 47224 - 35178B/18
*PILL 15.04.76 PILLSBURY CO D13 *US 4156-744
Fabricated potato prod. mfr. - 45648B/24
PLAC 24.11.77 MAX PLANCK GES WISSENSCH B05 C01 D13 E11 (D25)
=EP ---2-202
Ammonio-alkyl phospholipid analogues - 42546B/23
POLA 11.12.75 POLAK'S FRUTAL WORKS INC D23 E16 (E15) =US 4156-
690
Dialkyl-nitriles prepn. for use as perfume components - 39860Y/23
*POUL= 16.03.77 POULTRY PROCESS IND D12 *SU -619-164
Colouring compsn. for white sausage skin - 45218B/24
*PROC 03.06.77 PROCTER & GAMBLE CO A97 D25 E17 F06 (E34) *J5
4039-390
Peroxy acid fibre bleaching compsn. - 44572B/24
*PROC 29.06.77 PROCTER & GAMBLE CO A97 D25 E19 (A25) *J5 4039-
411
Laundry detergent compsn. for removing stains - 44573B/24
*PROC 29.06.77 PROCTER & GAMBLE CO A97 D25 E19 (A25) *J5 4039-
413
Laundry deterging compsn. - 44574B/24
*PROC 29.06.77 PROCTER & GAMBLE CO A89 D25 E19 (A25) *J5 4039-
414
Detergent compsn. for cleaning textiles - 44575B/24
*PROC 29.11.77 PROCTER & GAMBLE CO A97 D25 E34 *EP ---2-293
Detergent tablet contg. core of alkaline builder - 44369B/24
*PROT= 23.02.77 PROTEIN BIOSYNTH D16 *SU -619-506
Growth stimulant for culturing microorganisms - 45379B/24

QPPP 17.01.74 Q.P. CORP D13 =J5 0101-562
Mustard paste prodn. - 45188B/24
*QPPP 17.01.74 Q.P. CORP D13 *J7 9012-551
Mustard paste prodn. - 45188B/24

RAUS- 09.09.77 RAUSCHER & CO VERBA D22 =FR 2402-449
Surgical compress mfr. - 24179B/13
*RECK- 24.09.77 RECKITT & COLMAN PR D13 *GB 2008-924
Making expanded farinaceous snack foods - 44477B/24
RETO 04.12.74 REYNOLDS TOBACCO CO D16 =CA 1055-416
Heat-stable lactase prepn. - 46441X/25
RICH 21.11.77 RICHARDSON-MERRELL INC B05 D21 E12 =GB 2008-941
Sodium ricinoleate mouth wash compsns. - 01818B/01
*RIGI/ 27.10.77 RIGITANO A D14 *BR 7707-317
Fruit peel movement devices - B/24
RORE 15.02.79 RORER W H INC A96 D21 #BE -874-196
Aq. pharmaceutical detergent compsn. - 29676B/15
ROSE/ 23.12.71 ROSENBERG A B06 D13 =DS 2262-498
Anti-smoking compsns - 34532U/24
ROTO- 31.10.77 ROTOCROP INT LTD D16 =DK 7804-836
Machine to chop vegetable waste for compost - 18082B/10
ROUS 20.05.69 ROUSSEL UCLAF B04 D16 =DS 2024-586
Alpha-and beta-glycoproteins from miciobes - 86371R/46
ROUS 27.10.77 ROUSSEL UCLAF B04 D16 =DK 7804-759
polysaccharide extracted from Haemophilus influenzae - 37557B/20
RUTH- 24.11.77 RUTHNER IND ANLAGEN D15 =DT 2850-189
Refuse and sewage slurry composter - 42805B/23

SAKB 17.07.75 OTSUKA KAGAKU YAKUHIN D23 E13 (D13) =J7 9012-465
Preparing 3-hydroxy 4-oxo 4H-pyran and its 2 alkyl derivatives - 90656X/49
*SAND- 06.12.77 W SANDERSON & SONS D14 *DT 2845-359
Press for extracting juices and volatile oils from whole fruit - 44241B/24
SANY 20.07.71 SANKYO KK B04 D16 =J7 9012-556
Methylenomycin A and B antibiotics - 76312V/44
*SANY 07.10.77 SANKYO KK C02 D22 *J5 4055-727
Preventing the propagation of fibrous bacteria, e.g. slime - 44921B/24
*SCHA/ 25.11.77 SCHAFFENRATH M D15 E36 (E17) *NL 7712-984
Treatment of effluent water contg. organic residues - 45193B/24
SCHE- 08.09.77 SCHEID L GMBH D12 =FR 2402-414
Injecting powdered salt to cure meat, fish etc. - 04097B/03
*SCHM/ 10.03.76 SCHMITT A D13 *US 4156-743
Continuous production of milk chocolate - 45647B/24
SCHO- 28.10.77 SCHOXI AG D11 =DK 7804-798
Whipped foam for cakes - 72923A/41
SCIE 30.11.77 SCIENCE UNION & CIE B04 D16 =NL 7811-765
Depsipeptide extract of Fusarium equiseti - 42405B/23
SCIE- 30.11.77 SCI UNION & CIE B04 D16 =DT 2851-629
Depsipeptide extract of Fusarium equiseti - 42405B/23
*SENN- 12.10.77 SENNO SEISAKUSHO KK D15 J01 *J5 4056-080
Automatic control system for ultrafiltration appts. - 44984B/24
*SHIE 12.09.77 SHINETSU CHEM IND KK C02 D13 E13 *FR 2402-654
Tetra:hydro-pyranone derivs. - 44451B/24
*SHIE 07.10.77 SHINETSU CHEM IND KK D13 E13 *J5 4055-570
2-(2-Methyl-1′-propenyl)-4-methyl-tetra:hydro pyran prepn. - 44868B/24
*SHIE 07.10.77 SHINETSU CHEM IND KK D13 E13 *J5 4055-571
3-Hydroxy-4-pyrone cpd. prodn. - 44869B/24
*SHIS 12.10.77 SHISEIDO KK A60 D21 G01 H07 *J5 4056-083
Hydrophobic powder prodn. for use in cosmetics, plastics etc. - 44987B/24
*SHIV 07.10.77 NEW JAPAN CHEM A97 D25 E17 (A25) *J5 4054-110
Cleaning compsn. - 44591B/24
*SHMI/ 07.12.76 SHMITE I A B04 D16 *SU -619-508
Polynucleotide(s) prodn. from ribonucleoside-5 di:phosphate - 45381B/24
*SHOW 11.10.77 SHOWA DENKO KK A91 D15 F09 G02 (A82 A97) *J5 4055-091
Cationic polymer useful as coating, flocculant and in paper processing - 44799B/24
*SICK- 29.11.77 O SICK KG D15 J01 *DT 2753-216
Washing medium purification - 44153B/24
*SKAL/ 04.10.72 SKALA S F D14 *US 4156-454
Apparatus for refrigerating and cooking food - 45556B/24
SMHL 20.10.77 SIMON HARTLEY LTD B04 D16 (D13 D15) =DK 7804-671
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08
SNAM 22.03.73 SNAMPROGETTI SPA A96 B04 D16 F01 =SU -620-218
Enzyme-contg. cellulosic fibres - 58455V/33
SNAM 14.09.77 SNAMPROGETTI SPA D15 =PT --60-191
Multistage evapn. plant to desalinate sea-water, etc. - 18035B/10
SNAM 13.10.77 SNAMPROGETTI SPA D16 J04 =GB 2008-966
Radial flow catalytic enzyme reactor for isomerisation of fructose - 29762B/16
*SODR- 30.05.78 SODRA SKOGSAGARNA D22 F09 *BE -872-554
Feed arrangement of continuous sheets of pulp to dry-laying machine - 44035B/24
SOMA- 25.10.77 SOMAT CORP D15 =NO 7803-595
Dewatering sewage sludge - 33597B/18
STAL 09.09.77 STALEY A E MFG CO C03 D13 =FR 2402-419
Animal foodstuff block of good stability - 20013B/11
*STEF- 07.09.77 SOC FR TRANSPORT EN D14 *FR 2402-421
Spray freezing powder prodn. e.g. egg, from air injected
44436B/24
STER 19.09.77 STERLING DRUG INC D15 =J5 4056-243
Treating waste water using rotating biological contactor - 22060B
STUD 26.06.72 STUDIENGES KOHLE MBH D23 =US 4156-688
Deodourisation of fats and oils - 02874V/02
SYDK- 05.12.68 SYDKEMI AB D17 F09 =J7 9012-537
D-xylose recovery from hardwood sulphite - 63642R/36

TABA- 09.02.78 FAB TABAC REUNIES S D18 (D16) =BE -874-050
Tobacco treatment for selective nitrate and nitrite decompo
82495A/46
*TAJI/ 05.10.77 TAJIMA T B04 D16 *J5 4055-790
Erythropoietin hormone prepn. - 44949B/24
*TAKA/ 30.04.70 TAKAHASHI Y G A35 D18 F08 *J7 9012-511
Dyeing leather in dappled patterns - 45173B/24
*TAKE/ 07.10.77 TAKEHARA S D13 E36 J01 *J5 4054-988
Air separator for producing nitrogen-rich gas - 44733B/24
*TAKS 12.10.77 TAKASAGO PERFUMERY KK A97 D13 (A11) *J5
761
Complex chewing gum base - 44938B/24
TANA 26.06.72 TANABE SEIYAKU A97 B05 D16 =J7 9012-553
L-aspartic acid prepn - 49289V/27
*TATL 03.04.75 TATE & LYLE LTD A60 D17 E13 G02 *US 4156-776
4,6-O-Isopropylidene sucrose - 45665B/24
*TEIN- 13.09.77 REAL TECH IND D15 F09 *FR 2402-626
Flocculant for treating used water - 44449B/24
*TERN= 10.11.76 TERNOPOL MEDICINE B04 D16 J04 *SU -619-858
Determining infection in bile duct - 45466B/24
TERP/ 09.09.77 TERPLAN G D13 =FR 2402-415
Preventing formation of harmful substances in molten che
04123B/03
TEXC 12.09.77 TEXACO DEV CORP A97 D25 E16 (A25) =FR 2402-47
Surface active agents prepd. from specified alkanol - 20043B/11
TEXC 11.10.77 TEXACO DEV CORP A25 D25 E16 (A97) =J5 4054-98
Amphoteric surfactants having good solubility at isoelectric
08033B/05
TEXC 31.10.77 TEXACO DEV CORP D15 =BR 7806-205
Treating waste water contg. cyanide and formate(s) - 33367B/18
TEXC 31.10.77 TEXACO DEV CORP D15 =DK 7804-732
Treating waste water contg. cyanide and formate(s) - 33367B/18
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =DT 2749-640
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/
TIVE- 14.09.77 TIVET DEV LTD D12 =PT --68-549
Moulding sausages etc. with coherent skin-like surfaces - 22039B/1
*TOAE 07.10.77 TOA FOOD CHEMISTRY KK B04 D16 *J5 4055-783
Purificn. of urokinase to give pyrogen free prod. - 44945B/24
*TOPP 05.10.77 TOPPAN PRINTING KK D13 *J5 4055-748
Preservative compsn. for fruit and vegetable - 44933B/24
*TORA 28.11.77 TORAY IND INC D15 J01 *EP ---2-237
Device for separating solids from liquids - 44345B/24
*TORN 18.07.77 TORAY ENG KK D15 *J5 4021-053
Waste water treatment with gas in a column - 44556B/24
TOYJ 13.02.76 TOYO SODA KK B06 C04 D13 E36 =J7 9012-280
Removing sulphates from phosphoric acid soln. - 69578Y/39
TREE- 31.01.77 TREE TOP INC D13 =CA 1055-354
Apparatus for loosening fruit peel - 85868A/47

*UAGR= 10.03.77 UKR AGRIC ELEC RES D14 *SU -620-268
Animal feed mixer - 45485B/24
UGIN 26.09.73 PROD CHIM UGINE KUH D23 E17 =DS 2445-729
Fatty acids prepn. from crude metallic soaps - 77583V/45
UGIN 04.06.76 PROD CHIM UGINE KUH D21 E11 F06 M14 (D22) =
2725-151
Tris-acetoxymethyl phosphine oxide as per cpd. activator - 86526Y/
UGIN 01.09.76 PROD CHIM UGINE KUH D25 E19 F06 =DS 2738-976
Alpha:acyloxy-(N,N′)-poly:acyl-malonamide cpds. - 15881A/09
UGIN 07.12.76 PROD CHIM UGINE KUH A60 D15 E19 (A21 A35 A4
=DS 2754-171
Hardeners for aminoplast pastes and binders - 38506A/22
*UKRV= 15.07.75 UKRVODOKANALPROEKT D15 J01 *SU -619-197
Separator for solids and liquid in suspensions - 45228B/24
*ULES= 01.06.76 UKR LESOSTEP POLESI C03 D13 *SU -619-166
Feedstuffs additive for ruminant livestock based on sunflower h
45220B/24
*ULTR- 02.12.77 ULTRAKUST-GERATEBAU D13 *DT 2753-865
Milk sampling system - 44203B/24
*UMEA= 22.03.77 UKR MEAT DAIRY RES D13 (D16) *SU -619-165
Soured milk drink prodn. - 45219B/24
*UMIK- 12.10.77 UMI KK D15 *J5 4056-075
Sea water desalination plant using solar energy to effect eva
44981B/24
UNCO- 22.10.74 UNION COOP AGRICOLE B04 D13 (D21) =CA 10
413
Glycoproteins, glycopeptides and sialic acid (N acetyl-neurami
31875X/18

O- 22.10.74 UNION COOPERATIVE A B04 D13 (D21) =CA 1055-414
lycoprotein and sialic acid (N-acetyl-neuraminic) - 31876X/18
C 31.03.77 UNION CARBIDE CORP A97 D12 =J5 4055-754
eutralised aq. liq. smoke mixt. - 73150A/41
C 02.12.77 UNION CARBIDE CORP A25 B07 D13 H07 (B04 D16) *EP ---
8
apidly dissolving water-soluble polymer compsn. - 44407B/24
L 24.02.70 UNILEVER NV D13 E17 =J7 9012-550
-cis-decanol giving chicken flavour to food - 56984S/35
L 14.12.70 UNILEVER NV A97 D25 E13 (A25 E16) =J7 9011-805
oilet washing liquid - 40635T/25
IL 24.02.71 UNILEVER NV C03 D13 =DS 2208-594
Animal foodstuffs prepn - 60017T/38
IL 15.06.72 UNILEVER NV D13 =J7 9012-547
Synthetic cream concentrate - 00637V/01
IL 22.11.72 UNILEVER NV D13 =J7 9012-545
Cheese flavour compsn - 42065V/23
IL 24.03.75 UNILEVER LTD D21 E12 (E16) =GB 1547-361
Thickener for hair shampoos - 79641X/43
IL 07.12.77 UNILEVER LTD B06 D21 E34 (E33) *EP ---2-386
Anticaries tooth-paste contg. sodium mono:fluorophosphate - 44416B/24
IS- 01.11.77 UNISCOPE INC A97 C03 D13 =DK 7804-858
Lubricating binder for animal feeds - 65374A/37
IX 21.10.78 UNISEARCH LTD A88 D15 J01 K05 =DK 7804-634
Anisotropic, synthetic, multilayer, molecular sieve membrane - 35640B/19
VO 07.10.75 UOP INC D15 J01 #CA 1055-402
Cleaning membrane exchange device - 72317W/43
AT 16.06.78 US DEPT OF ENERGY D15 K07 *US 4156-646
Plutonium and americium removal from alkaline wastes - 45607B/24
DA 23.05.78 US SEC OF AGRICULTURE D13 *US 4156-742
Corn kernel snack food prepn. - 45646B/24
GO 27.09.77 US GOVERNMENT D15 K07 =J5 4055-299
Removing plutonium from aq. soln. - 78241A/43
NA 30.05.78 US SEC OF NAVY D15 *US 4156-648
Water treatment to remove suspended and colloidal solids - 45608B/24
SI 13.06.78 US SEC OF INTERIOR D15 E34 J01 M25 *US 4156-656
Alkaline earth metal hydrosulphide soln. prepn. - 45614B/24
MA- 20.10.77 UNIV MACHESTER INS B04 D16 (D13 D15) =DK 7804-671
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08

AES 15.02.65 VAESSEN SCHOEMAKER B05 D13 E19 =DS 1692-812
Methods for improving the quality of protein contng - 35950F/00
LJ/ 06.09.77 VILJANMAA A K D18 =PT --68-514
Stretching hides in frames for drying - 04115B/03
LL- 13.09.77 SOC VILLAME-VINCENT D21 *FR 2402-445
Hair lotion which restores colour - 44438B/24

ARN 02.02.78 WARNER-LAMBERT CO A97 D13 *US 4156-740
Sugarless centre-filled chewing gum - 45645B/24
EIS- 21.12.77 GEBRUDER WEISS KG D16 *DS 2757-144
Organic garbage composting plant - 44109B/24
ELC- 13.09.77 WELCH FOODS INC B07 D13 E24 (B04 D21) =FR 2402-686
Anthocyanin pigment recovery from plant materials - 24208B/13
ELC- 13.09.77 WELCH FOODS INC B07 D13 E24 (B04 D21) =PT --68-536
Anthocyanin pigment recovery from plant materials - 24208B/13
ELL 03.11.77 WELLCOME FOUNDATION LTD B02 D16 *EP ---2-192
Prepn. of purine 9-beta-d-arabino-nucleoside(s) - 44331B/24
IES/ 28.07.77 WIEST R D22 #US 4156-652
Sterilising liquids by ultraviolet radiation with ozonised air - 40103Y/23

AMS 28.07.71 YAMASA SHOYU CO LTD D13 E11 =J7 9012-549
Disodium guanosine-5'-monophosphate crystn - 23536V/13
EDA 22.10.74 YEDA RES & DEV CO LTD B01 C03 D13 =CA 1055-484
1-Alpha-hydroxy-provitamin D3 prepn - 16885X/10

ANT/ 19.11.76 ZANTOPP H D22 J01 =DS 2652-673
Biologically active gas purification in closed vessel - 38672A/22

BDE
811 Q00
978 S01
983 S30
859 T22
964 R05
812 B24

BDE
006 Q00
-162 B22
-399 B24

BD
574 Q00
961 S08
814 S51
643 T27
754 T30
960 U35
7 972 W29
3-748 Q01
2 616 Q01
5 914 A26
3-574 B24

D
1 380 R20
0 583 R39
5-052 S08
8-098 S15
7-637 S33
7 455 S37
5-052 B24

AD
1-827 R20
7 655 R22
8-678 R36
2 878 R39
4 557 S21
2 587 S44
4-320 T41
8-973 V26
8-678 B24

DF
39-695 R36
25-361 R50
39-171 T10
99 860 T21
25-278 T37
39-695 A29
12-537 B24

R D
74 269 R38 +
27-245 S13
27-244 S13
27-243 S13
78-043 S15
01-609 S16
32 960 S20
89-880 T03
015-807 T20
905-422 T31
793-710 T44
793-711 T45
914-686 T48
047-365 T50
505-017 U28
405-246 V28 +
143-548 V45 +
411-376 V50 +
411-375 V50 +
963-783 X26 +
979-425 X38 +
768-659 X50 +
793-710 Y22
158-842 B02 +
159-138 B06 +
793-831 B11 +
793-711 B24 +

-R DJ
539-051 R44
060-046 S28
073-112 T01
291-531 T40
931-882 U35
060-046 B24

-R BD
750-641 R46
2024 586 R47
7007 262 R47
2043 475 S17
527 272 T47

GB 1317-027 U20
CA 929-476 U29
DS 2024-586 B24

11910-S DM
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ZA 7003-836 S09
DT 1961-562 S26
NL 7017-989 S26
DL --84-117 S42
FR 2072-986 T01
CH -538-552 U40
GB 1333-229 U41
DS 1961-562 B24

14392-S BD
DT 2037-988 S08
FR 2060-327 S37
US 3684-652 T35
GB 1300-798 T51
CA -934-312 U41
J7 3041-555 U50
US RE28-886 X28
DS 2037-988 B24

37518-S DE
NI 7017-132 S22
US 3689-362 T38
J7 8028-990 A37 +
J7 9012-540 B24

54472-S DE
CA -878-421 S34 +
DS 1695-505 B19 +
J7 9012-552 B24 +

56984-S DE
BE -763-418 S35
NL 7102-362 S37
J4 6003-273 S44
DT 2108-556 S50
FR 2078-976 T05
ZA 7101-093 T41
GB 1292-572 T41
US 3821-421 V28
CA 960-081 W03
CH -577-275 X34
NL -155-181 A05
DS 2108-556 A18
J7 9012 550 B24

03643-T DE
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NL 7108-926 T03
J4 7001-985 T06
FR 2100-009 T26
US 3775-349 U49
GB 1349-554 V14
J7 5017-204 W29
DS 2132-300 B24

40635-T ADE
BE -776-620 T25
NL 7117-091 T26
DT 2161-728 T27
J4 7012-325 T27
FR 2118-063 T46
ZA 7108-295 U38
CA -944-654 V18
GB 1374-419 V47
CH -585-555 Y18
J7 9011-805 B24

49201-T ADE
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BE -778-022 T33
FR 2121-774 T50
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CH -581-674 X52
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60017-T CD
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FR 2126-365 U03
GB 1366-138 V37 +
DS 2208-594 B24 +

74301-T AD
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DS 2118-820 B24

27713-U D
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BE -789-876 U22
ZA 7207-396 U27
FR 2165-701 U43
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CH -540-652 U47
GB 1400-038 W29
SU -458-963 W40
IL --40-594 W41
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34532-U BD
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NL 7217-410 U28
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DT 2262-497 U29
ZA 7206-026 U38
ZA 7206-027 U38
FR 2164-750 U42
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02874-V D
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05538-V AD
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CH -590-303 Y36 +
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05656-V D
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ZA 7305-015 V27
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CH -579-940 X42 +
CA 1024-082 A05 +
US 4156-644 B24 +

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J7 9012-557 B24

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US 3933-877 X05 +
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31499-V BD
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J7 9012-555 B24

42065-V D
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44187-V BCD
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J7 9012-532 B24

49289-V ABD
J4 9025-189 V27
J7 9012-553 B24

58455-V ABDF
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SW 7403-922 V47
DK 7401-573 V48
FR 2222-383 W03
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PT --61-599 W14
ZA 7401-842 W18
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AR -201-575 W42
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IL --44-510 Y16
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SU -620-218 B24

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J7 9012-556 B24

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DT 2462-882 B24

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J7 9011-804 B24

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J5 0088-209 W37
AR -201-790 W46
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OE 7408-129 X40
US 3988-440 X45
HU T012-925 Y10
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SU -619-187 B24

36550-W DEJ
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J7 9012-431 B24

40991-W DE
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DT 2504-374 W34
DK 7500-362 W43
FR 2259-544 W47
J5 0123-854 W48
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DL -127-568 A06
DL -129-289 A14
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OE 7706-553 B09
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CA 1055-412 B24

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OE 7409-723 B22 +
SU -620 202 B24 +

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FR 2261-279 W49
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66306-W BD
J5 0052-288 W40
J7 6026-514 X36
DT 2510-990 X40 +
DS 2510-990 B24 +

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DK 7504-388 Y24 +
FR 2326-957 Y28 +
IL --48-153 Y51 +
GB 1513-406 A23 +
CA 1055-402 B24 +

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ZA 7502-492 X31 +

DL -121-799 X41 +
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HU T014-562 A12 +
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SF 7800-202 A24 +
SF 7800-201 A24 +
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DL -132-297 A46 +
OE 7702-054 A48
OE 7702-052 A48
DK 7802-873 B03 +
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HU T015-976 B07 +
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7 16020B D13+P1
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2 33342B B04D16
7 37247B D15
8 72923A D11
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*390 44572B A97D25E17F06
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*141 44605B D13E24
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*010 44746B A97D25E19
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*091 44799B A91D15F09G02
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NL 7713

=110	42631B	D14P1+P6
* 115	45195B	D18
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* 399	45212B	A97D25E19

NO 7703

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=495	78140A	D21L02P3
=506	31587B	D25E19F06
=567	31595B	D15
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SU -620

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SW 7809

=600	44435B	C03D13

US 4156

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CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

WEEK B25
8 AUGUST 79
45674B - 47142B

ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB. DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	12 JUN - 18 JUN 79	872,671 - 872,855
BRAZIL	5 JUN 79	7,706,221 - 7,902,024
CANADA	5 JUN 79	1,055,651 - 1,056,100
DENMARK	28 MAY 79	7,702,648 - 7,805,271
W.GERMANY		
-DAS	13 JUN 79	1,455,243 - 2,851,217
-OLS	13 JUN 79	2,537,701 - 2,853,787
FRANCE*	13 APR 79 (BOPI 18 MAY 79)	2,403,006 - 2,403,726
UNITED KINGDOM	20 JUN 79	1,547,381 - 1,547,610 2,009,571 - 2,010,060
ITALY	20 MAR 79	1,029,501 - 1,030,000
JAPAN		
-Unexamined	—	47,026,313 - 53,068,660
	8 MAY - 15 MAY 79	54,056,701 - 54,060,302
-Examined	24 MAY - 30 MAY 79	79,012,561 - 79,013,440
NETHERLANDS	4 JUN - 10 JUN 79	7,713,263 - 7,811,918
NORWAY	28 MAY 79	7,701,667 - 7,803,711
FINLAND	31 MAY 79	7,702,404 - 7,803,130
SOVIET UNION	—	202,272 - 621,399
SWEDEN**	5 JUN 79	7,709,642 - 7,903,492
UNITED STATES		
-Reissues	5 JUN 79	Re30,017 - Re30,024
-Defensives	5 JUN 79	T983,001 - T983,011
-Patents	5 JUN 79	4,156,942 - 4,157,591
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*Printed patents actually published late May - early June, 1979

**Includes numbered Basics from Weeks B07 and B08

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

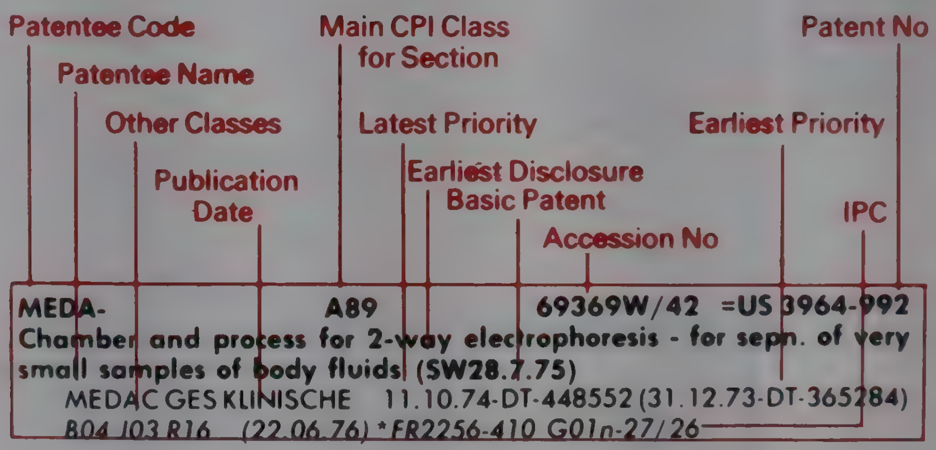
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
IPC
Patent No

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

★ D11 B/25 ★BR 7707-381
rge pipe accessory - cuts or shapes pies, sweets, etc.
ISTA B 03.11.77-BR-007381
05.06.79) A21c-11/10

/ D11 59304S/37 =DS 2108-720
d filled dough manufacture
YASHI T (HAY /) 24.02.70-JA-015254
*13.06.79) *DT2108-720 A21c-09/06*

stallation which, starting with a dough mantle enclos-
filling produces a dough laminate with a desired num-
f layers for leaf pastry, etc. has a layering arrange-
above a conveyor belt formed by a pressing plate
is movable up and down.
the portions consisting of a dough mantle with a fill-
oll down a feeder on the belt, the plate presses them
her.24.2.71 as 108720(7pp1045)

D11 25189V/14 =DS 2246-214
frequency baking oven - having dough raising, crustless
king and deep freeze zones
EIN H G KG 21.09.72-DT-246214
*(13.06.79) *DT2246-214 +A21d-08/06*

ry prods. and esp. small crusty cobs are produced in
class condition and oven fresh without any detectable
of quality by the consumer. The cobs with which stale,
, warmed-up articles cannot be compared are from
ded dough raised bacterially, at a suitable tempera-
and baked immediately afterwards.
his preliminary baking is carried out so that whilst
goods are well done, there is no crust formed. The
s are then deep-frozen and only baked to give a crust
ediately before eating.21.9.72 as 246214(5pp1045)

/ ★ D11 45775B/25 ★DT 2754-459
d, mechanical prodn. of pastries, esp. cakes - using two
ing surfaces to form rolled up dough layers with fillings
MRICH E 07.12.77-DT-754459
(13.06.79) A21c-03/06

cy pastries, esp. cakes having layers wound in a spiral
produced by two guiding surfaces on which the two
s of a cylinder rest. The guiding surfaces run parallel
ach other and one end of each rests on the worktable.
ir inclination is adjustable.
his simplifies and speeds up prodn. of pastries of this
. The rolling out and cutting into separate strips,
owed by a coating process for the filling, is eliminated.
device is partic. applicable to hotels, restaurants,
, as well as in bakeries. 7.12.77. as 754459 (24pp1045)

G= ★ D11 46934B/25 ★SU -621-333
gh for heavy pastry prepn. - using beta-fructofuranosidase
yme to weaken cohesive strength of gluten and facilitate
cessing
KAZGIPROPISHCHEPROM 11.03.77-SU-461852
D16) (17.07.78) A21d-08/02

ermediate product for the prepn. of heavy pastry,
imed in Parent Patent 431853 is prepd. with use of β-
ctofurnosidase.
This process is improved by using ferment prepn. 'Protosubtilin G 10X' (RTM) having high content of β-fructofuranosidase whereby the cohesive strength of gluten is reduced and, hence, the kneading of the dough is accelerated (up to 4 times), and the rolling and laying aside of the dough is shortened or completely eliminated. The 'Protosubtilin' prepn. is introduced pref. in an amt. of 0.01-0.02 wt.% (w.r.t. the flour) during the prepn. of the dough after the introduction of the flour.
Sevryukova, G.F., Vitevskaya, A.V., Musienko, N.D. et al. Bul. 32/30.8.78. 11.3.77. as 461852 Add to 431853 (5pp70)

INTT D11 08604A/05 =US 4157-403
Microwave baking partly baked bread rolls - to reduce baking time and packaging in hot shrink foil
INT TELEPH & TELEG CORP 12.07.76-US-704270
*(05.06.79) *DT2729-241 +A21d-06*

Brown and serve rolls are processed by preparing a dough, forming the individual rolls, placing the rolls in sales cartons, proofing the rolls for 7-12 mins., utilising microwave energy of frequency 9.15 MHz and flux density 11-34 watt hours per lb., and baking rolls for 4-6 mins. by similar means. Pref. the baked rolls are wrapped, while hot, with a shrink film and then passed through a heated shrink tunnel.

Prodn. time by microwave process is less than by conventional methods. Baking is effected in the sales carton eliminating the need for handling and transfer. Shelf life of prods. are increased. 12.7.76 as 704270 (3pp931)

USDA ★ D11 47086B/25 ★US 4157-406
Substitute for chlorine-bleached flour - comprises heat treated unbleached flour and partially swelled starch
US SEC OF AGRICULTURE 15.02.77-US-768917
(05.06.79) A21d-02/36 A21d-06

A flour-starch mixture suitable for making high sugar content baked goods is prepd. by (a) heating unbleached wheat flour to 49-93°C. for 1 hr. to 10 weeks; (b) mixing starch with water and heating the slurry to 54-71°C. for sufficient time to cause swelling of starch granules without fragmentation; (c) mixing 3-15 pts. treated flour with 1 pt. of the recovered starch.

Baked goods prepd. from the mixt. have good volume, grain, texture, colour and eating quality, comparable with those obtd. using chlorinated flours. The process does not use noxious chemicals, and the product can be marketed in countries where bleached flour is banned. 15.2.77 as 768917 (4pp955)

WILL/ ★ D11 47124B/25 ★ZA 7702-996
Appts. for prepn. of foodstuffs - comprises die plate with apertures sepd. by ribs for mfr. of sticks from dough material
WILLEMSEN W H 18.05.77-ZA-002996
(19.02.79) A21c-11/18

D12: MEAT; FISH PROCESSING

UNIC ★ D12 45696B/25 ★BE-872-775
Tubular cellulosic wrapping, esp. for sausages - coated inside with fatty acid cpd., for easy peeling after treatment
UNION CARBIDE CORP 15.12.77-US-860333
A97 (14.06.79) A22c C08j

The wrapping has its interior surface covered with a coating comprising essentially a water-dispersible salt or ester of a satd. fatty acid applied in amt at least 0.006 mg/cm^2. The wrapping can be filled with good product and can be easily unstuck from the food product after they have been treated in the wrapping.

In a further embodiment as above, the wrapping and coating contain at least 15% humectant based on the wrapp-ing plus wating. The products are prepd by applying the appropriate coating compsns. to give a coating contg. pref. not above 1.085 mg/cm^2 of the cpd.

The wrapping is esp. used for sausages in which the wrapping is removed before final wrapping. The use of the above additive enables fast automatic peeling of the food products without damage to the surface. 14.12.78 as 872775 (24pp597)

RHEE ★ D12 B/25 ★DK 7802-812
Filler funnel for sausage machine
RHEEM MFG CO 22.06.78-DK-002812
(28.05.79) A22c-11

NMHB ★ D12 45743B/25 ★DT 2738-845
Appts. for sepg. bone structure from fish - cuts off passable parts from spine and tail fin SW 26.3.79)
NORDISCH MASCH R BAADER 29.08.77-DT-738845
(13.06.79) A22c-25/16

Those parts of the bone structures of filleted fish which are capable of passage, are removed mechanically by a pair of cutting tools rotating in a vertical plane and separated horizontally from each other by a gap of predetermined size.

In front of the cutting tools there is a feeder surface arranged horizontally or inclined, reaching towards their points of action. The feeder surface is formed by two flat surfaces joined by a ''V''- of ''U''- form depression which opens into the gap between the cutters. Above the feeder surface before the cutters a pair of guide discs which can be rotated, are fitted. Their undersurfaces subtend an acute angle to the flat feeder surfaces, and their closest approaching circumferential points extend into the depression, and lie close to the guiding edges of the two flat surfaces, turning in the direction of motion.

Used for sepg. the side sections of the fish skeleton from the spinal column. The machine takes the bone structures of the filleted fish in quick succession, whilst guiding the spine and the tail fin automatically. The bone frameworks can be fed forward irrespective of their nature since the tail fin has a constant surface and the spine fits in the depression. 29.8.77. as 738845 (13pp1045)

SAND- D12 75728X/41 =GB 1547-582
Treatment of putrefactive meat and fish waste - for prepn of manure, animal feeds and fuel oil
SANDO IRON WORKS CO 23.05.75-JA-061711
*C03 H09 P41 +P34 (C04 D13 D15) (20.06.79) *BE-842-053 B02c-18/40*

Putrefactive wastes are crushed and sepd. into solids and liqs., the solids being dried, asepticised and powdered, and the liqs. deodorised and further divided into an aq. portion and an oil portion.

Asepsis is pref. effected by UV radiation. The wastes may be steamed after crushing to aid separation. The wastes are pref. foodstuffs, e.g. meat, fish, offal etc. and the processing reduces the extent of putrefaction and reduces odours. The prods. may be used as animal feed and fuel. 24.5.76 as 021344 (5pp1379)

INTE- ★ D12 46017B/25 ★GB
Treating bleached fish flesh to remove residual bleachin
using aq. soln. of alkali metal carbonate or bi:carbonate
INTEROX CHEM LTD 23.11.78-GB-045763 (23.11.77-GB-
(20.06.79) A23l-01/27

Fish flesh which has been whitened using an active
or an active chlorine bleaching agent is contacted
aq. soln. of an alkali metal bicarbonate or carbona
then sepd. from the aq. soln. Residual bleaching
is removed from the bleached fish without excessi
up of washing water.

Pref. the aq. soln. comprises 0.01-0.15 (esp.
0.1) molar Na- or K- (bi)carbonate and the contact
effected at 0-30°C, more pref. at ambient temp.
The wt. ratio of fish flesh to aq. soln. is pref. 1 :
esp. 1 : 3-10. 23.11.78 as 045763 (4pp914)

RACK- ★ D12 46558B/25 ★J5
Waste blood deodorisation and conversion to animal
fertiliser - by mixing with synthetic wollastonite and sulph
allowing to coagulate, and drying
RACK ENG KK 18.10.77-JA-124015
C03 (C04 D13) (15.05.79) A23k-01/04 C05f-01

In a method for composting waste blood, e.g. from
slaughter houses, fish markets, etc. 100 pts. wt.
blood, 0.1-50 wt. pts. of synthetic wollastonite, a
100 pts. wt. of sulphuric acid (98%) are mixed, pr
manner in which conc. sulphuric acid is gradually
ed onto waste blood until pH ⩽ 4.0 to release gase
ent in the blood and then synthetic wollastonite is,
sufficient stirring, added to the waste blood gradua
while stirring, then the waste blood sotreated is al
after5-20 mins. more stirring, to stand in another
tainer until the whole of the waste blood is coagula
a jelly state, and lastly the coagulated waste blood
dried, by heating or exposing to sunlight, to a pow
state.

Method shortens the water vaporisation time wh
ing by heating or under sunlight to 1/2-1/4 day com
to untreated waste blood, and also improves deodo
of waste blood. The gelled waste blood powder, ca
used as fertiliser or animal feed. Method is esp.
in the amino acid, starch, milk and fishery industr

Shortening of the vaporisation time can also be
by the addn. of an inorganic salt, e.g. borax, etc.,
alkali metal peroxide, e.g. sodium peroxide. 18.1
as 124015 (2pp117)

MIME= ★ D12 46935B/25 ★SU
Bleeding slaughtered animals and birds - using hollo
inserted in vicinity of heart, plus external electrode to
electric pulses
MINSK MEAT DAIRY 02.02.76-SU-320075
(17.07.78) A22b-05/04

Method of bleeding slaughtered animals and birds i
opening-up the blood channel with the working tool
subsequently collecting the blood. The yield of blo
increased and the quality of the meat is consequent
increased by feeding low frequency electric curren
after opening up the blood vessels in the vicinity of
heart. The values of the current and voltage are
tively 10-150 mA and 2-120V, with the frequency o
pulse train 20-120 per minute and the duration 10-
Blyakher, E.S., Litovko, V.I., Petrovich, V.A.
Bul. 32/30.8.78. 2.2.76. as 320075 (2pp29)

MEAT= ★ D12 46936B/25 ★SU
Prepn. of sausage stuffing - by simultaneously comminutin
and cooling meat in worm-cutter using inert gas coolant at
pressure
MEAT IND RES INST 10.03.77-SU-461845
(17.07.78) A22c-11

The sausage stuffing is prepd. by comminuting and
meat, and then cooling, is improved by carrying o
cooling simultaneously with the comminution and s
The cooling agent is introduced in the liquid or gas

nder a press. of 6-8 atm.
cooling agent is pref. N_2, CO_2, He, or their mixt.
ffing is cooled to a temp. between -3 and -6°C.
method, the quality of the product is improved.
ov, V.M., Mamadzhanov, Yu.R., Pirogovskii, N.
l. Bul. 32/30.8.78. 10.3.77. as 461845 (2pp70)

★ D12 46937B/25 ★SU -621-336
oking or drying chamber - has rotating shaft to which conical
are fastened, and base vibrator to interact fish with working

V-BLACK SEA FISH 09.02.77-SU-452085
5.08.78) A23b-04/04

for heat treatment of food products, e.g. for
ng and drying fish, consists of a vertical chamber
helves distributed in rows in a vertical shaft to
he product around, plus a system for supplying the
ng medium. Construction is simplified and opera-
reliability is increased by making the shelves as
ted cones fastened in pairs by their larger diamet-
The top cone of each pair has a smaller diameter
e lower cone is mounted on the shaft leaving a gap
t the products can be transferred from row to row.
helves are also fixed so that they can vibrate. At
ttom of the shaft a helical chute is freely positioned
t it too can vibrate, and serves to discharge the
rom the chamber.
l, B.E., Belogortsev, A.I. Bul. 32/30.8.78.
7. as 452085 (3pp29)

★ D12 B/25 ★SW 7711-703
c shock appts. to stun pigs before slaughter - clamps
odes onto pig's ears for predetermined duration when pig's
strikes bottom of metal basket
TERSSON L 18.10.77-SW-011703
(05.06.79) A22b-03/06

pig is made to put its head into an open steel basket
a closed front wall made of netting. When the pig's
strikes the netting, it actuates a pair of tongs which
p onto the pig's ears.
he tongs carry electrodes which deliver an electric
k of such voltage, current and duration (e.g. 130V,
, 8s) as to knock the pig unconscious. The tongs release their grip automatically so that the pig can be removed for slaughter. 18.10.77 as 011703 (-pp1407)

RALS D12 86891X/46 =US RE30-023
Protein fortification of extra pumped meats - with protein hydration retention and no protein sepn.
RALSTON PURINA CO 11.03.76-US-665830 (26.08.74-US-500219)
*(05.06.79) *US3989-851 A23b-04/02 A23l-01/27*

A meat prod. is prepd. of the type where a liq. medium is prepd. contg. a nutritional protein isolate, water and curing salt, stitch pumped into natural meat muscle tissue and allowed to cure.

Liq. medium is prepd. by first hydrating ≥7 wt.% w.r.t. medium, a salt tolerant protein isolate which forms a gel upon heat setting in water; then admixing the curing salts; then stitch pumping the meat tissue with medium to 140-165 wt.% w.r.t. its green wt.

Upon curing, the medium cooks to a uniformly distributed meat-like gel. The extra pumped meat prod. maintains the same nutritional protein value and identical textural properties of natural meat tissue. The protein retains its hydrated form in the final prod., and there is no protein separation. 25.5.78 as 909598 Reissue of 3989851 (+26.8.74-US-500219) (3pp931)

WHIT- ★ D12 B/25 ★ZA 7802-283
Curing fish to simulate smoked fish - by spraying raw fish with smoke extract and preservative salt in curing zone, and conditioning at controlled temp.
WHITE STEVENSON LTD (VOLS-) 22.04.77-GB-016902
(01.03.79) A23b-04

Curing fish to simulate traditionally smoked fish including moving raw fish through a curing zone and a conditioning zone, while in the curing zone projecting onto a fine spray of a curing medium contg. a smoke extract and a preservative salt while applying an electrostatic potential to the spray in the spray head from which it is projected, an in the conditioning zone, conditioning the fish at a controlled temp. 21.4.78 as 002283(11pp)

D13: OTHER FOODSTUFFS

★ D13 45698B/25 ★BE -872-781
itutes for egg albumin and skimmed milk solids in food prods. -
non heat denatured sour whey protein
AUFFER CHEMICAL CO 15.12.77-US-860667
(15.06.79) A23j

l prods. contain egg albumin (I) and milk solids (II),
hich up to 75 wt.% (dry solids basis) of the (I) and up
00% of the (II) are replaced by a mixt. of (a) 75-100
% of a non heat denatured whey protein concentrate
g. ≥35% protein, made largely from sour cheese
y and (b) 25-0% of another protein-contg. prod. based
whey, in amt. of ≥ 90 wt.% of the protein replaced.
lactose content of the prod. is ≯10% of the original
ose content of the non-replaced non-fat milk solids.
Process allows both egg albumin and milk solids to
replaced by whey protein concentrate material, which
es economic advantages. The prods. are esp. useful
he prodn. of high protein confectionery and beaten
ds. having improved texture. 15.12.78 as 872781 (F1)
pp513)

★ D13 45702B/25 ★BE -872-796
horbic and ascorbic acid 6-fatty acid mon:ester prepn - by
ction of fatty acid and 6-hydroxy-acid using at least 10 moles of
ydrous hydrogen fluoride
PFIZER INC 16.12.77-US-861506
B03 E13 (15.06.79) A23l C07c C11c

ocess for prodn. of a fatty acid ester in position 6 of with a 12-18C satd. fatty acid in the presenceof at ≥ 10 moles of anhydrous hydrogen fluoride per mole of fatty acid and maintaing the contact of HF with the reactants until monoesterification is achieved.

The 6-fatty acid esters of (I) and (II) are useful as antioxidants for foods having a high concn. of fatty materials. The esters have better solubility in fats and oils than the free acids and the same antioxidant properties. The ascorbic acid ester may also be used as a source of vitamin C. Known process for prodn. of ester uses concentrated sulphuric acid as catalyst and solvent with an excess of one reactant but gives a yield of only 50%. The present process allows reactants to be used in stoichiometric quantities and gives yields of about 60-95%. 15.12.78 as 872796 (11pp395)

FLEM- ★ D13 B/25 ★DK 7702-648
Treatment of straw to improve its food value
FLEMSTOFTE-MADS AMB 15.06.77-DK-002648
C03 (28.05.79) A23k

UNBR- ★ D13 45725B/25 ★DS 1492-985
Pelletising powdered foodstuffs, e.g. cocoa powder - by adding crystallising binder syrup, e.g. dextrose, saccharose etc., pelletising and agglomerating
UNITED BRANDS CO 28.09.64-US-399701
(13.06.79) A23l-01

Pellets having particle size 149-840 μ are prepd. by mixing a powdery material, suitable as a food or food substitute, with a crystallising binder soln., crystallising, pelletising and agglomerating. The binder crystals consist of a pre-crystallised binder. The available binder moisture during its crystallisation is adjusted so that after water absorption by powdery material, 2.5-20 (5-10) g water are available for each 100 g powdery material and the material is pelletised without forming a paste.

Process is suitable for the formation of instant cocoa- or milk powder, carrageen gel, sesame protein flour, fumaric acid, Na Al sulphate, $NaHCO_3$, castor sugar or vanilla powder. Crystallisation is quick and complete. The prod. can be solubilised without lumping. Taste and protein content are unipaired by heating or drying. Free-flowing, dense, non-hygroscopic pellets are obtd. which are suitable for prolonged storage. 7.5.65 as 492985(12pp200)

PROC D13 76645U/50 =DS 2326-444

Enriching protein food stuffs - with n-acetyl-1-methionine

PROCTER & GAMBLE CO 25.05.72-US-256860
*E13 (13.06.79) *NL7307-293 A23k-01/16 A23l-01/30*

A foodstuff for humans and animals comprises an edible protein poor in S-contg. amino acids enriched by the addn. of an N-acyl-L-methionine, the acyl gp being derived from 2-9C fatty acids. A suitable foodstuff is soyabean protein enriched with 0.52% acetyl-L-methionine.

The L isomer has a greater effect on growth rate than the D or DL isomers. 24.5.73 as 326444 Div. in 2366239(8pp)

UNIU D13 14033A/08 =DS 2737-360

Solns. contg. urea water and calcium chloride - used as stable ruminant feed additives and fertilisers

UNIV OF GLASGOW 16.02.77-GB-006431 (21.08.76-GB-034931)
*C03 (C04) (13.06.79) *BE-857-929 A23k-01/22 C05g-01*

Liq. feedstuff for agricultural use (e.g. additive for ruminant feed or fertilizer) comprises urea, calcium chloride and water. The three components are interrelated in wt. amts independent of any other constituent by the relations 38% $\leqslant$ urea $\leqslant$ 60%, 0 < $CaCl_2$ $\leqslant$ 25%, water to 100%.

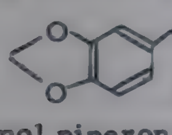
For each percentage amt. x of urea in the range 38-60% the max. amt. of $CaCl_2$ is $42.27-0.455x$; for each percentage amt. x of urea in the range 38-50%, the min. amt. of $CaCl_2$ is $104.15-2.083x$; for each percentage amt. x of urea in the range 50-60%, the min. amt. of $CaCl_2$ is $1.50x-75.00$ 18.8.77 as 737360 Div. in 2759413 (+14.10.76-GB-042661) (6pp913)

HAAR ★ D13 45730B/25 ★DS 2757-506

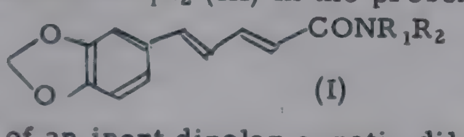
Piperonylidene-crotonamide derivs. prodn. - by reacting piperonal with crotonic acid cpds. in presence of alkali hydroxide and dipolar solvent

HAARMANN & REIMER GMBH 22.12.77-DT-757506
B02 C02 E13 (13.06.79) C07d-317/60 C07d-405/10

In the prodn. of piperonylidenecrotonamide derivs. of formula (I), piperonal (II) is reacted with a crotonamide of formula $CH_3CH{=}CHCONR_1R_2$ (III) in the presence of



(II)



(I)

0.05-0.5 mol alkali hydroxide per mol piperonal and of an inert dipolar aprotic diluent.

In the formula, R_1,R_2 are H, 1-6C alkyl (opt. substd. by OH), 1-6 C alkenyl, 5- or 6- membered cycloalkyl (opt. substd. by 1-4 C alkyl), or benzyl or phenyl (opt. substd. by halogen, 1-4 C alkyl or 1-4 C alkoxy), provided that R_1 and R_2 are not both H; or NR_1R_2 are 5- to 7-membered heterocyclic ring opt. contg. O, S or N as an additional hereto atom.

(I; NR_1R_2 = piperidino)(piperin) is the active flavour component of black pepper. (I; NR_1R_2 = pyrrolidino)(piperlin) is used as a component of pepper flourings, as is (I; R_1 = isobutyl, R_2 = H)(piperlonguminine). Piperin is also useful as an additive to germicidal preparations and as an analeptic in morphine or barbiturate poisoning. (I) generally can be used as insecticides or insecticide synergists. The process gives highly pure products in better yields than known processes. 22.12.77 as 757506(6pp280)

DSOM- ★ D13 45884B/25 ★

Accelerating white cheese prodn. from milk - by biologi before curdling to increase acidity, heating and salting

DSO MLETSCHNA PROMI 12.12.77-DT-755310
(13.06.79) A23c-19/02

White cheese, esp. curd chesse prodn. from cov comprises: (a) biologically ripening the milk befo curdling, until the degree of acidity is 1-2°T abo the initial degree of acidity; (b) lightly heating th to 36-38°C at 1°C in 3-4 min. and (c) working up cheese pieces for 10-30 min. at this temp. and s with 1.8-2.2 % NaCl.

Work cycle from curdling to packaging is reduce w.r.t. standard processes. 12.12.77. as 755310

ESCA- ★ D13 45915B/25 ★D

Steam chamber for cooking foodstuffs - works at temperature and pressure preventing possibility of c product

ESCAN METAL CANADA 05.12.77-US-857683
P28 (13.06.79) A23l-01/ A47j-27/16*

An installation for treating foodstuffs with steam, des a steam chamber and an arrangement for filli chamber with steam having means of feeding fluid bottom of the steam chamber. There is a heater the steam chamber for heating the fluid in the cha so as to produce steam, and there are means of a the steam to escape from the chamber, so that at pheric conditions are maintained inside the chamb

A condensation chamber for the escape of steam means of spraying a fluid onto the steam to conder and means of draining away the fluid and the conde steam. In addition there are means of circulating steam in the steam chamber, for pref. a fan with there are associated heaters for air to be circula the steam chamber.

Provides installation for treating foodstuffs wit steam in which the quality of the goods cannot be ged and specially constructed vessels are not nece since it works at or about atmospheric pressure. 29.11.78. as 851671 (17pp1045)

LOCH- ★ D13 45926B/25 ★DT

Cattle lick in carton sleeve with tear/off line - is cheap to easily handled and accessible

LOCHER & CO 08.12.77-CH-015078
C03 (13.06.79) A23k-01/16

Instead of expensive prodn. of blocks of salts, et cattle licks, or using plastic moulds which make a difficult for the animals, the starting material is a sleeve like carton.

The sleeve has a cover and a perforated line ru it for easy removal. Together with its cover it is on a holder through which a central peg projects, before the material cast has fully set, the sleeve and contents are removed for final hardening. A c hanging may be cast into the block. 2.12.78. as 85 (9pp1045)

ALBI- D13 57803X/30 =GB

Metal proteinates prepd by protease hydrolysis - t hormones, vitamins amino acids etc

ALBION LAB INC 11.09.75-US-612371
*(D16) (20.06.79) *US3969-540 C07g-07*

A metal proteinate is prepd. by enzymatically dige a protein source in an aq. soln. at 20-70°C to prod protein hydrolysate contg. polypeptides and undige protein.

The pH of hydrolysate is adjusted from 7.5 to 1 remove any interfering protons, then a metal is ad salt form to form the proteinate between the metal polypeptide, such that the molar ratio of polypepti metal is $\geqslant$ 2 : 1. The metal is iron, copper, zinc, anese, cobalt, chromium, calcium, magnesium or dium.

Proteinates formed are chelates of an enzymati digested protein with a brologically essential meta naturally-occurring vitamins and hormones in the are not destroyed. 16. 8. 76 as 034080 (5pp934)

★ D13 B/25 ★IT 1029-505
sauce prodn.
ONAL DAIRY PROD 16.12.67-IT-041476
).03.79) A23l

D13 B/25 ★IT 1029-625
compsn. for chronic uraemia sufferers
/ANNETTI S 18.10.74-IT-053618
).03.79) A23l

★ D13 46177B/25 ★J5 4057-471
ng bad odours from frying oils and fats - by collecting gas
aying with aq. soln. of hypochlorous acid or its salt
III T 17.10.77-JA-124937
(09.05.79) B01d-53/14

orous gas component is removed from oils and fats or frying foods such as meat croquettes. To remove s components such as acrolein having a stron stimul- malodour, which is produced when a raw animal oil t is heated at high temp., a produced gas is collect- a blower or fan through a hood to pass through a de- ng tank, which contains a horizontal porous plate the top end of a nozzle for spraying a water soln. of hlorous acid or alkali metal hypochlorite or alkaline metal salt, thus forming a shower in a space below rous plate. Due to the strong oxidising effect of this deodouring is made. 17.10.77 as 124937 (2pp26)

★ D13 46288B/25 ★J5 4058-245
erant mixt. for wet freezing of food - contains salt and
lene glycol additives
IYO FISHERY KK (MAEK-) 17.10.77-JA-123592
7 G04 (E34) (10.05.79) C09k-05

ezing mixt. for wet freezing contains 13-19 wt.% nd 16.23 wt.% propylene glycol as food additives. e freezing mixt. is used to freeze e.g. fish or meat. ood is frozen by bringing into contact with mixt. of . < -10°C. The freezing mixt. has a freezing point 1°C and sufficient fluidity.

an example, mixed aq. soln. is produced by mixing :.% salt and 20 wt.% of propylene glycol and used as :. Thebrine is cooled to < -10°C. 17.10.77 as 92 (3pp86)

/ ★ D13 46492B/25 ★J5 4059-310
dy for pompholyx - comprises eggs having high organic iodine
nt
MIMAE H 14.10.77-JA-122470
4 C03 (B06) (12.05.79) A61k-35/54

edy for pompholyx comprises as main component, having a high content of organic iodine. The egg is uced from birds (fowl) to which calcium iodide has administered. The eggs may be those of chickens, , Japanese quail, guinea fowl, etc.

dministration of calcium iodide to birds may be carr- out by blending with the feed. Suitable amt. of the tance is > 10 mg as iodide per kg of feed, pref. 75- mg per kg of feed. Iodine content in conventional s is 10-30 μg per egg. When calcium iodide is admin- red for example to chickens, eggs contg. 200 μg per after 5 days are produced. Pref. iodine content in s is > 100 μg per egg, partic. 200-1000 μg per egg. 10.77 as 122470 (2pp69)

A/ ★ D13 46507B/25 ★J5 4059-337
lded deodorant mfr. - by mixing lignite powder, rice bran,
gus seed obtd. from fermentation, binder and water, moulding
high temp. fermentation
HAYASHI M 19.10.77-JA-124567
*A97 C03 P34 (C04 D22) (12.05.79) A61l-09/**

Pts. wt. of lignite powder of < 1 mm grain size, -400 pts. wt. of rice bran and 1-8 pts. wt. of a fungus d obtd. from the fermentation at at least 50°C of a te mixt. obtd. by mixing activated sludge from the ste water treatments from foods mfr., a waste grain d, lignite powder and water) a binder, e.g. starch, eat powder, CMC, polyvinyl alcohol, sodium alginate, ., and water are mixed into a paste. The wet mixt. is ulded into a desired shape and the moulded mixt. is subjected to a high temp. fermentation at > 45°C.

orisation for every purpose and also convenient in handling because the shape of the deodorant can be freely changed according to the object of application. For example, the deodorant can be used as filter bed for sprinkling filter process or can be placed in toilet or aeration tank for deodorisation. The deodorant can be used as fertiliser or feed for animals as needed. 19.10.77 as 124567 (7pp117)

AJIN ★ D13 46510B/25 ★J5 4059-351
Water-swellable dried food of high protein content - prepd. by freeze-drying a mixt. of vegetable protein, fat, water and swelling agent
AJINOMOTO KK 18.10.77-JA-124690
(12.05.79) A23l-01/20

Dried food (I) of high protein content is prepd. by freeze-drying a mixt. (II) of 10 wt. pts. of vegetable protein and/or albumin-contg. animal protein, 2-40 wt. pts. of fat, 30-140 wt. pts. of water and 0.01-5 wt. pts. of swelling agent, such as glycerin, propylene glycol and sorbitol.

(I) can be swelled easily with water and changes to a soft soy bean curd-like (Tofu) food. Specifically, after pH of (II) is adjusted to 6.0-8.0, (II) is agitated to prepare em-ulsion. The emulsion is frozen at -50 to -10°C, e.g. (-40 to -20°C) and dried, opt. after treatment at 50-150°C. Ascorbic acid, alginic acid, polysaccharide, emulsifier and other additives may be added to (II). 18.10.77 as 124690 (4pp 42)

ASAG ★ D13 46540B/25 ★J5 4059-655
Food refrigerant compsn. - comprises propylene glycol aq. soln. contg. di:sodium glycol and/or nicotinic acid amide
ASAHI GLASS KK 21.10.77-JA-125810
E17 G04 (E13 E34) (14.05.79) C09k-05

The compsn. consists of a propylene glycol aq. soln. contg Na_2HPO_4 and/or nicotinic acid amide. The propylene glycol aq. soln. contains 20 to 60 wt.% of propylene glycol. The amt. of phosphate to be added is 0.1 to 1 pt. wt. to 100 pts. wt. of the propylene glycol aq. soln. and the amt. nicotinic acid amide to be added is 0.001 to 1 pt. wt. to 100 pts. wt. of the porpylene glycol aq. soln. The pH value of the compsn. is adjusted to 9 ~ 12.

This compsn. is used to cool food directly as it is safe as food additive. The compsn. does not corrode cooling pipe.

In an example, 0.3 pts. wt. of Na_2HPO_3 was added to 100 pts. wt. of a 60 wt.% propylene glycol aq. soln. to prepare a refrigerant compsn. 21.10.77 as 125810 (3pp)

See page 14 #J5 4060-169

NOSA ★ D13 46652B/25 ★J7 9013-398
Feed for silk worms - contains rye and/or oats as essential components
NIPPON NOSAN IND KK 23.06.71-JA-044849
C03 (30.05.79) A23k-01/18

Feed compsn. contains rye and/or oats as essential components. The rye or oats pref. contains at 5-90 wt. %. Other components of the compsn. may be soybean, yeast, aminoacids, carbohydrates, vitamins, minerals, agar-agar, etc.

The compsn. provides fast and uniform growth of silkworm. 23.6.71 as 044849 A23k-1/18 (30.5.79) NIPPON NOSAN KOGYO KK (4pp83) (J4 8013177)

MITN D13 20198A/11 =J7 9013-432
Dithionite deoxygenating compsn. contg. fibrous material - is used for preserving food, preventing oils and fats from rotting and preventing oxidn. of metals, chemicals, etc.
MITSUBISHI GAS CHEM IND 15.07.76-JA-084168
*E36 M14 (D23) (30.05.79) *J53010-377 B01d-53/16 B01j-02/22*

The compsns. comprises 100 pts. wt. of deoxygenating agent, composed mainly of dithionite salt, admixed with 1-50 pts. wt. fibrous material. The deoxygenating agent is composed mainly of dithionite along with e.g. water, alkali metal and activated carbon as well as alcohol. The fibrous material is e.g. pulp, cellulose, etc. pref. in powder form.

The compsn. can be easily tabletted with increased physical strength smoothness and improved appearance. The tablets are easy to handle, have good oxygen adsorption and do not accumulate heat produced during deoxygenation. 15.7.76 as 084168 B01d-53/16, B01j-2/22 (30.5.79) MITSUBISHI GAS CHEM IND (5pp)(J5 3010377)

CEPA D13 38857W/23 =SU -436-905
Preventing caramelization of vegetable hydrolyzates - by adding sulphite lye or analogous concentrates to increase safety and effectivity
CELLULOSE PAPER IND RES 19.05.72-SU-788445
*F09 (D16) (17.07.78) *SU-436-905 C13k-01/02 D21c-03/02*

Caramelisation of hydrolysates obtained by hydrolysis of vegetable matter in e.g. a sulphate lye can be prevented by addition of a concentrated sulphite lye. The effectiveness of this method can be enhanced by introducing the sulphite lye concentrate during the hydrolysis process. Pref. a sulphite lye concentrate is introduced in an amt. of 0.03-0.07%; alternatively, a concentrate of a sulphite-alcohol liquor or the liquid remaining after the yeast cultivation is used in an amt. of 0.03-0.04%.

The concentrate is added directly to the water used for the hydrolysis process, e.g. hydrolysis of wood. The amt. of the solids in the concentrate is 2.5-4.0 kg. per ton of dry cellulose (after the cooking). The hydrolysis can preceed the sulphate cooking.

Orpov, V.I., Khristyuk, I.A., Puzykev, S.A. et al. Bul. 32/30.8.78. 19.5.72. as 788445 (4pp70)

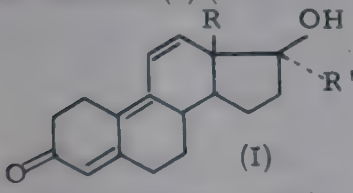
MOFA= ★ D13 46801B/25 ★SU -620-474
High concn. mono-glyceride sepn. for use in food prods. - by extn. of glyceride mixt. with hot non-polar organic solvent, e.g. benzene, and prod. crystallisation, to increase purity and yield
MOSC FATS RES INST 05.07.76-SU-380650
E17 (17.07.78) C07c-67/48 C07c-69/30

Monoglycerides are used in food industry as additives improving flavour and storability of dairy prods. margarine, bakery and confectionery prods. etc. In high concn. the above effect is increased. Monoglycerides are sepd. from glyceride mixt. contg. 30-65% monoglycerides in higher yield by treating the mixt. with 3-7-fold excess of non-polar organic solvent, pref. chloroform, benzene cyclohexane, hexane, carbon tetrachloride, petroleum ether etc. at 40-70°C followed by the crystallisation of the final prod. at 19-30°C. The yield is 95-100%.

Petrova, M.K., Yunisova, P.K., Boronets, G.P. et al Bul. 31/25.8.78. 5.7.76. as 380650 (3pp938)

ROUS D13 44628U/32 =SU -621-305
Increasing egg yields - with gona-4,9,11-trien-3-ones
ROUSSEL UCLAF 20.01.72-FR-001911
*B01 C03 (07.07.78) *DT2303-026 A23k-01/16*

Additive for poultry feed consists of or contains ≥1 cpd. of formula (I) (where R is lower alkyl and R' is opt. halo-substd. unsaturated 2-4C hydrocarbyl, or 3-5C cycloalkyl). The additive brings about a qualitative and quantitative improvement in egg-laying. Esp. with hens (I) brings about earlier laying of a greater number of eggs, the individual eggs being on average heavier and having harder shells.



(I)

Grandadam, J.A. Bul. 31/25.8.78. 19.1.73. as 870828 (5pp)

BUTT= ★ D13 46932B/25 ★SU -621-330
Cheese salting installation - with rows of trays above one another in frame with perforations, to allow brine to flow round and through each tray layer.
BUTTER CHEESE IND 04.11.76-SU-418050
P13 (02.08.78) A01j-25

Device for salting cheese, comprises trays mounted above one another on a base plate. The trays have perforated bottoms and there is a sprayer and a brine recirculation system. The brine is more uniformly distributed over the surfaces of the cheeses by providing a container with rows of horizontal guides for the trays, with the bottom of each tray made as two plates a short distance apart. The top one has complex perforations while the bottom one is provided with uniformly distributed hemispherical depressions with through holes. The container for the trays is one of several inside which the trays are arranged. The assemblies are placed underneath the sprayer and the brine is poured over them.

Shiler, G.G., Okinchits, M.I. Bul. 32/30.8.78. 4.11.76. as 418050 (4pp29)

VOLC/ ★ D13 46933B/25 ★
**Cheese curds-cream mixer for soft cheese prodn. -
measure for curds and pump proportionator for cream,
bladed mixer**
VOLCHKOV I I 28.03.77-SU-468409
P13 (02.08.78) A01j-25 B01f-07/08

Device for mixing cheese curds with cream whil
tinuously proportionating the ingredients in defin
by volume, has a receiving hopper with screw fe
cream measure, mixing chamber with screw and
mixer mounted on a shaft, and a cheese curds pr
ator positioned between the hopper and the mixing
ber. Construction is improved and productivity i
creased, by making the curds proportionator as t
mounted cantilever-fashion on drive shafts rotati
wards one another. Each rotor has a pair of blad
mounted so as to form a receiving chamber for th
as they pass towards the inlet opening of the prop
ator.

Volchkov, I.I. Bul. 32/30.8.78. 28.3.77. as 468
29)

MLFO= ★ D13 46938B/25 ★S
**Preservation of fruit and vegetables - includes cool
vacuum using preserving soln. contg. water-soluble cellu
alcohol, sorbic acid and water**
MOLD FOOD IND RES 24.12.76-SU-433949
(17.07.78) A23b-07/04

Fruit and vegetables are treated during cooling u
vacuum (for preservation) with a soln. contg. (in
water-soluble cellulose ether 0.25-10, alcohol 5-
sorbic acid 0.2-1; the balance is water.

By this method the cooling is accelerated and t
quality of theproduct is improved (the skin is dry)
method is suitable for treatment of large fruit and
tables. The soln. is sprayed into a vacuum cham
where the fruit or vegetables are cooled, and form
on the surface of the product.

Gorshunova, G.B., Kamenshchik, Ya.I. and Matv
A. Bul. 32/30.8.78. 24.12.76. as 433949 (2pp70)

BERE/ ★ D13 46939B/25 ★SU
**Tomato concentrate with reduced cellulose content
includes washing tomatoes, comminuting, heating, coolin
through sieve and partly evaporating**
BEREZNYAK E D 02.03.77-SU-457529
(17.07.78) A23l-01/06

Tomato concentrate is prepd. by washing tomatoe
comminuting, heating, forcing through a sieve and
evaporating to the required consistency.

The cellulose content of the final product is red
and, hence, the quality of the product is improved
cooling the mass to 45-50°C before the forced sie
The preceding heating is pref. carried out at 90-9

Bereznyak, E.D., Motornyi, I.T. and Shevchuk,
Bul. 32/30.8.78. 2.3.77. as 457529 (2pp70)

POTA= ★ D13 46940B/25 ★SU
**Intermediate potato product prodn. - includes washing
cleaning, comminuting, pressing, sulphiting and drying,
food grade starch substitute etc.**
POTATO FOODSTUFFS 21.03.77-SU-466822
(17.07.78) A23l-01/21

Processing of potatoes by washing, cleaning, com
sulphiting and drying, to obtain a potato intermedi
product is modified to obtain besides the intermed
product also a product suitable for use as a substi
edible starch. The modified process comprises c
uting the material to a grit (the comminution coeff
pref. 50-60%); pressing the mass after the sulphi
(pref. under a press. of 15-25 kg/cm^2, for 1-5 mi
viding the mass into two parts; drying one part to
moisture content; mixing it with the remaining par
obtain a blend having a moisture content of 33-35%
the blend at 100-130°C to 10-12% moisture content
screening to obtain an intermediate product and a
suitable for use as starch substitute. The cost is

Suboch, F.I., Shabeta, M.R., Trushina, T.A. et
32/30.8.78. 21.3.77. as 466822 (2pp70)

★ D13 46941B/25 ★SU -621-340

liquid products in vacuum with formation of hollow s - includes cooling, saturating with inert gas and spraying uum chamber, used in food industry

COW MEAT DAIRY INST (BDOC=) 03.03.77-SU-459434
(17.07.78) A23l-03/36 F25d-03

ng of a liquid product in vacuum with formation of es, by spraying the liquid into a vacuum chamber, nsified by cooling the liquid before the spraying to and then saturating the liquid with a gas inert with t to the liquid.

gas is pref. CO_2. The liquid is kept for 1-3 min. tact with CO_2 under a press of (4-6) x 10^5 Pa. This d can be used for granulating soured milk products, rves, products of biological fermentation, blood a, erythrocytes, whey, coffee and tea extracts, etc. in, V.V. and Nikitin, Yu.N. Bul. 32/30.8.78. 7. as 459434 (2pp70)

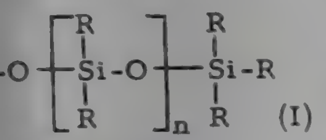
= ★ D13 46957B/25 ★SU -621-366

soluble substances encapsulated in cellulose acetate etc. - silicone pretreatment and pptn. from organic solvent with and drying, used as non caking fertilisers, etc.

AGRIC ACAD 04.02.76-SU-321466
C01 (C04) (19.09.78) B01j-13/02 C08l-83/04

:-sol. powdered substances (e.g. NH_4NO_3 or urea) ncapsulated in a polymeric sheath.

e material (e.g. NH_4NO_3 of particle dia. 40-50 mi-) is mixed with a soln. of a silicone polymer of ula (I), where R is 1-3C alkyl or aryl and n is 20-1000) in organic solvent e.g. aq. alcohol, alcohol or acetone and dried in air at 20-140°C; The treated material is suspended in cellulose ester or arbonate soln. (e.g. cellulose acetate in acetone); ecipitant for sheath (e.g. hexane) is added. and supert liq. is decanted and the prod. is washed with hexand dried in air at 40-45°C and then at 60-65°C.



$-O-\left[-\underset{R}{\overset{R}{Si}}-O-\right]_n-\underset{R}{\overset{R}{Si}}-R$ (I)

otrub, N.F., Zhartovskii, V.M., Bakhanova, R.A., . Bul. 32/30.8.78. 4.2.76. as 321466 (3pp1360)

/ ★ D13 B/25 ★SW 7712-156

substitute with reduced immunogenic protein content for s - has proteins partially broken down to give polypeptide(s) ver molecular weight

ANBY M G 27.10.77-SW-012156
03 (05.06.79) A23c-09/10

milk substitute for human babies or other baby mamm- contains proteins appropriate to the particular mamm- pecies.

he proteins are partially broken down to give polypep- s of lower mol. wt. than the original proteins, to redu- ne quantity of immunogenic proteins. 27.10.77 as 56 (-pp1407)

/ ★ D13 46994B/25 ★US 4157-017

tinuous prepn. of soft melt-resistant frozen confection - in closed -through appts. with saturator for gasifying confection mix

EID B J 26.02.76-US-661496 (30.03.73-US-346436)
(05.06.79) A23g-09

losed flow through appts. for the continuous prepn. of ozen dairy-type confection comprises a pump connected receptacle for projecting a liquid confection mix into aturator which atomises and gasifies the mix. A refrig- ted freezing chamber having a dasher is connected to saturator. A pressurised source of an edible refriger- is connected through a metering device to the saturator periodically adding a selected quantity of refrigerant he mix.

The appts. is closed and can retain both mix and pro- ssed confection for long periods of time with a low bac- ia count. An edible, evaporative coolant is incorporated o the mix for stabilising the consistency of the dispen- d frozen confection by cooling it further after it has been persed to atmospheric pressure. The appts. may be sily cleaned by substituting a suitable cleaner for the nfection mix. 26.2.76 as 661496 (13pp1044)

AVER/ ★ D13 46996B/25 ★US 4157-060

Viscosity controlled egg cooker - which oscillates egg during cooking until amplitude reaches preset threshold indicative of viscosity of egg contents

AVERY R W 24.01.77-US-761816 (15.12.75-US-640743)
(05.06.79) A23l-01/32

Appts. for heating an egg in a cooling process comprises a support pivotally mounted to a frame for oscillating the egg and a heater for heating the egg to cause the contents to harden and so alter their viscosity. A switch tripping member is mounted on a shaft of the support and engages a switch when a predetermined amplitude of oscillations is reached to terminate the heating process. The output torque of the motor for oscillating the egg is adjustable to vary the amplitude of oscillations of the support for a given degree of hardening of the egg contents.

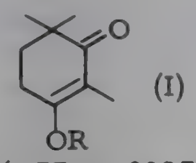
Indirect measurement of the viscosity of the egg contents is used to automatically control the termination of cooking. 24.1.77 as 761816 (6pp1044)

HOFF D13 97408X/52 =US 4157-345

Carotenoid inters. prepn. from 3-alkoxy cycloalk 2-enones - by Grignard reaction with alkenyne derivs.

HOFFMANN-LA ROCHE INC 09.06.75-US-585224 (15.09.76-US-723411)
*B05 E24 (05.06.79) *NL7606-160 C07c-49/48*

New 2, 6, 6-trimethyl-3-alkoxy-cyclohex-2-en-1-ones are of formula (I) (where R is 3-8C alkyl, pref. isobutyl).



(I)

Canthaxanthin, a known food colouring agent, can be prepd. from either a 3-pentol of formula CH C-C(CH_3)(OH)-CH=CH_2 or a 1-pentol of formula CH≡C-C(CH_3)=CH-CH_2-OH via condensation with a cpd. of formula (I). 2.6.77 as 802752 Div. ex. 4045476, 4000198 (+15.9.76-US-723411) (10pp990)

LIFE- ★ D13 47084B/25 ★US 4157-401

Chewing gum contg. limonene deriv. - retaining softness in storage and having long flavour duration

LIFE SAVERS INC 24.04.78-US-899122
A97 E15 (05.06.79) A23g-03/30

Chewing gum comprises gum base, sweetener, 0.3-2.0 wt.% flavours, and 0.1-1.5 wt.% of a limonene deriv., which inhibits migration of flavour from the gum base.

The limonene deriv. pref. comprises limonene polymers derived from ethereal oils e.g. oil of lemon, dill, caraway etc., or terpene resin composed of polymers of alpha pinene, beta pinene and dipentene, pref. in conjunction with animal or vegetable oils e.g. coconut, sesame, corn oils, etc. 24.4.78 as 899122 (4pp955)

LOTT D13 42693B/23 =US 4157-402

Chewing gum compsn. contg. liq. centre - prepd. by adding emulsifier and pref. solvent to aromatised liq. filling

LOTTE KK 22.11.77-JA-140418
*(05.06.79) *DT2850-989 A23g-03/30*

Chewing gum is made from a gum base and a flavoured liq. centre fill. The improvement comprises adding an emulsifier of HLB value 3-15 to the centre fill in an amt. by wt. of 0.01-50 wt.% of the centre fill, and incorporating the centre fill with the emulsifier into the base.

Pref. the emulsifier is sucrose higher fatty acid ester, glycerol higher fatty acid ester, propylene glycol ester and/or sorbitan ester. The flavoured fill is prevented from entering the gum. 6.2.78 as 875205 (4pp964)

ASAH ★ D13 47085B/25 ★US 4157-404

Lecithin prodn. from raw egg yolk - by extn. with di:methyl ether and then dehydration

ASAHI KASEI KOGYO 28.07.78-US-928979
(D21) (05.06.79) A23l-01/28

Lecithin is obtd. from raw egg yolk by extraction with liq. dimethyl ether, the wt. ratio of ether to yolk being $\geqslant$2:1. The yolk proteins are sepd. from the extraction mixt., and the ether is removed, to yield an extract contg. lecithin, neutral lipids and water. This is dehydrated to a water content of $\not>$20%, which causes it to separate into a lipid-rich fraction and a lecithin-rich fraction, from which lecithin is isolated.

High quality lecithin is obtd. in high yield. 28.7.78 as 928979 (8pp955)

ASAE D13 07742A/04 =US 4157-405
Cocoa butter substitute for chocolate mfr. - consists of refined fats from seeds of shorea robusta
ASAHI ELECTROCHEM IND KK 11.03.77-JA-026851 (30.06.76-JA-077202)
*(05.06.79) *NL7707-170 A23d-05/02*

A cocoa butter substitute comprises a refined fat obtd. from Shorea robusta seeds. Fat has a hydroxy value <16, a solid fat index of 48-60 at 30°C., a cooling time at which the max. pt. appears in the cooling curve at 45-120 mins.

Temp. of max. pt. of cooling curve is 17-28°C. Cooling curve is obtd. by cooling 20 g. of refined fat from 40°C. using appts. which is immersed in a water bath maintained at 120°C. Pref. compsn. comprises 80-95 wt.
% of refined sal fat, and 5-20 wt.% refined palm o
iodine value 47-54.

High quality cocoa butter substitute is prepd. f
fats regardless of the differences in extent of cru
hydrolysis. 30.6.77 as 811851 (+10.7.76-US-085
(10pp931)

CADB ★ D13 B/25 ★ZA
Dried food prod. - comprising pieces of dried food and d
of sauce-making mixt.
CADBURY TYPHOO LTD 19.05.77-GB-021075
(10.04.79) A23l-01

Dried food prod comprises pieces of dried food an
coating of a sauce-making mix which is detachabl
ed to the pieces , when the dried food is reconstit
an aq liq, the sauce-making coating becomes deta
the pieces to produce a sauce. 16.5.78 as 002788(

See Also

D12 J5 4060170 D16 DT 2755124 D16 ZA 780
D12 GB 154582 D22 SU 621351 D23 UST 98

D14: FOODSTUFF MACHINERY

BRIT/ ★ D14 B/25 ★BR 7707-427
Forage harvesting machine
BRITTO D R 04.11.77-BR-007427
(05.06.79) A23n-17

SULZ ★ D14 45776B/25 ★DT 2754-463
Continuous irradiation chamber esp. for granular fodder - has coaxially divided compartments each containing rotating and revolving agitator
GEBRUDER SULZER AG 07.12.77-DT-754463
K08 (13.06.79) G21k-05/06

A device for irradiating flowable material, esp. granular fodder, comprises a cylindrical irradiation chamber in which the radiation source is contained in a coaxial, double-walled cylinder within the chamber. The material passes first on one side (e.g. the inside) of this radiation source and then on the other side before leaving the chamber.

In the annular space outside the double-walled radiation source container but inside the wall of the vessel, and also in the space inside the double-walled cylinder, there are agitators, at least one in each of these chambers, with their axes parallel to that of the vessel. Each agitator revolves around the axis of the vessel while simultaneously rotating to stir the material. More specifically, continuously operating conveyors feed and extract the material from the two chambers.

Thorough mixing of all the material is achieved so that it becomes thoroughly irradiated and needs to be cycled only once through the vessel. 7.12.77. as 754463 (18pp236)

HITA ★ D14 45949B/25 ★DT 2852-992
Continuous band filter for food prods. - having caterpillar belt with filter cloth pressed onto drum which has sliding vanes to move cake around
, HITACHI KK 09.12.77-JA-147103
J01 (13.06.79) B01d-33/04

Filter consists of endless fabric belt which is fed around guide rollers. This is supported by a caterpillar type chain. Above it is a rotor with sliding vanes. The belt and the drum are tensioned together by a lever arrangement with cylinder.

Feed slurry enters from the top and is moved into the filter chamber between the drum and the belt by means of the sliding vanes in the drum. As the drum rotates the gap narrows and thus liquid is expelled from the cake. The cake leaves from the other side as belt moves round.

Used esp. for dewatering wheat gluten, pressing out

to the food indstry. Gives improved dewatering, w
separation chamber having circular profile, the ca
of which is adjustable to control the precise degre
dewatering. 7.12.78. as 852992 (16pp1053)

ORTO/ ★ D14 46053B/25 ★GE
Resonator for receiving and detecting Ortonarays - ha
conductor and rotating conductive bar of similar mat
spring loaded electrical contact
ORTON T B 29.11.78-GB-046527 (13.12.77-GB-051902)
B05 J04 K08 R16 (20.06.79) G01n-23

A resonator for detecting Ortonarays has an annul
ductor inside which a conductive bar is centrally r
A spring loaded sliding contact connects the bar a
ular conductor. The angular position of the bar is
able in the presence of a magnetic field. The posi
resonance is indicated by the resistance to continu
tion of the bar.

A compress is pref. included to establish plac
of the instrument. The annular conductor is pref.
has a Ag coating, or a Cu coating.

Food and tablets may be unproved in their Orto
emission characteristics or by a disclosed treatm
This ensures that a balance of elements is maintai
endocrine glands which the applicant discloses re
184 elements which he indicates can be detected in
earth. 29.11.78 as 046527 (9pp1376)

BRID D14 62186X/33 =J7
Polyurethane roll for rice hulling - possessing high
resistance and thus longer life
BRIDGESTONE TIRE KK 14.12.74-JA-143036
*A88 P41 (A25) (30.05.79) *J51074-865 +B02b-03/*
18/66

A roll for rice-hulling has at least the surface for
polyurethane elastomer produced by reacting (A) a
polyoxytetramethylene glycols having hydroxy gp.
terminals of (a) mean mw. of 800-2000, and of (b)
molecular weight of 6000-20,000 in a ratio of (a)/
70/30 to 90/10 by wt. with (B) polyisocyanate in th
ratio of isocyanate gp./hydroxy gp. is 1.5-4 mixi
resulting reaction prod. with methylene-bis-o-chl
line in a molar ratio of amino gp./isocyanate gp.
1.1 and heating the mixt. to 20-130°C to harden it
14.12.74 as 143036 B02b-3/04, C08g-18/66 (30.5
BRIDGESTONE TIRE (3pp) (J5 1074865)

★ D14 46883B/25 ★SU -620-767
nd suspension vortex spray dryer - has inclined heat
er inlets and central used heat carrier outlet pipe with
inside chamber along its axis
ELO HEAT MASS 14.02.77-SU-450767
Q76 *(11.07.78) F26b-03/12 F26b-17/10*
ier can be used for drying, e.g. milk, bacterial
sions, chemicals etc.
drier contains a cylindrical chamber with tangen-
at carrier inlets, atomisers placed opposite each
along the chamber axis and used heat carrier outlet
The used heat carrier outlet pipe is connected to
amber central section.
simplify the mfr. the used heat carrier outlet pipe
vided with a cowling at its inlet. The cowling is
ed inside the chamber along its axis. The cowling
nds are directed towards the atomisers. Thus the
dynamics of the air stream is changed. The heat
er supplied to the chamber moves along a spiral
whose radius reduces in the direction towards the
ng.
onyuk, V.K., Kuts, P.S., Kabaldin, G.S. Bul.
.8.78. 14.2.77. as 450767 (2pp110)

= ★ D14 46886B/25 ★SU -620-772
ally sensitive material e.g. casein drier - whose fluidised
er loading pipe is perforated in lower half using semi-
rical baffle with free end reaching chamber axis
BELO HEAT MASS 14.02.77-SU-451889
Q76 (11.07.78) F26b-17/10
rier used in food and dairy ind. is claimed in Parent
t 453545 and it contains a fluidised layer chamber
nloading bunker. The fluidised chamber is connec-
the heat carrier source, cyclone and a removal
The unloading bunker is connected to the chamber
gh a chute provided with a slide valve.
increase the drying quality by ensuring even fluid-
on, the fluidised layer chamber loading pipe is per-
ed on its lower half. The pipe is provided with semi-
drical baffle whose free end reaches the chamber
The chute slide valve is blocked with slides situ-
in the chamber supply and removal pipelines. The
ly pipeline is provided with a built in air cooling pipe.

Zelepuga, A.S., Kats, M.B., Lyuboshits, A.I. Bul.
31/25.8.78. 14.2.77. as 451889 Add to 453545 (3pp110)

SCHI/ D14 20309Y/12 =US 4157-065
Continuous fluid extractor - has perforated endless belt forming convergent gap with revolving drum rim
SCHINKO K 16.09.75-AU-003180
*+P71 (05.06.79) *DT2625-557 B30b-09/20 B30b-09/24 +B30b-15/30*

A juice extractor appts. includes a liquid impervious conveyor belt which has an upper run leading to a circumferential juice extractor run and a lower run, juice collection and pulp collection containers below the circumferential and lower runs respectively. As the conveyor traverses the circumferential run, the conveyor folds over itself to compress the produce on the belt. A drum is located inside the circumferential run and rollers are spaced from the drum to compress the belt and fruit against the drum. The conveyor is unfolded by two guide wheels to guide the edges of the belt on divergent paths.

Juice can be continuously extracted from fruit. 19.5.76 as 687862 (10pp1376)

NORM/ ★ D14 47128B/25 ★ZA 7706-795
Appts. for sorting articles by size - includes auger-like member defining article sorting apertures, and backing
NORMINGTON S M 15.11.77-ZA-006795
P28 (08.02.79) A23n-07/08 A47j-17

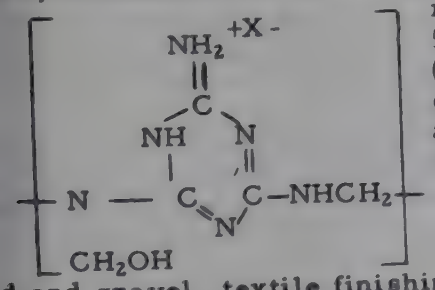
WILL- ★ D14 47135B/25 ★ZA 7801-864
Stone fruit cutter - includes a pair of vertical belts guiding the fruit to vertical disc cutters
J A & A M WILLIAMS 31.03.78-ZA-001864
P28 (14.02.79) A47j-23

See Also

D22 J5 4056980

D15 : WATER TREATMENT

D15 49760W/30 =DS 2501-262
ent treatment with melamine resin - removes certain dissolved
rials as well as pptg. suspns./emulsions
IPPON CARBIDE KOGY KK 14.01.74-JA-006659
97 *(13.06.79) *DT2501-262 C02c-05/02*
te water, in the form of a soln. or suspension, is clar-
by treatment with a watersoluble cationic melamine
resin. The resin contains 5-20 units of formula (I) (where X is an anion derived from an (in)organic acid and no amino gp bearing a methylol gp is cationic).



The treatment may be used on waste water from paper mills, extraction of
d and gravel, textile finishing, dyeing and engineering
ks. 14.1.75 as 501262(6pp068)

AH D15 17221X/10 =DS 2534-458
cessing cyanogen-contg. organic waste water - by wet-oxidation
presence of ammonium and copper ions, residual cyanogen
dn. and copper recovery
ASAHI KASEI KOGYO 18.04.75-JA-046335 (05.08.74-JA-088982)
*E37 J01 (13.06.79) *DT2534-458 C02c-05/04*
ganic waste water, contg. cyanogen or a cpd. forming
anogen on oxidation, is treated by wet oxidation. The wet

higher than the vapour pressure of the treatment temp. and in the presence of Cu or a Cu cpd. and at least one of the following ammonium salts:- sulphate, nitrate, sulphamate, hydrogencarbonate, chloride, iodide, formate, acetate, oxalate, hydrogentartrate. Afterwards the liquid phase is treated with nascent oxygen and the Cu component recycled.

The waste water may be from the prepn. of nitriles. 1.8.75 as 534458(+27.8.74, 11.11.74-JA-098140, 128961) (10pp068)

BENC D15 55139A/31 =DS 2713-827
(N)-Sulpho-alkane-aminoalkane-phosphonic acids - useful as complexing agents, e.g. for hard water
BENCKISER-KNAPSACK 29.03.77-DT-713827
*E11 F09 (13.06.79) *BE-865-443 C07f-09/38*

N-Sulphoalkaneaminoalkane phosphonic acids of formula (I) $R_1R_2C(PO_3H_2)-NR_3R_4$ (where R_1 is H, methyl, ethyl, benzyl CH_2NH or $C_2H_4PO_3H_2$; R_2 is H or PO_3H_2; R_3 is $C_nH_{2n}SO_3H$ or $CH_2PO_3H_2$ and n=1-11. when R_1 and R_2 are H $n \neq 2$ or 3; R_4 is H when $R_3 \neq CH_2PO_3H_2$ or $C_nH_{2n}SO_3H$ where n=1-11) and their alkali salts are new.

Cpds(I) may be prepd by reacting the corresp. amino-phosphonic acid alkali salt with chloro-or hydroxy-alkane sulphonic acid (salt) or cpds yielding such sulphonates and converting to the free acid with a cation exchanger.

Cpds (I) e.g. N-sulpho ethane-aminomethane diphosphonic acid are useful as complex builders. 29.3.77 as 713827(5pp068)

SCHL- ★ D15 45753B/25 ★DT 2753-864

Pressure filter for reverse osmosis etc. - having two flat steel plates clamped together with membrane between, and distributor plate with sloped upper surface

SCHLEICHER & SCHULL 02.12.77-DT-753864
A88 J01 (13.06.79) B01d-13 B01d-31

Pressure filtration unit consists of two flat plates held together by clamps. These serve as a housing for the filter, the membrane being held in the flange. Above the membrane is a distribution plate with an annular gap around the outer edge. Its upper surface inclines upwards from the centre.

Feeds enter above this plate down a hole which is inclined at 45° towards the centre. Below the membrane the lower plate has a support structure for the membrane. Permate leaves from the base plate while concentrate leaves via a hole up the centre.

For use in reverse osmosis , ultrafiltration etc. Gives a filter with mechanically sound, uniform and complete utilisation of the total available membrane surface. 2.12.77. as 753864 (18pp1053)

RAUH- ★ D15 45779B/25 ★DT 2754-488

Purification circuit for swimming pool water - includes active carbon filter improving UV radiator efficiency, reducing chlorine requirement

RAUH D APPARATEBAU 07.12.77-DT-754488
A88 (13.06.79) C02b-01/14

For the purification of the water of a swimming pool fitted with the usual mechanical filters, behind which, in the filtration circuit, there is a UV steriliser followed by a chlorine dispenser, an active carbon filter is also provided, behind the mechanical filter and in front of the UV radiator. The active carbon filter is dimensioned so small, that it allows through in considerable volume, free active chlorine whilst adsorbing all chlor-amines.

To increase by inexpensive means the efficiency of the UV radiation sources very considerably, and to reduce the amount of chlorine required, so that skin irritation and the offensive smell are ruled out. 27.12.77. as 754488 (10pp1045)

SACH- ★ D15 45805B/25 ★DT 2754-659

Appts. purifying water by anodic oxidn. - feeds cell from below ensuring constant, smooth flow speeds

SACHS SYSTEMTECHNIK 08.12.77-DT-754659
(13.06.79) C02b-01/82 C02c-05/12

Water to be purified is delivered from a high level to the bottom of a cell for anodic oxidation, and is made to flow from below upwards between the electrodes. The water is fed down a vertical passage into a heading chamber at the side of the cell, which opens into a diffusion chamber. This in size uniformly from the front to the back of the electrodes, and the feed passage opens into the heading chamber some distance from the wall of the chamber opposite to the diffusion chamber.

Used to elaborate a proposal to feed the water for anodic oxidn. from below and to extract it from above the electrodes, so that the water moves with constant speed during the electrolytic treatment. At the same time, a compact and cheap design prevents disturbance of the process, e.g. by gas bubbles. 8.12.77. as 754659 (13pp 1045)

KRAU ★ D15 45808B/25 ★DT 2754-667

Control mechanism for gutter grid cleaning fork - permits deviation on contact with obstruction wedged in grid

KRAUS-MAFFEI AG 08.12.77-DT-754667 (00.00.76-DT-637805)
Q42 (13.06.79) C02c-01/22 E02b-05/08 E03f-05/14

The fork of the rake assembly for cleaning floating obstructions from the grids of drain gulleys has greater security cf. that of DT 2637805. In the event of a large object becoming wedged, there is no longer dependence upon the overload switch of the motor to prevent damage. When it meets great resistance, the rake fork can yield inwards and downwards. In addition to the normal motion, it is moved upwards and downwards and without great resistance can switch upwards. The arm supporting the fork can be pushed inwards and a shock-absorber prevents the abrupt return to starting point. 8.12.77. as 754
Add to 2637805 (6pp1045)

CASS- ★ D15 45853B/25 ★DT

Mud removal from waters - by suction and filling in
container together with polymeric flocculant, e.g. polyacr
polyethylene oxide etc.

CASSELLA AG 10.12.77-DT-755125
*A97 (13.06.79) B01d-21/**

Mud is removed from waters by (i) upward suction
filling the absorbed mud-water suspension together
a flocculant into a floating container; (ii) interruptin
filling as soon as the container is full; and (iii) rem
the supernatant water layer after settling of the mu
Filling is repeated with flocculant addn., settling a
supernatant water layer removal, until the contai
is filled with mud,

The flocculant may be anionic, nonionic or catio
and is esp. polyacrylamide, polyethylene oxide, pol
ethylene imine, a polymer of dimethylaminoethyl m
acrylate and/or dimethylaminoethyl acrylate which
copolymerisedwith acrylamide, or a polyamine.
10.12.77. as 755125 (19pp200)

FARH ★ D15 45881B/25 ★DT

Waste water purification - by directly passing filtrate from c
fabric and alluvial layer filter to biological filter

HOECHST AG 12.12.77-DT-755286 (00.00.76-DT-621698)
(13.06.79) C02c-01/18

In the Parent Patent, waste water purificn. and low
of biological oxygen demand for waste water purific
are achieved by treating the waste water with floccu
auxiliaries, pref. precipitants combined with polya
and/or polyacrylamide, and combining pre-clarifyi
the sepn. of most of dispersed colloids. The solids
treated waste water is passed under gravity through
support fabric in a mount, whereby (A) a combina
filter is formed of (a) fabric and (b) a prim. filter l
of sepd. solids, and, (B),more waste water is purif
from most of solid particles on passing through com
tion filter. The filtrate obtd. is then purified biolog

The filtrate leaving the filter wall is passed direc
over a large-surface biological filter unit, in which
ogical treatment takes place.

The filtrate is enriched in O_2, e.g. from 1.5-2- t
mg/l. O_2-enrichment and fine O_2-distribution in filt
are made use of for biological treatment of filtrate.
Energy consumption and operational costs are reduc
12.12.77. as 755286 Add to 2621698 (7pp200)

UNVO ★ D15 45910B/25 ★DT 2

Gas separation membrane with semipermeable thin film -
directly to porous support, useful in numerous in
applications, e.g. oxygen enrichment

UOP INC 25.11.77-US-855096
A88 E36 J01 (13.06.79) B01d-13/04

Membrane for gas sepn. consists of a thin film of se
permeable material (I), applied directly to a porous
support (II). The (I) film pref. is 250-10,000 Å thick
consists of a silicone material, esp. dimethylsilicon
silicone-carbonate copolymer, or polystyrene, poly
bonate or cellulose acetate. (II) pref. consists of a c
lose nitrate/cellulose acetate membrane (IIA) or a p
sulphone, esp. a polyarylsulphone.

The membrane is useful in numerous industrial a
tions. Examples are: O_2 enrichment in air, which ca
used to improve the efficiency of combustion proces
and save energy sources, in submarines, other sub
stations, heart-lung machines, aerospace rescue sy
etc. and to improve sewage treatment; N_2 enrichmen
air for use as inert gas or inert atmos. for fuel sys
for aerospace applications; He recovery from natura
H_2 enrichment in industrial processes; gas washing
acid gases; and sepn. of CH_4 from CO_2 in waste gase
sewage treatment plants. 24.11.78. as 850998 (21pp

D15 45912B/25 ★DT 2851-399
a concrete conduit carrying sea water - comprises keyed-
ate with inner pesticide impregnated layer
RICH B F CO 12.12.77-US-860004
67 (13.06.79) B08b-17 C02b-03/06 F16l-58/10

ing for the inside wall of a concrete conduit, which
against corrosion and repels living organisms,
s of a flexible, corrosion-proof layer provided
choring ribs which engage with the structure of the
e. A second flexible layer making contact with the
n the conduit, and bonded to the first layer, contains
ly soluble component which is poisonous for the
ms which settle on the surfaces and try to grow on

d for application where conduits come into contact
a water, e.g. for cooling water in power stations,
nsuring that for a period estimated at up to thirty
the conduit will be proof against blockage by algae,
cs, etc. 24.11.78. as 851399 (15pp1045)

D15 45952B/25 ★DT 2853-035
ing heat energy exploitation in sewage treatment plant - by
g internal consumption of methane and utilising surplus
IOTERM SYST 12.12.77-SW-014056
(13.06.79) C02c-01/14 F24j-03/04

is subjected to a fermentation process in which the
nerated is used as fuel for raising the temp. of the
, and for external heating purposes, so that the
ncy of the exploitation of the heat energy of a sew-
eatment plant is raised to the max.
gas generated is used for driving the combustion
of a heat pump. The vaporising side of this is in
xchanging relationship with the sewage, to recover
nergy from it. The condensation side of the pump
heat to the sludge for maintaining it at an optimal
and also to a first heat-consuming arrangement.
over, the heat in the cooling water and in the exhaust
of the engine are used in a second heat consuming
gement, whilst the remainder of the sludge fermenta-
as is used in a third head consuming arrangement.
e consumption of methane by the sewage plant itself
produces it is reduced. The unused gas can then be
ed elsewhere, where a higher temp. level is required.
as produced is used in the best and most efficient
er, so that the necessary heat is transmitted to the
ying plant without a wasteful secondary circuit, and
same time, the excess is used elsewhere as heat
gy. 8.12.78. as 853035 (19pp1045)

See page 22 FR 2403-302/303/305

D15 02366Y/02 =GB 1547-454
oaming polysiloxane compsn. - prepd. by dispersing the
iloxane, milling and adding thickened water
ENERAL ELECTRIC CO 20.06.75-US-588771
*26 F09 H01 (A97 D16 D17) (20.06.79) *DT2626-994 C08l-*
/04

foam compsn. is prepd. by (i) dissolving an emulsify-
gent in water; (ii) separately, dissolving a thickening
t in water; (iii) uniformly dispersing a diorganopoly-
xane antifoam agent in mixt. from (i); (iv) milling the
ersion until homogeneous and incapable of sepg. into
layers; and (v) mixing the milled dispersion with thick
ed water produced in step (ii). The dispersion may
be further diluted with water. A bactericide, e.g.
oic acid, may be added to the prod. from step (v).
Emulsifier is pref. a mixt. of sorbitan monostearate
polyoxyethylene stearate. Thickening agent is pref.
C. Antifoam agent pref. consists of a dimethylpoly-
xane fluid and a silica filler.
Compsns. defoam at low concns. (10-1000 ppm) and may
useful e.g. polymerisation, fermentation, sugar re-
ry, paper mfr., sewage disposal, oil drilling and refin
g, and in treating lubricants etc. 9.6.76 as 023833
963)

J D15 83238Y/47 =GB 1547-534
rinated cation exchange resins - with reduced permeability to
roxyl ions and increased current efficiency
OYO SODA KK 27.04.76-JA-047233

The hydroxyl ion permeability of a homogeneous cation-exchange membrane contg. $\geqslant$ 1 fluorinated polymer having cation-exchangeable gps. is decreased, by swelling the membrane with a water miscible organic solvent, the removing it from the swollen membrane.

Pref. $\geqslant$ the residue of the organic solvent is removed from the swollen membrane by evapn. pref. by holding the membrane between 2 plates and heating the solvent. Pref. solvent is (m)ethanol, propanol or butanol, lower alkyl acetate, THF or $CHCl_3$.

The current efficiency in the electrodialysis of an electrolyte is improved, by using the membrane to reduce hydroxyl ion permeability whilst not adversely affecting other membrane characteristics. 27.4.77 as 017644 (17pp931)

ZWIA- D15 97410X/52 =GB 1547-587
Basin for activated sludge treatment - of aq. effluent with longitudinal partitions to eliminate dead spots
ZWIAZKU SPOLDZ MLECZARSK 13.05.76-PO-189527 (09.05.75-PO-181071)
*(20.06.79) *NL7606-196 C02c-01/10 +B01f-05/10*

Sewage treatment appts. includes a treatment chamber divided into adjacent ditches by partitions having spaces defining channels in the chamber. Surface aerators are mounted in the channels and aerating brushes or mammoth aerators in each of the ditches.

The aerating devices give the surface a common direction of rotation and provide optimum hydraulic conditions and turbulence. 9.6.76 as 023776 (4pp1379)

SUMO ★ D15 46068B/25 ★J5 4056-893
Determn. of nitrogen and/or carbon content of waste water - using gas chromatograph to analyse sample of the water which has been treated with oxidn. catalyst etc.
SUMITOMO CHEMICAL KK 15.10.77-JA-123952
J04 R16 (08.05.79) G01n-33/18

Inert gas flow which does not contain N_2 and CO_2 is passed through (a) a reactor which is heated at 700-1200°C and is packed with a decomposition and oxidn. catalyst, (b) dehydrating tube and (c) a reactor which is heated at 300-700°C and is packed with an oxidising agent and/or reducing agent, in this order. Specimen to be analysed is poured into (a); and the gas-like product from (c) is made free of moisture and sent to a gas-chromatograph equipped with a thermo-conductive type detector; and the N_2 and/or CO_2 are determined.

Pref. the inert gas is helium; the decompsn. and oxidn. catalyst is platinum or palladium; the reducing agent is reduced copper or reduced nickel, the oxidising agent is copper oxide or cobalt oxide. Specimen is poured on the decompsn. and oxidation catalyst. The method is applied to e.g. waste water. 15.10.77 as 123952 (7pp90)

TOKE ★ D15 46100B/25 ★J5 4056-952
Cooling water for use in petroleum purificn. plant - treated with ozone to regenerate hexavalent chromium anticorrosive agent and destroy slime
TOKYO SHIBAURA ELEC LTD 15.10.77-JA-122971
E36 H05 M14 (08.05.79) A01n-11 C02b-05 C23f-11/18 C23g-01/26

In a process for regenerating recycled cooling water the contg. chromate salt as an anticorrosive agent, the water is passed through various heat regenerators kept at high temps. to produce water having a high temp. and contg. trivalent chromium ions and chromium hydroxide ion. The resulting heated water is ozonised by adjusting simultaneously its pH and thereby, hexavalent chromium ion having the anticorrosive effect is regenerated in it. At the same time slime is stripped from internal wall of the pipings of the heat regenerator.

The ozone or ozonised water can be easily produced by silent electrical discharge with an ozone generator. The slime on the internal surface of the pipings generated by microorganisms is easily removed with the ozonised water. The cooling water system is used in a petroleum purificn. plant. 15.10.77 as 122971 (5pp15)

TAMU/ ★ D15 46110B/25 ★J5 4056-979

Fresh water prodn. by evapn. of sea water, using tube heat exchanger - comprises vaporising water and passing vapour to condenser units where it is liquefied, where heat exchanger medium is hot pressurised liq.

TAMURA S 17.10.77-JA-123431
(08.05.79) B01d-01 C02b-01/06

Prodn. comprises heating and evaporating the sea water by heat exchange with a pressurised hot liq. medium, using a tube heat exchanger. The water vapour is moved from the heat exchanger to condenser units where it is cooled to a liq. by heat exchange with a gaseous medium, which is obtd. by vaporisation of the liq. medium after the first heat exchanging stage.

Pref. the heating medium liquefies when it is introduced into a compressor after the heat exchange with the water vapour in the condenser units.

More efficient heat exchange is achieved, using more compact equipment. 17.10.77 as 123431 (4pp47)

OSHI- ★ D15 46133B/25 ★J5 4057-304

Base material for asphalt concrete pavement - obtd. from waste material by treating with blast furnace slag and calcium chloride

OSHIO SANGYO KK 17.10.77-JA-123493
L02 Q42 (09.05.79) E02d-03/14

Agent for use in treating soil remaining in sewage works and other construction works, etc. so as to be used as a base material by rolling in asphalt concrete pavement, comprises 100 pts. wt. blast furnaceslag, esp. B-type blast furnace slag, 3-7, pref. 5 pts. wt., $CaCl_2$, and if necessary 0.2-0.5, pref. 0.3 pts. wt., Na ligninsulphonate. If necessary, a neutralising agent and a surfactant may be further added.

It is essential to cure the soil for $\geqslant$ 1 day, pref. 1-2 days under ordinary temp. after it is mixed thoroughly with the treating agent so as to be made non-viscous, thereby its rolling becomes easy and water content is decreased after rolling. By this process, the soil is improved costwise in road bed-supporting strength, water-permeability, etc. 17.10.77 as 123493 (4pp34)

NITL ★ D15 46180B/25 ★J5 4057-475

Selectively permeable membrane prodn. - involves impregnating cloth with solvent before applying film forming liq. and coagulating

NITTO ELECTRIC IND KK 17.10.77-JA-124771
A88 J01 (09.05.79) B01d-13/04 B29d-07

A selectively permeable membrane is made by impregnating porous reinforcing matter (e.g. textile or nonwoven cloth of polyolefin, polyester, etc.) with a solvent which does not coagulate the high polymer substance even in contact with a film-forming liq. contg. film-forming high polymer substance (e.g. cellulose acetate, polyacrylonitrile, etc.), applying the film-forming liq. to the porous reinforcing matter; and immersing it in a coagulating bath to coagulate the film-forming substance.

The resulting membrane has excellent physical strength, high selectivity and large water permeation, and is widely useful for the sepn. of microorganisms, protein, etc., prepn. of fresh water from sea water, waste water treatment, etc. The solvent used for impregnation may be the same as or different to solvent used for the film-forming liq., e.g. acetone, DMSO, etc. for cellulose acetate. 17.10.77 as 124771 (5pp50)

MITR ★ D15 46185B/25 ★J5 4057-481

Granular oil-contg. waste water treatment material prodn. - by granulating attapulgus clay and alumina sol binder and heat treating

MITSUBISHI RAYON KK 18.10.77-JA-124695
J01 (09.05.79) B01d-15 C02c-05/02

The method comprises granulating a mixt. consisting of 90-50 wt.% of attapulgus clay as inorganic cpd. having adsorptive activity and 10-50 wt.% (as alumina) of alumina sol as binder, and heat-treating the granules at 70-150°C.

The granular material exhibits high strength and excellent workability, and is highly effective for cleaning oily water, city sewage, industrial waste water, etc. contg. various oily components and solid matter. Even emulsified oil can be treated directly with the treating material without pretreatment for destroying emulsion. 18.10.77 as 124695 (3pp50)

MITR ★ D15 46186B/25 ★J

Granular material for treating waste water contg. oil - is
heat treating granulated mixt. of attapulgus clay and alum

MITSUBISHI RAYON KK 18.10.77-JA-124696
J01 (09.05.79) B01d-15 C02c-05/02

Material is prepd. by (a) granulating a mixt. com
90-50 wt.% attapulgus clay as inorganic cpd. havi
sorptive activity and 10-50 wt.% (as alumina) alur
as binder; and (b) heat-treating at 70-250°C.

Prod. has high strength and workability, and i
ive for cleaning oily water, city sewage, industria
water, etc. contg. various oily mixts. and solid n
18.10.77 as 124696 (3pp50)

TOKE ★ D15 46222B/25 ★J5

Treating hexavalent chromium-contg. paint sludge to
harmless - by suspending the sludge, opt. in a porous ves
acidic soln. and heating

TOKYO SHIBAURA ELEC LTD 15.10.77-JA-122972
E31 J01 (09.05.79) B01j-01 C09d-07

The process comprises suspending paint sludge in
soln., or dipping a porous vessel contg. the paint
an acidic soln., and heat treating the system to re
hexavalent chromium to a harmless form. Pref.
ic soln. contains an organic substance which is ea
oxidised; and the deteriorated acidic treatment liq.
heat treated paint sludge or neutralised and then fl
ed and pptd.

The solvent in the paint sludge is used as reduci
so that hexavalent chromium is completely reduce
valent chromium in an aq. acidic soln. of pH $<$ 4,
2, which is heated to $>$ 80°C to accelerate reducti
60 mins. No special equipment or complex operati
required. 15.10.77 as 122972 (2pp57)

TEIJ ★ D15 46283B/25 ★J5

Bromide removal from waste photographic developer soln
ion exchange membrane electrodialytic cell

TEIJIN KK 17.10.77-JA-123605
E36 G06 J03 R23 (10.05.79) G03c-05

Method of removing bromide from waste developing
uses an ion exchange membrane electrodialytic cel
is constructed by cathode chamber, anode chamber
centrating rooms and desalting rooms, which are f
by partitioning off between cathode and anode with a
nate arrangement of anion and cation exchange men
Waste developing soln. is applied to the desalting r
and water is applied to circulating system connecti
concentrating rooms and then, direct electric curr
applied between the cathode and the anode chamber
17.10.77 as 123605 (7pp151)

KOBA- ★ D15 46348B/25 ★J5

Electrode assembly for use in brine electrolysis - made fro
wire e.g. platinum, with leads, e.g. of copper, sealed in
plastic tube

KOBAYASHI DENCHI KE 20.10.77-JA-126021
E34 J03 (11.05.79) C25b-11/02

Electrode made from metal wires e.g. of Pt are us
an electrolysis cell comprising a semipermeable m
brane, the electrodes attached to opposite surfaces
membrane by securing members, and lead-wires c
ed to the metal wires and each surrounded by each
cal-resisting protection tube.

NaClO aq. soln. used in water or waste water t
plants may be prepd. using simple electrodes made
cheap metal wires.

Specifically, Pt wires are connected to a lead wi
Cu which is surrounded by a glass or plastic sealin
and are placed on opposite surfaces of plastic mem
by plastic threads or fixtures. This electrode asse
is set in an electrolytic bath having a NaCl soln. in
NaOH soln. outlet, a Cl_2 gas outlet and a H_2 gas out
Then NaClO aq. soln. is prepd. by a reaction of Cl_2
NaOH. 20.10.77 as 126021 (4pp46)

D15 46349B/25 ★J5 4058-686
ation of semipermeable membrane - used e.g. in waste
atment, by washing with aq. soln. of PH 2-6 adjusted using
hydroxide
TOMO ELEC IND KK 18.10.77-JA-125443
(11.05.79) B01d-13 B01d-31
thod comprises adding ammonium hydroxide, sod-
lroxide and/or potassium hydroxide to an aq. soln.
a neutral system washing agent and citric acid,
adjusting pH of the aq. soln. to 2-6 to obtain a
g soln., and washing the used semipermeable mem-
vith the washing soln.
n example, waste water contg. 2% of oil was passed
a tube type acetic cellulose system semipermeab-
nbrane at 25°C under 3 kg/cm^2 at 120 l/min. to re-
oil from the water. The used membrane was wash-
a washing soln. contg. 0.4% of a neutral system
g agent and 0.02% of citric acid for 30 mins. once a
wherein the washing soln. was adjusted with amm-
hydroxide to pH 4. As a result, the membrane was
erated. 18.10.77 as 125443 (3pp51)

★ D15 46366B/25 ★J5 4058-705
g waste tar oil contg. water - by adding petroleum type oil,
gally sepg. sludge and then sepg. oil and water
PON STEEL CHEM KK 18.10.77-JA-124101
(11.05.79) C10g-21/14 C10g 33/04
ic oil contg. < 20% of aromatics and/or alcohol are
to emulsive waste tar oil originated from coal tar
oil, water and sludge, and the sludge is removed
fugally, then oil and water are sepd. on standing.
ter, oil and sludge in emulsive waste coal tar are
efficiently by the addn. of special solvent. Sepd. oil
ble as a fuel oil, and sepd. water can be purified by
ted sludge method.
ste emulsion exhausted from coal tar factory usually
ns 10-40 wt.% of oil (i.e., benzene series, naphthal-
eries and anthracene series), 1-5 wt.% of sludge (i.
organic cpds. contg. mainly Fe, aromatic condensed
, powder of coal and coke) and the rest water, and
o self-combustibility. Its separability is heightened
e addition of $\geqslant$ 0.2 vol.% of aforesaid solvent (e.g.
ene, light oil, A-grade heavy oil, butanol, cyclohex-
. The mixt. of the emulsion and the solvent is heated
-80°C, and centrifuged with > 1000 G (pref. >2000G).
), 77 as 124101 (4pp170)

★ D15 46430B/25 ★J5 4058-948
lourisation of night soil-treated water - by contacting with
inating or brominating agent, in presence of supported metal
xide
SAHI GLASS KK 18.10.77-JA-124080
(12.05.79) C22c-05/04
ured night soil-treated water resulting from aerating
soil water with microorganisms to remove COD and
components, is easily and effectively decolourised at
cost by contacting it with effective amt. of chlorine
or bromine, e.g. hypochlorite and/or hypobromite etc.
e presence of a metal peroxide, e.g. of Ni, Co, Cu
In, carried on a porous carrier, e.g. calcined attap-
e, diatomaceous earth, gamma-alumina, alpha-alum-
silica-alumina, zeolite, activated charcoal, silicon
ide etc.
n an example, 2 kgs. of a carrier obtd. by calcining
pulgite having granular size 0.2-0.5 mm in air at 600°
or 2 hrs. is impregnated with 2 mol/l-$NiSO_4$ aq. soln.,
r which the carrier is immersed in 15 l of 4% aq.
)H soln. for 3 hrs., followed by hydrolysis of $NiSO_4$ to
osit Ni hydroxide on the carrier. Thereafter, it is
nersed in 10 l of 12% aq. NaClO soln. for 3 hrs. to
vert Ni hydroxide into Ni peroxide, followed by water
hing to give a treating agent which exhibits excellent
olourising effect. 18.10.77 as 124080 (6pp34)

KK- ★ D15 46431B/25 ★J5 4058-949
ating waste water derived in recovering sugar from beet - by
phen's process, to reduce BOD and COD, involves adjusting pH,
culating with bacteria and activated sludge treatment
HOKKAIDO TOGYO KK 19.10.77-JA-124622
(D17) (12.05.79) C02c-01/14

The waste water is subjected to economical treatment to remove BOD- and COD-components.

Method comprises adjusting the pH to 7.0-8.5 with a mineral acid, e.g. H_2SO_4 etc.; inoculating with anaerobic bacteria, e.g. belonging to Clostrridium, Proteus, Pseudomonas, Bacillus, Streptococcus, Escherichia etc. followed by assimulation under anaerobic state for $\geqslant$3 days; the waste water to the fermented bacteria-assimulated liquor followed by retention for short period under an anaerobic state having oxidn.-reduction potential of -150 mV to -300 mV and temp. of 15 to 60°C, e.g. by electric or steam heating, or water amt. adjustment or ventilation etc. and treating the water thus treated e.g. by activated sludge process. 19.10.77 as 124622 (5pp34)

MITP ★ D15 46432B/25 ★J5 4058-950
Electrolytic removal of harmful metals from effluent - by forming iron(ii) floc incorporating the metals e.g. chromium ions, then heating to form magnetic iron cpd.
MITSUBISHI PETROCH KK (MITS-) 19.10.77-JA-124624
J01 (12.05.79) C02c-05/02

In the electrolytic removed of harmful metal components, e.g. Cr^{6+}, Ni^{2+}, Cu^{2+} and Zn^{2+} etc. from effluents by forming iron flocs and heating to form magnetic iron cpds., the improvement comprises forming ferrous-contg. iron flocs while maintaining condition such that matters having bad influence on the removal of the heavy metal components do not exist so that the harmful metal components are enclosed very stably by the magnetic iron cpd., e.g. ferrite etc. even in co-presence of inhibiting matters, e.g. PO_4^{-3} and Si components etc.

It is necessary to prevent the oxidn. of the ferrous iron in the iron flocs with air, otherwise the ferrite compsn. is damaged and the redissolution of the harmful metal components from a sludge may occur. The formation of the iron flocs may be also carried-out by reacting a ferrous salt, e.g. $FeSO_4$ etc. with alkali. 19.10.77 as 124624 (6pp34)

ASAH- ★ D15 46433B/25 ★J5 4058-951
Biological purificn. of starch- and/or sugar contg. waste water - by inoculating with fungi e.g. Mucor javanicus, aerating, cultivating then sepg. fungi from water
ASAHI CARBON KK (ODAM-) 19.10.77-JA-125291
(D17) (12.05.79) A23k-01 C02c-01/02 C12k-01

The waste water, e.g. discharged from brewing, starch, rice confectionery and cake-producing factory or food-processing factory etc. is purified biologically by inoculating with fungi selected from Mucor Javanicus, Rhizopus delemar and Aspergillus asumi mut. shiro-usamii, followed by aeration and culturing to decrease the content of the polluting matters, e.g. sugars and starch etc., and subsequently sepg. the fungi from the waste water.

The fungi does not produce harmful materials and exhibits excellent fixation property in the waste water and pollutants-dissolution degradation property, further exhibiting excellent suspended solids-removability and COD-removability. The amt. of the fungi inoculated is ca 500-1000 ppm against the waste water having the suspended solids and COD content of ca 2,000-3,000 ppm, and the pollutants are decreased until the min. value is obtd. within 40-70 hrs.

The process is suitable for the purificn. of the waste water having large variation in BOD and COD load. 19.10.77 as 125291 (10pp34)

MITR ★ D15 46434B/25 ★J5 4058-952
Coagulation of oil-contg. waste water - by kneading an inorganic cpd., a binder and an hydrophilic organic cpd., granulating, drying and passing the waste through the granules
MITSUBISHI RAYON KK 20.10.77-JA-125943
A81 J01 (12.05.79) C02c-05/02

An oil-contg. waste water is subjected to an oil-sepg. treatment by thoroughly kneading together an inorganic cpd., e.g. attapulgas clay, Mg aluminate, a mixt. of Mg aluminate and silica, iron oxide, iron hydroxide, iron oxyhydroxide, MgO and $Mg(OH)_2$, etc. a binder e.g. alumina sol, alumina gel, silica gel, cements, magnesia cement, water glass, coal tar, pitch, PVAc, EVA copolymer, acylic ester polymer and emulsion or latex of synthetic resin, e.g. styrene-butadiene copolymer etc., and a hydrophilic organic cpd., e.g. finely powdered cellulose etc. and granulating the mixt, e.g. by meansof a screw-type extruder.

Process further comprises drying or heating at 200°C under a gas stream to improve strength; charging the granules obtd. into a treating vessel, and subsequently passing forcedly the oil-contg. waste water through a layer of the granules, so that fine oil droplets ($< 10 \mu$) are coagulated together and rised to the surface of the water within short period without rise in pressure loss due to blinding of the granules layer. 20.10.77 as 125943 (5pp34)

MITB ★ D15 46435B/25 ★J5 4058-973

Incineration of chromium-contg. sludge in fluidised incinerator - where ash collected in dust collector is introduced into reducing furnace to convert hexavalent chromium to trivalent chromium

MITSUI SHIPBUILDING ENGG 18.10.77-JA-124930

J09 Q73 (12.05.79) C02c-03 F23g-05 F23g-07

In incineration of a Cr-contg. sludge in a fluidised incinerator, the improvement comprises (i) supplying initial air to a bed part of the incinerator in an amt. of less than the theoretical air amt. necessary for the combustion of the sludge or for the combustion of the sludge and a supplementary fuel in the case that the supplementary fuel is used, to carry out partial combustion at the bed part; (ii) supplying secondary air to a free board part in an amt. of combusting completely a partially combusted gas rising from the bed part; (iii) taking-off a portion of the partially combusted gas from the incinerator under high temp. state to send it to a reducing furnace; (iv) introducing a Cr_6^+-contg. incinerated ash collected in a dust collector from the combusted gas discharged from the incinerator into the reducing furnace to reduce Cr_6^+ contained in the ash to Cr^{3+}; and (v) recirculating the partially combusted gas to the free board part so as to be completely combusted. 18.10.77 as 124930 (4pp34)

RACK- ★ D15 46556B/25 ★J5 4060-168

Organic fertiliser prodn. from human waste - by mixing with synthetic wollastonite and sulphuric acid, and drying the jelly

RACK ENG KK 18.10.77-JA-124014

C04 (D16) (15.05.79) C05f-03

The human waste is mixed with 0.1-40 pts. wt. (based on 100 pts. wt. waste) synthetic wollastonite, and 0.9-50 pts. wt.% sulphuric acid (98%) such that conc. sulphuric acid is dropped onto human wastes to release NH_3 and CO_2 gas with stirring and synthetic sollastonite is gradually added to the mixt. while stirring, the mixt. is allowed to stand for 5-20 mins. more stirring until the whole of the wastes is solidified into a jelly and the solidified wastes is dried by heating or under sunlight.

The method greatly shortens the time for solidification and water vaporisation of 1/2 to 1/5 days, resulting in finely divided, odourless solid. The solidification and water vaporisation is accelerated by the addn. of an inorganic salt, e.g. borax, etc., and an alkaline metals peroxide, e.g. sodium peroxide. 18.10.77 as 124014 (2pp)

RACK- ★ D13 46557B/25 ★J5 4060-169

Treatment of waste water for use as fertiliser or feed - by mixing waste with cement and sulphuric acid, adding cement, standing mixt. and drying

RACK ENG KK, 18.10.77-JA-124013

C03 L02 (C04 D15 D16 D22) (15.05.79) A23k-01 C02c-01/40 C05f-03 C05f-07

Treatment for composting of waste water using cement materials, for recycling as a fertiliser or feed and also deodorisation of waste waters, comprises mixing 100 wt. % waste water, e.g. industrial effluents, livestock effluents and wastes, etc. 0.1-100 pts. wt. of a cement material, e.g. Portland cement, mixed cement, etc., and and 0.1-100 pts. wt. of sulphuric acid (98%), pref. in a manner in which concn. H_2SO_4 is gradually dropped onto waste water until pH $\leqslant$ 4 to release gases present in waste water, adding cement material after sufficient stirring, to the waste water while stirring, standing the waste water mixed with cement material, after a 5-20 min. more stirring, until the whole of waste water is solidified into a jelly state and drying the solidified waste water by heating or under the sunlight to powder.

The treatment shortens the time of water vapo
and drying of waste water to 1/2 to 1/3 days c.f.
ed waste water, and at the same time eliminates
sive odour peculiar to waste waters. The solidifi
stance obtd. is applied as a fertiliser and feed, pa
blood treatment, fishery, amino acid industry, st
dustry, milk industry and livestock industry. 18.
as 124013 (2pp117)

SHOW ★ D15 46576B/25 ★J5

Processing waste from electrolytic aluminium treatm
concentrating, sepg. aluminium sulphate for treat
aluminium hydroxide sludge, and recycling acidic liq.

SHOWA DENKO KK (KIME) 22.10.77-JA-127027

M11 (15.05.79) C01f-07/74 C02c-05/02 C25d-21/16

Treatment of a waste acid resulting from electroly
oxidn. of aluminium plate or shaping in an aq. sol
sulphuric acid, is described. The aluminium sulp
contg. electrolytic waste acid discharged from the
lytic cell is partly vaporised, condensed and if req
further cooled to ppte the aluminium sulphate. Th
and liquid fractions are sepd. and the latter is rec
to the electrolytic cell. The solid is discharged in
remaining waste acid for reacting with sludge of g
aluminium hydroxide obtd. by neutralisation of the
ine or acidic waste water so that aluminium sulpha
produced.

Effluent of the aluminium electrolytic oxidn. tre
comprises the etching waste liq., electrolytic wast
and alkaline or acidic waste water. The waste aci
phuric acid contg. aluminium sulphate which is re
20.10.77 as 127027 (5pp53)

TOKE ★ D15 46596B/25 ★J5

Adsorbent for alkaline gases - comprises active carbon w
been dipped in sulphuric acid

TOKYO SHIBAURA ELEC LTD 21.10.77-JA-126483

E16 P34 (E35) (15.05.79) A61l-09/ B01d-53/16*

Adsorbent for alkaline gases such as NH_3 comprise
active carbon which has been dipped in H_2SO_4. The
of H_2SO_4 contained in the active carbon is 25-60 (30
%.

Used for removing alkaline gases such as NH_3 tr
yl amine etc. produced e.g. in sewage plants. The
bent has long life and high efficiency. 21.10.77 as
(3pp55)

MITR ★ D15 46597B/25 ★J5 4

Regenerating granular material from oil-contg. waste
treatment - by back-washing the material, e.g. iron oxide,
sol and cellulose powder

MITSUBISHI RAYON KK 21.10.77-JA-126649

J01 (15.05.79) B01d-15/06 C02c-05/02

After the oil-contg. waste water has been treated in
contg. the granular material (comprising inorganic
such as iron oxide, magnesium hydroxide, etc. bin
such as alumina sol., alumina gel, etc. and opt. an
ic cpd., such as cellulose powder, etc) the materia
generated in the tower by back washing.

The material can be regenerated and the oil com
etc. can be easily removed without damaging the tre
ability of the treatment material. The granular mat
not destroyed during the treatment. 21.10.77 as 12
(4pp55)

TATE- ★ D15 46637B/25 ★J7 9

Filter material for treating waste water - consists of Oya sto
bentonite or diatomaceous earth, and can absorb amm
nitrogen

TATEISHI ROKA KOGYO 29.12.75-JA-157646

J01 (28.05.79) B01d-15 B01d-39/06 C02b-01/14

Filter material consists of 10-100 wt. % Oya stone (a
of tuff distributing in Tochigi prefecture in Japan) o
325 mesh, and 90-10 wt. % bentonite or diatomaceous

The filter material has ability to absorb ammonia
nitrogen, and is used in treating industrial and dome
waste water. 29.12.75 as 157646 B01d-39/06, 15/0
-1/14 (28.5.79) TATEISHI ROKA KOGYO KK (2pp83)
(J5 2081764)

D15 17896W/11 =J7 9013-118
ater purification using active carbon and ash - without
l purification stage or addition of conditioning material
ERO & SPACE ADMIN 22.08.73-US-390467
*05.79) *DT2439-603 C02c-05/02*
cipitation of (un)dissolved organic matter in waste
esp. sewage water, is accelerated by the addn. to
te fluid in a first settling tank, from which the coar
bris and sand have been mechanically removed, of
arbon and ash obtd. by pyrolysis of previously
nd skimmed-off organic matter. The sludge from the
ttling tank is dewatered by filtration and the almost
ids are processed in a reactor from which some of
ve carbon and ash mised with fresh water is fed to
in a second settling tank receiving the partially
d water from the first operation. After adsorption of
anic matter in this tank, the sludge is pumped, pos-
llowing filtration into a mixer in front of the first
tank so that its adsorptive capacity is fully utilised.
iological purification stage is necessary. No addi-
conditioning material is required since the active
and ash is obtd. from the processed sewage.
ely small amts. of waste matter need to be dumped
re than one tenth of the original solids. 22. 8. 74 as
(clg. 22. 8. 73-US-390467) C 02c-5/02 (28. 5. 79)
ERO & SPACE ADMIN (8pp) (J5 0054155)

D15 58239Y/33 =J7 9013-226
ogging prevention in radioactive waste water treatment -
ack pressure applied to the downstream side of a valve in
em
CHI KK 26.12.75-JA-154994
*(29.05.79) *J52078-765 C23f-14 G21f-09/08 +B01d-01/30*
are prevented from clogging in a system for treat-
ids that will produce deposn. due to condensation
d by evapn. A back-pressure is applied to the down-
n side of a valve in the system so that pressure in
wnstream side becomes equal to pressure in the
eam side.
thod is for preventing clogging of pipe-lines used in a
n for treating radioactive waste water from atomic
y power plants, resulting in safe operation of the
m.
dioactive waste water is condensed in an evaporator
e resulting condensed waste water is then discharged
eservoirs through an outlet valve, by which condens-
eposits in a pipe between the evaporator and the valve
se of vapour leak through the valve. To prevent this
ge of steam through the valve, back-pressure is app-
o the downstream side of the valve by recycling cond
ed liq. through a recycling line by a pump by a control
which is actuated by a transducer connected to
meters. 26. 12. 75 as 154994 B01d-1/30, C23f-14/00
-9/08 (29. 5. 79) HITACHI KK (3pp46) (J5 2078765)

- D15 88160V/51 =J7 9013-256
nt matl treated with silicate and portland cement - to give
impervious crystal matrix
ROSSFORD POLLUTION 01.06.73-GB-026201
*P35 (29.05.79) *NL7407-415 A62d-03 C04b-13/02 C04b-29*
B01j-01 C02c-05/02
gerous effluents are treated by forming into a slurry
aluminium silicate or an aluminosilicate and Portland
ent in the presence of water to form a slurry, and
wing the mixt. to harden to a stone like material in
h the effluent material is firmly bound into a solid cry-
matrix and is not remoived by extended washing.
Typical effluent materials which can be treated contain
vy metals fluoride, sulphate, phosphate, nitrate, nitrite
nide proteins, carbohydrates, fats, Prussian blue, min-
l oils, tar etc. resulting from various industrial pro-
ses such as metal refining, electroplating, printing,
rochemical processes etc. 1. 6. 74 as 062462 (clg. 1. 6. 73
3-026201) C04b-13/02, A62d-3/00, B01j-1/00, C02c-
2, C04b-29/00 (29. 5. 79) CROSSFORD POLLUTION
RV (6pp) (J5 0033219)

ZAIT/ ★ D15 46847B/25 ★SU -620-522
Reinforcing and waterproofing ground - by treating with lime and brine, used for basin bottom construction for evapn. of brine in cooking salt mfr.
ZAITSEV I D 29.03.77-SU-485505
Q41 (11.08.78) E01c-07/36

The impermeability of soil to water on the bottom of basins for evaporation of brine can be increased and the cost of the treatment reduced if the soil is treated with brine mother liquor prior to reinforcement with lime, using an amt. of brine contg. 11-13 g. ions Mg per kg. of dry soil. The soil is then loosened to a depth of 50-60 mm., and mixed with lime at an excess of calcium oxide of 10-15% over the stoichiometric amt. required to convert the Mg salts to magnesium hydroxide. The magnesia-gypsum mixt. formed coats the soil particles and bonds them together, giving material with a high strength, stable for prolonged periods, with a low filtration capacity ensuring good waterproofing qualities.
Zaitsev, I.D., Vasilenko, L.A., Gladkii, I.N. et al. Bul 31/25.8.78. 29.3.77. as 485505 (2pp815)

KRUN D15 31605U/22 =SU -621-306
Magnetic filter - for removal of iron oxides from boiler feed water
KRAFTWERK UNION AG 22.12.71-DT-163696
*+P41 (07.07.78) *BE-792-843 B01d-35/06*

Electromagnetic filter for the purificn. of boiler feed water in thermal power stations by removal of iron oxides, consists of a cylindrical filter vessel contg. a filtration layer of magnetic steel balls, surrounded by an excitation coil generating a magnetic field well above the saturation field of the steel balls, but modified to provide air gaps between the different windings or groups of these of the coil, which permit the passage of air or other cooling medium. The coil is completely surrounded by an iron or steel envelope to provide inlet and outlet apertures for the cooling medium and to arrest, to a large extent, the magnetic dispersion field of the coil and concentrate it within the envelope.
Heitmann, H.G., Donat, G. Bul. 31/25.8.78. 22.12.72. as 865016 (3pp)

RING/ ★ D15 46973B/25 ★SW 7707-768
Treatment of floating oil slick - by using compressed air to spray absorbent or dispersant against underside of slick
RING LM 05.07.77-SW-007768
H03 (29.01.79) C02b-09/02

DEGS D15 42326A/24 =US 4157-300
Purifying effluents contg. phenol and/or formaldehyde - by oxidation using chlorite(s) in the presence of formaldehyde in given ratios
DEUTSCHE GOLD & SILBER 17.12.76-DT-657192
*A35 E14 J01 (E37) (05.06.79) *DS2657-192 +C02b-01/14*

Waste water contg. phenol is purified with chlorine dioxide by treating water with alkali(ne earth) metal chlorite in the presence of formaldehyde. Wt. ratio of formaldehyde to phenol is 0.5-2:1; molar ratio of thesum of phenol and formaldehyde to chlorite is 1:1.2-2 if an alkali metal chlorite is used, and 1:0.6-1 if an alkaline earth metal chlorite is used.

Pref. the waste water is treated with a decolorising carbon after chlorite treatment. Chlorite is added at such a rate that the ClO_2 formed does not exceed the limit of solubility, nor escape as a gas.

Esp. used in the synthesis of phenol, in coke oven plants, gas making plants, in lignite carbonisation, and in the prodn. of phenolformaldehyde resins (phenoplasts).
2.12.77 as 857356 (7pp931)

CLEV- ★ D15 47042B/25 ★US 4157-304
Aeration chamber for mixing gas and waste water - has internal taper configuration with gas and water passages intersecting at step surface
CLEVEPAK CORP 22.11.77-JA-140555
(05.06.79) B01f-03/04 C02c-01/08

A system for aerating waste water e.g. sewage comprises a mixing chamber which provides a waste water passage and includes an extending chamber. The chamber is tapered and has a step surface at which gas passages intersect the chamber to form parallel gas and water streams. Helical canes may be disposed in each gas passage for keeping the mixing within the extending chamber. When the interface between the streams becomes unstable, vortices are created and produce tiny gas bubbles which mix with the water.

The helical vanes inject air into the extending chamber to create better wave generating conditions to extend the range to greater air flow rates. Tapering of the chamber permits operation at higher air flow rates without blowing the bubble forming vortices out of the chamber. The bubbles are tiny and create a good environment for effective use of the oxygen by the bacteria present. The system can be quickly installed in any existing aeration pond. Little energy is wasted in turbulent mixing. 22.12.77 as 863588 (9pp1044)

BUCL D15 44129A/25 =US 4157-364

Compsn. used to prevent corrosion and incrustation in aq. systems - contg. di:methylamino methylene bis:phosphonic acid and water-soluble polymer such as polyacrylic or polymethacrylic acid

BUCKMAN LABS INC 25.10.77-US-845011 (08.02.78-US-875964)
*A97 E11 M14 (05.06.79) *BE-863-904 C07f-09/40*

In the prepn. of dimethylaminomethylene-bis(phosphonic acid) (I) and a chloroalkane RCl or dichloroalkane $R'Cl_2$ (where R is (un)branched 1-20C alkyl; R' is 2-10C poly methylene and n = 1-5), DMF is reacted with PCl_3 in the presence of (di)chloroalkane as solvent at <45°C. and the reaction mixt. is then reacted with an alcohol ROH or glycol, $R'(OH)_2$ or $HOCH_2CH_2(OCH_2CH_2)_nOH$, such that the temp. of the reactants remains below 45°C. Wate
added and the mixt. is heated to the b.pt. of the w
The desired prods. may then be recovered.

Quantitative yields of (I) are obtd. (I) is used i
compsns. for addition to cooling water systems, b
etc. to reduce metal corrosion and scale and slud
ation. 8.2.78 as 875964 (8pp945)

INDF ★ D15 B/25 ★ZA

Phosphate removal from organic waste water - using
sludge digester effluent in the presence of a biomass

INDIA COUNC OF SCI IND 23.03.78-ZA-001723
(02.04.79) C02c-01

The method comprises mixing digestor effluent fr
anaerobic sludge digester with the waste water in
sence of a biomass which is capable of accumulat
-phates; maintaining the mixt. in a phosphate rem
stage under sufficient available oxygen conditions
biomass to accumulate phosphates, and passing th
ture through a solids sepn. stage to provide a clar
effluent and a phosphate contg. sludge. 23.3.78 as
(29pp)

See Also

D12 GB 2547582 D13 J5 4060169 D22 J5 4056

D16: FERMENTATION INDUSTRY

BIOR- ★ D16 45675B/25 ★BE-872-680

Microbiological prepn. of mono and/or di:carboxylic acids - from hydrocarbon(s) and/or mono acids using Debaryomyces phaffii

BIO RESEARCH 14.12.77-JA-150064
E17 (12.06.79) C12d

A process for producing mono-and di-carboxylic acids from straight chain hydrocarbons of the same carbon chain length comprises aerobic cultivation of the microorganism debaryomyces phaffi ATCC 20499 in a nutrient medium using the hydrocarbons as substrate. A further embodiment comprises growing the above microorganism in a nutrient medium, sepng. the cellular mass, and allowing it to react aerobically on the hydrocarbons.

A further process using aerobic cultivation of the microorganism comprises using monocarboxylic acids as substrates to prepare dicarboxylic acids of the same chain length, or alternatively using monocarboxylic acids and hydrocarbons as substrates.

The use of the above microorgansims enables industrial application of the known microbiological process. 12.12.78 as 872680 (15pp597)

PACC/ ★ D16 B/25 ★BR 7707-682

Decantation of residues from distn. of alcohol - to obtain liquid fertiliser

PACCOLA A A 17.11.77-BR-007682
C04 (05.06.79) C05f-05

PIND/ ★ D16 45723B/25 ★CA 1056-073

Compost mfg. container - has apertured side panel to allow air admittance control and compost removal

PINDER J A 05.04.76-CA-249560
(05.06.79) C02c-03 C05f-09/02

Composting appts. is formed by a hollow container whose side walls are defined by ≥1 fluid impervious and ≥1 apertured panel. The apertured panel has upper and lower apertures to admit air and allow solids removal respectively. An adjustable closure in the upper aperture dictates the amt. of air admitted.

The lower aperture has a removable closure. A cover render the container liquid-tight. A mesh screen c
-ly covers the air aperture. 5.4.76 as 249560 (16p

PIND/ ★ D16 45724B/25 ★CA

Leaf composting appts. - has releasably mounted air di
admit air from atmosphere

PINDER J A 05.04.76-CA-249563
(05.06.79) C02c-03 C05f-09/02

Composting appts. has an air diffuser in an access
in the container for the compost to allow diffusion
from atmoshere into the container. The diffuser is
able in the opening and includes a hollow air conve
portion inside the container. The hollow portion ha
forations to permit air diffusion.

The diffuser pref. has a screen to prevent insec
ment. Pref. the diffusion has two hollow portions d
ing from a support for effecting attachment to the
5.4.76 as 249563 (11pp1376)

JAAT D16 08032Y/05 =DS

Prodn. of immobilized enzyme enclosed in porous poly
adsorbing on an adsorbent, adding monomer, and polymer

JAPAN ATOMIC ENERGY RES 23.07.75-JA-089209 (23.0
089207)
*A96 B04 (A14) (13.06.79) *DT2633-259 C07g-07/02*

Enzymes or enzyme-contg. cells are immobilised
rption on an (in)organic adsorbent in an aq. mediu
material dispersion is then mixed with a water-mi
polymerisable monomer, and the monomer polyme

The adsorbent (A) is an inorganic natural earth,
thetic inorganic adsorbent, active carbon, a natura
-thetic adsorption-capable carbohydrate or polypep
The monomer (B) has a formula CH_2=CK CO.O.(C
or CH_2=CX CO.O.$(R_1O)_mR_2$ (where R_1 is $-CH_2CH_2-$
$-CH(CH_3)CH_2-$; R_2 is H, methyl or CH_2=CXCO-; X
methyl; n is 2,3 or 4; m is 2-20) and is used alone
a second monomer (c) whose water-solubility is di
The amt. of the monomer (c) is ≤ 30 wt.% of total
er mixt. Polymerisation is effected at <0°C.

Pref. monomer (B) is 2-hydroxyethylmethacryl

ene glycol monomethacrylate. 23.7.76 as 633259
)

D16 45820B/25 ★DT 2754-830
cells cultivation - using cell-culture roll flasks
NGWERKE AG 09.12.77-DT-754830
.06.79) C12b-01/04

v process for culturing cells in cell-culture roll
the cells to be cultured are those of an amoeba
zoite. New apparatus for cell-structure processes
sk the bottom of which is strongly drawn into the
.
cultivation of unicellular parasitic organisms, esp.
eba. Previously, amoebae have not been cultivated
-culture roll flasks because the cells do not adhere
lask surface. It has now been found that growth is
d if the rate of rotation is kept low (<10 rotations
). The new type of roll flask gives a greatly in-
d internal surface area, and its use gives an in-
d yield of cells. 9.12.77. as 754830 (9pp280)

★ D16 45852B/25 ★DT 2755-124
t medium for microbe counts - contg. N-acetyl-L-cysteine,
n, magnesium, para-amino-benzoic acid, and thym(id)ine, to
nise antibacterial agents
HRINGER INGELHEIM 10.12.77-DT-755124
E19 (D13) (13.06.79) C12k-01/10

q. nutrient medium for microorganisms is based
ual carbon and nitrogen sources; usual drug-inacti-
ingredients; and opt. usual solidifying agents,
substances and trace elements. The drug-inac-
g ingredients are (per litre of water) 0.2-0.5g N-
-L-cysteine, 3.5-15mg Ca^{2+}, 50-150 mg Mg^{2+}, 40-
p-aminobenzoic acid and 7.5-15 mg thymine or
dine. The medium opt. also contains "Tween"(RTM)
ecithin, Mn^{2+}, Fe^{2+} or Fe^{3+}, and sodium, carbonate
hosphate or hydrogen phosphate ions.
e medium is used for determn. of microbe counts
ecimens contg. antagonists, antibiotics or residues
her chemotherapeutic agents, esp. on water, (prods)
neat prods. It is also useful in determn. of microbe
s in specimens from patients undergoing antibac-
l therapy, helping to avoid continuation of treatment
ineffective drugs but avoiding the need to cease drug
nistration prior to taking the specimen. 10.12.77. as
24 (7pp280)

- ★ D16 45939B/25 ★DT 2852-779
ourt lyophilisate for cosmetic and pharmaceutical use - with
free amino acid content and contg. metabolites of
tococcus thermophilus and Lactobacillus bulgaricus
SO PHARMACHIM 06.12.77-BG-037971
04 (D21) (13.06.79) A61k-07/48 A61k-37/18 C12k-03

lyophilisate for cosmetic and pharmaceutical use
uced from milk by enzymatic degradation is obtained
yoghurt and has the following composition: 15.5-
% free amino acids, 5-11% water, 45-50% lactose,
3% total protein, 25-28% soluble protein, 1.4-2%
one nitrogen, 7-8% ash, degree of acidity 130-150°T,
3.8-4.1. > 100,000 active Lactobacillus bulgaricus
per g lyophilisate.
ne lyophilisate has a high content of free amino acids,
contains all of the components of the yoghurt from
h it is derived and the metabolites formed by Strep-
ccus thermophilus and Lactobacillus bulgaricus. It
be used e.g. in creams for moisturising, feeding
healing human skin. 6.12.78. as 852779 (6pp280)

See page 22 FR 2403-013

D16 16278Y/09 =GB 1547-411
nol from cellulosic fibres - by concurrent digestion with
ulase and fermentation with a yeast
IO-INDUSTRIES INC 22.08.75-US-606789
*(20.06.79) *US4009-075 C12c-11/22*

anol is prepd. at low cost from cellulosic fibrous mat-
al by steam sterilising the cellulosic material and sub-
ting it to a concurrent digestion and fermentation react-
with an innoculum mixt. of cellulose enzyme and a non
oteolytic yeast or yeast substit .
Cellulosic material is converted to simple sugars,

ulum mixt. is recycled to be reused in a subsequent batch of sterilised cellulosic material, or with additional material added to the original batch. Pref. ethanol is recovered by vacuum stripping. 16.8.76 as 034082 (4pp931)

USAS D16 89803Y/50 =GB 1547-556
Electrophoresis appts. with automatic multiple sample applicators - released simultaneously to fall under gravity onto sample supporting medium
US NAT AEROSPACE AD 24.11.76-US-744574
*B04 J03 R16 (20.06.79) *US4061-561 G01n-27/26 +G01n-01/10*

Electrophoresis appts. includes a tank, multiple sample applicators having tips for holding fluid samples to be analysed, the tips being received through openings in the tank cover, and a device to coact with the applicators to simultaneously release the samples onto a medium in the tank.

The device pref. comprises ≥1 release button acting on springs keeping the applicators in a retracted position. A number of samples may thus be applied simultaneously. 24.11.77 as 048957 (4pp1379)

DAVI/ ★ D16 46041B/25 ★GB 2009-785
Metabolite extraction from cells by shock excretion - by treating cells with membrane disrupter which does not decrease cell viability
DAVIES T M C 17.11.78-GB-045017 (23.11.77-GB-048760)
B04 (20.06.79) C12c-11/34

The repeated removal and collection of low mol. wt. metabolites from cells comprises (1) contacting the cells with a membrane disruptant which (a) reduces the integrity of the membrane so as to allow escape of low mol. wt. metabolites into the surrounding medium, and (b) does not reduce the viability of the cells; (2) separating the cells from the metabolites before the metabolites have been reassimilated by the cells; (3) supplying the separated cells with nutrient for a time sufficient to allow restoration of the level of low mol. wt. metabolites to a level normally found prior to bud initiation; and (4) recycling the resulting cells to step (1).

Used esp. for obtaining nucleotides and amino acids from fungal cells such as yeast cells. The metabolites can be recovered from the cells without killing the cells, thus allowing the cells to be recycled and used repeatedly. 17.11.78 as 045017 (4pp914)

DAIL ★ D16 46290B/25 ★J5 4058-270
Filter aid for use in filtering alcoholic drinks - consists of refined linter fibre comprising mainly alpha-cellulose
DAICEL KK (KIKU-) 18.10.77-JA-124861
F09 J01 (10.05.79) B01d-37/02 B01d-39/18

Filter aid consists of refined linter fibre having an α-cellulose content of > 95%, a fibre length of 0.6-1.5 mm, and a degree of beating of 30-55°. The filter aid is used to filter alcohol drinks, e.g. sake, wine or beer. By adding the filter aid to the drink, hydrophilic impurities are adsorbed by the filter aid.

In an example, the refined linter fibre was produced by subjecting linter fibre to refining, beating, paper-making and wet disaggregation. The refined linter fibre obtd. consisted of 97.85 wt.% of α-cellulose, 0.11 wt.% of β-cellulose, 2.04 wt.% of γ-cellulose and 0.06 wt.% of fats and oils, and contained 18.57 ppm of Fe, 1.64 ppm of Cu and 2.74 ppm of Mn, and had a fibre length of 1.253 mm, a beating degree of 53° and a polymerisation degree of 1700-1800. 18.10.77 as 124861 (5pp86)

ORIY ★ D16 46305B/25 ★J5 4058-490
Compsn. for use in cholesterol determn. - contains methanol, reduced glutathione, NAD, cholesterol oxidase, catalase and formaldehyde dehydrogenase
ORIENTAL YEAST KK 19.10.77-JA-124482
B04 R16 (11.05.79) G01n-31/14 G01n-33/16

An agent for use in determining cholesterol comprises methanol 0.5-5 M., reduced type glutathione 0.5-1.5 mM., NAD 0.5-5.0 mM., cholesterol oxidase 0.2-5.0 µ./ml., catalase 25-1000 µ./ml. and formaldehyde dehydrogenase 0.5-5.0 µ./ml. (pH 7.0-9.0).

A method of determining cholesterol comprises treating formaldehyde, formed in the treatment of a cholesterol-contg. sample with cholesterol oxidase and catalase in the presence of methanol and oxygen, with formaldehyde dehydrogenase in the presence of reduced type glutathione to convert NAD into NADH, and determining the amt. of increased NADH.

Cholesterol in the blood, etc. can be precisely determined in short time. The increase of NADH is determined by an increase in the absorbance at 340 nm. 19.10.77 as 124482 (3pp50)

ORIY ★ D16 46306B/25 ★J5 4058-491

Compsn. for use in glucose determn. - contains methanol, reduced glutathione, NAD, glucose oxidase, catalase and formaldehyde dehydrogenase

ORIENTAL YEAST KK 19.10.77-JA-124483

B04 R16 (11.05.79) G01n-31/14 G01n-33/16

An agent for use in determining glucose comprises methanol 0.5-5 mM., reduced type glutathione 0.5-1.5 mM., NAD 0.5-5.0 mM., glucose oxidase 1-20 u./ml., catalase 25-1000 u./ml. and formaldehyde dehydrogenase 0.5-5.0 µ./ml. (pH 7.0-8.0).

A method of determining glucose comprises treating formaldehyde, formed in the treatment of glucose-contg. sample with glucose oxidase and catalase in the presence of methanol, with formaldehyde dehydrogenase in the presence of reduced type glutathione to convert NAD into NADH, and determining the amt. of increased NADH.

Glucose in the blood, urine, etc. can be precisely determined in short time. The increase of NADH is determined by an increase in the absorbance at 340 nm. 19.10.77 as 124483 (4pp50)

CHUS ★ D16 46453B/25 ★J5 4059-201

Antibiotic 216 - having potent antibacterial activity against pathogenic bacteria, including Klebsiella pneumoniae and Pseudomonas aeruginosa

CHUGAI PHARMACEUTICAL KK 14.10.77-JA-122528

B04 (12.05.79) A61k-35/70 C07g-11 C12d-09/14

Novel antibioitic No. 216 is (1) an orange yellow scaly amorphous substance of metallic lustre; (2) has an elemental analysis of C 38.83, H 5.22, N 1391, S 2.62, Fe 4.68%; (3) m.pt. ≥ 300 °C (decompsn.); (4) characteristic IR and UV spectra; (6) is negative to Ninhydrin, $KMnO_4$, benzidine, Dragendorff, I_2 on TLC and H_2SO_4 on TLC; (7) unstable in acid, stable in neutral to alkaline medium, inactivated by heating at 100°C for 60 mins. in neutral medium; (8) readily soluble in H_2O, DMSO, hardly soluble in MeOH, insoluble in EtOH, Me_2CO and Et_2O; (9) has an Rf (TLC on cellulose) of 0.2 (BuOH: AcOH: H_2O = 3:1:1), 0.1 (i-PrOH: ammonia: H_2O = 7:1:2), 0.75 (MeOH: H_2O: Et_3N = 80:15:5), 0.8 (Me_2CO: H_2O = 1:1); Rf (TLC on silica gel): 0.0 (BuOH: AcOH:H_2O = 3:1:1), 0.0 (i-ProH: ammonia: H_2O = 7:1:2), 0.75 (MeOH: H_2O:Et_3N = 80:15:5).

Antibiotic No. 216 has potent antibacterial activity against a wide variety of pathogenic bacteria including E. coli M.I.C. of 0.005 ~ 0.0012 µg/ml, 6 strains), Serratia marcescens (0.005), Klebsiella pneumoniae (0.01 ~ 0.0025, 35 strains) and Pseumomonas aeruginosa (~ 3.12, 20 strains). 14.10.77 as 122528 (11pp38)

KYOW ★ D16 46454B/25 ★J5 4059-202

Antibiotic SU-2 - prepd. by culturing strain of micromonospora in nutrient medium

KYOWA FERMENTATION KK 18.10.77-JA-124030

B04 (12.05.79) C07g-11 C12d-09/14

Antibiotic SU-2 and its non-toxic acid addition salts are claimed. The antibiotic in a basic, white powder of elementary analysis: C 48.38%, H 8.72%, N 11.83% it has a mol. wt. of 450, molecular formula: $C_{19}H_{38}N_4O_8$ and m. pt. 102-112°C. It has no characteristic UV absorption band at 220-360 nm (in water) and is easily soluble in water, soluble in methanol, ethanol or acetone, and insoluble in chloroform, benzene, ethyl acetate, butyl acetate, ether, butanol, petroleum ether and n-hexane. It is positive to ninhydrin and potassium permanganate reactions, and negative to Elson-Morgan's and Biuret reactions.

The antibioitic shows broad antibacterial spectrum. The MIC (γ/ml) value as estimatedby agar dilution method is as follows: Pseudomonas alcaligenes KY 4655 (0.033), St. aureus ATCC 65389 (0.008), E. coli ATCC 26 (0.008), B. subtilis No. 10707 (0.00025), Proteus vulgalis ATCC 6897 (0.0167), Salmonella typhosa ATCC 9992 (0.0 pneumoniae ATCC 10031 (0.004).

The antibioitic SU-2 can be prepd. by cultivating antibioitic SU-2-producing strain of Micromonospor nutrient culture medium and recovering the antibiot the cultured broth. It is pref. prepd. by cultivating -monospora sagamiensis (NRRL 11,182) in a nutrie medium at 25-40 °C under neutral conditions for 1-1 18.10.77 as 124030 (9pp33)

TAKE ★ D16 46494B/25 ★J5 4

Stable freeze-dried encephalitis Japonica virus vaccine - p presence of dextran and gelatin

TAKEDA CHEMICAL IND KK 18.10.77-JA-125611

B04 C03 (12.05.79) A61k-39/12 C12k-05

Prepn. of stable freeze-dried encephalitis Jaoinica and vaccine comprises freeze-drying inactivated en itis Japonica virus vaccine liquor in the presence of tran and gelatin. The temp. sensitive starting comp may be converted into a stable freeze-dried prod. w drop of potency.

Pref. concn. of dextran is ca. 0.1-4.0 wt.)vol.% partic. ca. 0.2-2.0 wt/vol.%, pref. gelatin concn. i 0.1-3.0 wt./vol.%, partic. ca. 0.2-2.0 wt./vol.%. 18.10.77 as 125611 (3pp69)

SUKA ★ D16 46511B/25 ★J5 4

Biologically decomposing naphthalene sulphonic acid cultivating Flavobacterium capsulatum in medium contg. the sole carbon source

SUGAI KAGAKU KOGYO 19.10.77-JA-124595

E14 (12.05.79) C02c-01/02 C12k-01/06 C12k-03

Biological decompsn. of naphthalene sulphonic acid (I), comprises incubation of Flavobacterium capsula (II) in a culture medium contg. (I) as the sole carbo ce, at 20-35 °C for 10-15 days by successive transfe ture.

Pref. (II) is ATCC 4266; (I) is pref. 2-naphthyl a 1-sulphonic acid, 1-naphthalene sulphonic acid, 2-n alene sulphonic acid and 2-hydroxy naphthalene-1-su onic acid.

By this method, (I) canbe decomposed inexpensiv 19.10.77 as 124595 (5pp42)

MITN ★ D16 46512B/25 ★J5 40

Yeast culture - using fungal strain of Candida cocaoi, Har jadinii, Hansenula fabianii or Pichia kludriavzevii, P. farinos rhodanensis

MITSUBISHI GAS CHEM IND 14.10.77-JA-123175

(12.05.79) A23k-01 A23l-01/28 C12c-11/08

The process comprises culturing a fungal strain of C dida cacaoi, Hansenuela jadinii, Huncenulla fabianii, Pichia kludriavzevii Pichia farinosa or Pichia rhoda sis genus that may assimilate acetic acid, in a cultu medium contg. acetic acid and opt. ethanol as main on source, and removing the fungal body.

Pref. fungal strains are Candida cacaoi CBS-2020 Hansenula jadinii IFO-0987, Hansenula fabianii IFO- Pichia kludriavzevii IFO-1279, Pichia farinosa IFO- and Pichia rhodanensis IFO-1272, all of which assim ethanol. 14.10.77 as 123175 (10pp69)

KOKU- ★ D16 46513B/25 ★J5 40

Aerobic incubation of edible Basidiomycetes - in culture m contg. waste water from distn. of whisky, grain alcohol etc.

KOKUZEI-CHO CHOKAN (KIBU-) 19.10.77-JA-124564

P13 (12.05.79) A01g-01/04 C12k-01

Aerobic incubation of edible Basidiomycetes (I) takes in culture medium contg. the components in distiller ubles (II), which is obtained by centrifugation or filtr of (II) or (II) - concentrateand, if necessary, fractio of components having a certain molecular weight. (I waste water in whisky-distillation and grain alcohol lation. The centrifugation should be carried out at a volution speed higher than 50,000 G and 1-10% of filt aid should be added to (II) or (II)-concentrate in filtra

Used to remove suspended impurities and fat to m (II) suitable for food production. 19.10.77 as 124564

D16 46514B/25 ★J5 4059-392
hich decomposes DNA - is prepd. by incubating suitable
icroorganism and purifying mycelium obtd.
AKU RES LABS KK 14.10.77-JA-123076
05.79) C07g-07/02 C12d-13/10

yme B-1 which (a) decomposes DNA, (b) exhibits
tivity at pH 6-8 and (d) is activated by the pres-
Mg ions, is claimed. Enzyme is prepd. by (i) in-
B-1 producing Bacillus microorganism (II) in a
medium contg. protein-decomposed prod. and (ii)
g mycelium obtd. by lysozyme-treatment, ultra-
rinding, ion exchange chromatography etc.
can recognise the position at which one of the two
in the DNA chain is cut, and can cut another
selectively. (II) is esp. Bacillus subtiles Marburg
1026. 14.10.77 as 123076 (7pp42)

D16 46515B/25 ★J5 4059-393
is of N-chloro:acetyl-metal hydroxy-DL phenyl:glycine - by
ng in presence of Thiobacillus to produce meta-hydroxy-1-
glycine and N chloro:acetyl-metal-hydroxy-D-
glycine
YU PHARM CO LTD 14.10.77-JA-122518
2.05.79) C07b-19/02 C12d-13/06

of N-chloro acetyl-m-hydroxy-DL-phenyl glycine
m-hydroxy- L-phenyl glycine (II) and N-chloroace-
hydroxy-D-phenyl glycine (III) is effected by hydro-
f (I) in the presence of incubation prod. (IV) of
(V) belonging to Thiobacillus, Azotobacter or Myco-

lase obtd. by incubation of (V) can hydrolyse N-
acetyl-m-hydroxy-L-phenyl glycine to (II) select-
nd (III) can be sepd. from (I). (V) belonging to
acillus can utilise carbon dioxide as carbon source
culture medium for its incubation, a small amt. of
c acid is added for activation of enzyme, in addition
rogen source and sulphide-contg. corn steep liquor.
.77 as 122518 (4pp42)

★ D16 46516B/25 ★J5 4059-394
of N-benzoyl-m-hydroxy-DL-phenyl glycine - into meta-
y-L-phenyl glycine and N-benzoyl meta-hydroxy-D-phenyl
e
NYU PHARM CO LTD 14.10.77-JA-122519
12.05.79) C07b-19/02 C12d-13/06

of N-benzoy-m-hydroxy-DL-phenyl glycine (I) into
droxy-L-phenyl glycine (II) and N-benzoyl-m-hydroxy
henyl glycine (III), comprises hydrolysis of (I) in the
ence of incubation prod. (IV) of strain (V) belonging to
bacter.
cylase obtd. by incubation of (V) can hydrolyse N-
oyl-m-hydroxy-L-phenyl glycine to (II) selectively
III) can be sepd. from (I).
) can utilise N_2 in air and therefore no nitrogen
ce needs to be added to culture medium. However
ncreased yield of enzyme, yeast extract, corn steep
r, nitrate and ammonium salt are pref. added. In-
tion of (V) is carried out at pH 6.5-7.5 and 25-35°C
0-40 hrs. As (IV), frozen mycerium or dried my-
um obtd. from culture medium are used. 14.10.77
22519 (4pp42)

★ D16 46517B/25 ★J5 4059-395
gical prodn. of androstane cpd. - by cultivation of mutant strain
ycobacterium parafortuitum or neoaurum in medium contg.
l cpd.
ITSUBISHI CHEM IND KK 17.10.77-JA-124188
01 (12.05.79) C12d-13

logical prodn. of androstane cpd. (I), comprises in-
ation of mutant(II) of the strain belonging to Mycobact-
m parafortuitum complex or Mycobacterium neoaurum
ulture medium contg. sterol cpd. (III) as substrate.
(I) can be produced in high yield. (II) is obtd. by UV
atment or N-methyl-N'-nitro-N-nitrosoguanidine-treat-
nt of My. parafortuitum complex or My. neoaurum.
amples of (I) produced are androstane-1, 4-dien-3, 17-
ne and endrostane-4-en-3, 17-dione. Examples of (II)
MCI 0801 and MCI 0902. As (III), cholesterol, stig-
sterol, sitosterol, ergosterol, lanosterol, dihydrolano-
ol and others are used. 17.10.77 as 124188 (7pp42)

BANY ★ D16 46518B/25 ★J5 4059-397
Cephazolin prodn. - by acylating with a cephem carboxylic acid, 1H tetrazolyl-1-acetic acid in aq. medium in presence of Arthrobacter microorganism culture
BANYU PHARM CO LTD 20.10.77-JA-125192
B02 (12.05.79) C12d-13

Prodn. of cephazoline comprises acylating 1H-tetrazol-1-acetic acid or its reactive deriv. with 7-amino-3-(5-methyl-1, 3, 4-thiadiazole-2-il)thiomethyl-3-cephem-4-carboxylic acid in aq. medium in the presence of culture mixt. of Arthrobacter genus of fungi or culture liquor-treated prod.

7-Amino-3-(5-methyl-1, 3, 4-thiadiazole-2-il)thiomethyl-3-cephem-4-carboxylic acid is acylated enzymatically to give cephazoline useful as drug for chemotherapy.
20.10.77 as 125192 (4pp69)

ALEK/ ★ D16 46662B/25 ★SU -233-169
Anti-influenza vaccine for mass oral vaccination - prepd. from passivated live virus culture using young chick and chick-embryo kidney cells for culturing
ALEKSEEV A K 12.11.66-SU-111738
B04 (20.02.79) A61k-35/76 C12k-05

Influenza vaccine based on live type-A_2 virus of decreased virulence can be administered orally in bonbons or similar sweets to secure massive inoculation.

It is prepd. from influenza A_2/1965g virus adapted to a culture of kidney cells from chick embryos and 1-4 day-old chicks, sugar syrup and children's nutrient meal.

Alekseeva, A.K., Yakovleva, L.A., Vasileva, I.N. et al. Bul. 6/15.2.79. 12.11.66. as 111738 (1pp835)

PROT= ★ D16 46700B/25 ★SU -497-836
Nutrient medium for culturing fungal cellulase producers - includes beet pulp, potato waste, mineral salts and water to increase enzyme yield
PROTEIN BIOSYNTH 18.05.73-SU-921979
(28.12.78) C12b-03 C12d-13/10

Nutrient medium for deep culturing a cellulose producer e.g. Geotrictum candidum comprises: 2.5-7% beet pulp, 5-50% granular potato residues, 0.2-0.4% $NaNO_3$, 0.4-4% $(NH_4)_2SO_4$, 0.1-0.3% KH_2PO_3, 0.1-0.3% $MgSO_4$ and balance water. Inclusion of the potato-based component improves the ferment yield and reduces costs.

Kaluayants, K.A., Vaganova, M.S., Burova, G.V. et al. Bul. 47/25.12.78. 18.5.73. as 921979 (2pp314)

NUCL= ★ D16 46856B/25 ★SU -620-581
Drilling mud cleaning - using hydrocarbon(s) utilising microorganisms and preheated air, to combine aeration with biological purification
NUCLEAR PHYSICS RES 10.12.76-SU-428409
H01 Q49 (12.07.78) E21b-21

Drilling mud purification is effected by an aeration process. To regulate the gas saturation of the mud and to provide a cleaner mud product typically during gas logging in holes, the air is supplemented by introduction of hydrocarbons utilising microorganisms. The air which is injected into the mud is preheated to 20-40°C.

Mogilevskii, G.A., Stadnik, E.V., Barysheva, S.V. et al. Bul. 31/25.8.78. 10.12.76. as 428409 (2pp26)

HEDE/ ★ D16 46972B/25 ★SW 7707-720
Disposable device for routine microbiological analysis - has two superimposed modules of different heights, with enclosed cavity divided by parallel walls into series of analysis chambers
HEDEN C G 04.07.77-SW-007720
J04 (29.01.79) C12k-01/04

GLAX D16 73900A/41 =US 4157-278
Water soluble immunostimulating peptidoglycan material prepn. - by solubilisation of cell wall material of Streptomyces griseus and sepg. nucleic acid material
GLAXO LABS LTD 22.03.77-GB-012090
*B04 (05.06.79) *NL7803-034 A61k-37 +C12b-01*

Prodn. of a water-soluble fraction contg. peptidoglycan material having an immunostimulatory activity comprises treating the mycelium of a strain of streptomyces griseus with a bacteriolytic enzyme in an aq. medium to solubilise bound peptidoglycan components of the cell walls in the aq. medium to yield a fraction contg. the desired immunostimulating activity.

The process includes sepg. nucleic acid material from the peptidoglycan fraction.

Pref. the cells are ruptured and the protoplasm washed from the insol. cell wall material prior to solubilisation. 21.3.78 as 888782 (5pp982)

SCHW- D16 09287X/06 =US 4157-279

Determination of iso-enzymes of lactate dehydrogenase - by transformation of lactate and of nicotinamide adenine dinucleotide with pyruvate at specific pH values

SCHWARZHAUPT KG 12.09.74-DT-443741

*B04 R16 +P31 (05.06.79) *BE-833-348 G01n-31/14*

Pathological changes in the lower female genital tract are diagnosed by determining specific isoenzymes of the lactatedehydrogenase by applying a test reagent contg. 1-150 mM of a buffer giving a pH of 7 for the reagent prior to use, 20-350 mM Na salt of DL-lactic acid, 0.01-1.0 mM phenazinemethosulphate, 0.1-10 mm. NAD^+ and 0.01-1.5 mM nitro-blue-tetrazoliumchloride onto a carrier adapted for insertion into the vagina, inserting the carrier in the vagina, the test reagent providing a pH of 6-6.5 when in the vagina, leaving the carrier for ⩾10 mins., removing the carrier and observing the carrier for the appearance of a blue colour indicating the presence esp. of isoenzymes 4 and 5.

Pref. the buffer is triethanolamine-NaOH and the carrier is a tampon. 7.6.77 as 804377 Div.ex. 4003795 (+12.9.75; 15.9.76-US-612633; 723649) (5pp982)

CRDC D16 26491Y/15 =US 4157-280

Hepatis-associated antigen detection - using enzyme-labelled antibodies

CORDIS CORP 29.09.75-US-617745

*B04 R16 (05.06.79) *NL7610-801 G01n-33/16 +G01n-31/14*

Test set for detecting antigens, associated with hepatitis is a test sample comprising an insol. polymeric solid with a layer of protein reactive gps. grafted onto its surface and hepatitis associated antibody bonded to the reactive gps.; an alkaline phosphatase-antibody conjugate reagent for labelling hepatitis immobilised on the solid; an enzyme substrate which is chemically changed under the catalytic influence of the alkaline phosphatase; and a flat-bottomed vial sized to receive the solid.

The surfaces of the polymeric solid are distorted to comprise a field of high and low points to provide a solid, which when placed in the vial, will contact any soln. in the vial while minimising surface-to-surface contact. 29.9.75 as 617745 (8pp982)

DENG- ★ D16 47041B/25 ★US 4157-303

Rotating disc-type biological waste water treatment appts. - with disc assembly comprising parallel discs fixed either side of impeller blade and including suction opening

DENGYOSHA MACH WORK 23.08.77-JA-100128

(05.06.79) B01d-21

A biological waste water treatment appts. comprises a rotating disc assembly carried on a rotatable shaft with discs having lower halves immersed in waste water retained in a tank. The assembly includes a plurality of centrifugal impellers arranged in parallel side-by-side relationship on the shaft. Each impeller includes a plurality of radial blades positioned between a pair of parallel discs. A suction opening is formed at the centre of one of the
discs. The rotating disc assemblies may be arran
parallel or in tandem. The outlet periphery of eac
discs may be closed by an annular band.

The appts. includes broad surface areas of rot
semblies for attaching microorganisms in spite of
axial length and achieves high purification perforn
without increasing driving power. The size of the
device is small due to the compact construction of
ing disc assembly. The appts. can perform both a
denitrification and aerobic oxidation and nitration.
as 865244 (7pp1044)

KITA D16 57979Y/33 =US

**Pseudomonas aeruginosa toxoid vaccine - contg. elasta
and protease toxoid obtained from Pseudomonas aerugino**

KITASATO RES INST (SHIO KITA) 05.02.76-JA-010838

*B04 C03 (05.06.79) *DT2704-766 A61k-39/02 +A61k-*

Mixed vaccine against infections caused by Pseudo
aeruginosa (I) comprises as the antigen, an elasta
obtd. from (I) which is formaldehyde (II) or oxyme
sulphinic acid (III) deactivated and purified by lyop
tion and dialysis, and a protease toxoid also obtd. f
deactivated by (II) or (III) in the presence of an ami
and purified by lyophilisation or dialysis.

Vaccine is useful in human and veterinary medic
esp. for admin. to minks, where (I) causes haemor
pneumonia and also in bovines etc. for mammitis.
28.1.77 as 763538 (8pp963)

OCTR- ★ D16 47083B/25 ★US

**Vaccine for reducing incidence of neonatal diarrhoea in ma
prepd. by adsorption of K88a,b adhesion factor or Escheri
onto chicken erythrocytes**

OCTROPA INT OCTROOI 12.06.77-GB-025221

B04 C03 (05.06.79) A61k-39/02

Prepn. of a vaccine for parenteral admin. to pregn
mammals comprises adsorbing a K88a, b/adhesion f
tor of an enteropathogenic strain of E. coli from a c
free aq. soln. onto erythrocytes possessing their na
surface characteristics. The ratio of adsorbed K88a
adhesion factor to vol. of erythrocytes present is 12
hemagglutination units per ml. The compsn. formed
dered storable by addn. of a preservative such as so
azide or formalin.

Vaccine reduces the incidence of neonatal diarrho
Compsns. are pref. administered to pregnant sows
3 weeks before farrowing. 24.7.78 as 927577 (+10.6
6.5.77-US-694613; 794384) (4pp954)

BEAF ★ D16 B/25 ★ZA 78

**Stable freeze-dried Lowenstein-Jensen medium - which
reconstituted for use in tuberculosis testing**

BEATRICE FOODS CO 27.05.77-US-801329

B04 C03 (D13) (10.04.79) C12d-09

Medium comprises a freeze-dried form of a Lowenst
Jensen medium, the moisture content of the medium
< 8 wt.%. The reconstituted medium exhibits tuberc
testing accuracy equal to that of freshly prepared Lo
stein-Jensen medium. 19.5.78 as 002875(25pp)

See Also

D11 SU 621333
D13 SU 436905
D21 SW 7711735
D13 GB 1547412
D15 GB 1547454
D25 DS 2819940
D13 J5 4060169
D15 J5 4060168

D17: SUGAR; STARCH

FMCC D17 81638T/52 =DS 2226-297

Modified agar(ose) - with lower gelling temp esp as substrate for electrophoresis

FMC CORP (MRCO) 07.06.71-US-150778

*A96 B04 (A11) (13.06.79) *DT2226-297 C08b-37/12*

Agar or agarose is modofied by ethylating, propylating, alkenylating (with 2-3Cgp), or hydroxyalkylating (with 1-4C gp), opt. after prior reduction of the terminal aldehyde gps to hydroxyl. Pref. the material is hydroxyathylated w
2-chloroethanol or ethyleneoxide.

Process is used to lower the gelling and melting te
to give gels of improved clarity. 30.5.72 as 226297(4p

D17 45855B/25 ★DT 2755-130
sugar crystals continuously for subsequent processing - in
ith overflowing annular chambers concentric to centrifuge
IG & LANGE 10.12.77-DT-755130 (00.00.77-DT-704427)
3.06.79) C13f-01/02

ess for making crystalline sugar into a mash as it
vered from a continuous centrifuge, drenched with
, and together with the fluid is mixed into the con-
ly circulating mash. The magma obtained is drawn
tinuously by overflow and transferred to other plant
ther processing, whilst the mash,together with the
ously inflowing crystals is pumped in a circuit in
tically vertical plane.
mash and the crystals added to it, are pumped
first chamber to a second chamber from which they
uously overflow again into the first chamber. A
more uniform flow of the mass is obtained. The
ow from the first ring chamber is correspondingly
ved so that the magma going to the subsequent pro-
g machines is of extraordinarily uniform consis-
The various recirculating lines called for in the
t patent are unnecessary, and a further advantage
t the pumps no longer have to be installed outside
ntrifuge. 10.12.77. as 755130 Add to 2704427
045)

★ D17 B/25 ★SW 7811-162
xylose and xylitol prodn. - by treating opt. bleached
ood pulp with alkaline soln.
MI OY 28.10.77-SF-003217
F09 (E13) (05.06.79) C08b-37

n. of xylan, xylose and xylitol from opt. bleached
wood pulp comprises first dissolving hemicelluloses
alkaline soln. for prodn. of quality pulp.
he hemicelluloses, consisting almost exclusively of
, separate out from the soln., which are sepd. from
by pressing or filtration, then addn. of CO_2, metha-
thanol or water.

The prod. can be hydrolysed or catalytically hydrogenated. 27.10.78 as 011162 (pp903)

TORA ★ D17 47026B/25 ★US 4157-267
Continuous sepn. of fructose from glucose - using a solid crystalline aluminosilicate zeolite
TORAY INDS INC 24.08.76-JA-100151
(05.06.79) C13k-01 C13k-03 C13k-11

Continuous, liq. phase sepn. of fructose (I) from a mixt. of (I) and glucose (II) is effected by selective sorption of (I) onto solid particles of a crystalline alumino-silicate or zeolite sorbent (III) using a simulated counter current flow system. Liq. streams are allowed to flow through desorption (D), rectification (R), and sorption (S) zones which are serially and circularly interconnected. Each zone consists of more than one serially interconnected section, each of which is packed with (III) particles.

Liq. feed mixt. is passed to the 1st (S) zone (S_1), and H_2O is passed (as desorbent) to D_1. A portion of the desorption effluent (consisting of the sorbate and H_2O) from the last section of (D) zone is withdrawn to afford (I). A portion of the raffinate effluent (contg. less sorbed sugars and H_2O) is withdrawn from a point such that $\geqslant 1$ section of (S) remains downstream of it. In addn., all the points of introducing and withdrawing the liq. streams into and from the sections are simultaneously moved one section at a time in a downstream direction at predetermined intervals while the same order of continuity and the same spacial relationship between the points are maintained. The liq. streams flow in the 3 zones without any interruption in flow between (D) and (R).

Economical, industrial scale process affords a ready sepn. of (I), a high-grade sweetener. 22.8.77 as 826640 (12pp478)

See Also

D15 GB 1547454 D15 J5 4058949 D15 J5 4058951

D18: SKINS; HIDES; LEATHER; TOBACCO

/ ★ D18 45906B/25 ★DT 2849-676
r used in footwear mfr. e.g. processing of pieces of leather -
elatively soft plastics or rubber mantle in which frictional metal
cles are embedded
EUZE G 08.12.77-CH-015055
88 Q35 (13.06.79) B65g-39/07

stic drive element esp. drive roller used in mfr. of
footwear components e.g. for slicing or splitting
ces of leather, has a surface which is yielding at least
ome degree.
olid particles are embedded in it, whose exposed sur-
es have a relatively high frictional structure. The
er has suitably a plastics or rubber mantle, e.g.
ber, rubbery polyurethane or silicone rubber. The
edded particles may be a Cu-Zn alloy, esp. brass,
exposed parts coated with a frictional layer e.g. Mo.
11.78. as 849676 (27pp267)

B ★ D18 45975B/25 ★FR 2403-033
pn. of tobacco using alkali metal salt, esp. carbonate -
pregnated before or during fermentation treatment
SERVICE EXPL IND TABACS 15.09.77-FR-027847
P15 (18.05.79) A24b-03/12

e process comprises using at the fermentation treat-
nt tobacco which has been impregnated with an alkali
etal salt. The salt is pref. a carbonate esp. of potassi-
. The impregnation is pref. effected before or during
e fermentation treatment. The salt is pref. added to a
eep liquor from another tobacco. The tobacco is pref.
ored in a confined area to ensure a good impregnation.

The fermentation treatment is pref. carried out at a moisture content of 30-50%.

The addn. of the salt enables a faster and more complete fermentation. It also inhibits the growth of moulds and reduces the amt. of condensates in the smoke of cigarettes made from the tobacco. 15.9.77 as 027847 (11pp597)

NISB ★ D18 46519B/25 ★J5 4059-400
Binder for reformed tobacco leaves - comprises polysaccharide derived from Porodisculus pendullus
JAPAN TOBACCO & SALT PUB 20.10.77-JA-125115
A97 P15 (12.05.79) A24b-03/14 C12d-13/04 C12k-01

A binder (I) for reformed tobacco leaves, principally com-posed of the polysaccharide (II) elaborated by Porodisculus pendullus (III) in Basidiomyctes.

(I) is used for reformation of artificial tobacco leaves from tobacco powder and other vegetable powders that are produced for reformation of artificial tobacco leaves and/or accumulated from surroundings of tobacco processing machines. As (I), carboxy methyl cellulose, methyl cellulose, guar gum and others have been used. However they damage the taste of tobacco. The present (I) does not damage the taste and has high binding effect. 20.11.77 as 125115 (5pp42)

FURI= ★ D18 46718B/25 ★SU -600-182
Animal skins liquid treatment apparatus - has blades between worm turns, to intensify treatment
FUR IND RES INST 01.12.75-SU-194756
(05.04.78) C14c-15

Apparatus for liquid treatment of skins, particularly furs, worm and a drive. To intensify treatment, there are blades located between neighbouring turns of the worm, secured to it and forming screw surface sections directed oppositely to the screw.

The blades are pref. perpendicular to the worm turns, and the diameter of the sections formed by the blades exceeds the worm diameter, the projecting blade parts being of elastic material. The apparatus permits operations to be performed without reloading, by carrying intermediate squeezing inthe apparatus.
Shakhet, G.P., Purim, Ya.A., Malyshko, L.A. et al. Bul. 12/30.3.78. 1.12.75. as 194756 (5pp1358)

KDFO= ★ D18 46942B/25 ★SU-621-341
Increasing volume of tobacco - by vacuum impregnation with organic liquid and thermal evaporation by heating with vapour of higher boiling liquid e.g. steam
KRASD FOOD IND RES 22.10.76-SU-413659
P15 (17.07.78) A24b-03/18

The volume of tobacco can be increased by impregnating the tobacco with an organic liquid under subatmosph press., and then evaporating the liquid.

The process is intensified by effecting the evapn. the organic liquid by heating the impregnated tobac with the vapour of a substance having b.pt. higher t the organic liquid. Pref. the heating iscarried out water vapour. The technology of the process is sim Trubnikov, V.F., Krasivskii, G.A., Kasyanov, G. al. Bul. 32/30.8.78. 22.10.78. as 413659 (2pp70)

See Also

US 4157335 D23 US 4157351

Omitted from page 11

CGRR ★ D15 45991B/25 ★FR 2403-302
Irradiation of waste water with electrons from linear accelerator - with treatment monitored automatically pref. by microprocessor
CGR-MEV 16.09.77-FR-028072
K08 (18.05.79) B01j-01/10 C02c-05

In a plant for the purificn. of waste water and sludge by irradiation with accelerated charged particles. Incoming fluid is passed through an irradiation channel having a window transparent to the radiation employed.

Flow rate of fluid through the channel is non-automatically controlled. Also, the characteristics of the radiation beam are automatically monitored and controlled and, if irradiation of the fluid falls below the required standard, the fluid leaving the channel is recycled for further treatment. A microprocessor is pref. incorporated to co-ordinate the automatic controls.

The irradiation system pref. comprises two linear accelerators for electrons. The acclerators are powered by a high tension electric supply and receive hyperfrequency signals from a generator, pref. a kylstron. Controlled beams from the accelerators are directed through the channel windows pref. windows of Ti in a stainless steel channel. 16.9.77 as 028072 (16pp448)

RHON ★ D15 45992B/25 ★FR 2403-303
Treatment of effluent esp. soda lye from pulp prodn. - by adding decolourising additive, e.g. polyamide poly:amine, followed by ultrafiltration
RHONE-POULENC INDUSTRIES 19.09.77-FR-028671
A97 F09 (A14) (18.05.79) B01d-31 C02c-05/02 D21c-09/10

Effluents from pulp prodn. are treated by addition of a decolourising additive followed by ultrafiltration of the obtd mixture. The additive is pref. used in amts. of 1-200, esp. 20-120 ppm and pref. comprises a polymer contg. amine and/or ether and/or quat. ammonium grps.

The process avoids difficulties encountered in prior art (e.g. reverse osmosis which requires high hydraulic pressure; use of cellulose acetate membranes which require an anti-hydrolysis pretreatment and which tend to clog, etc.) and is efficient and economical. Used partic. for treating soda lye from the bleaching step of pulp. 19.9.77 as 028671 (10pp950)

SODE- ★ D15 45993B/25 ★FR 24
Packaged treatment plant for aerating and decanting waste uses air ejector to discharge purified effluent without dist settled sludge
SODETE 16.09.77-FR-028665 (23.09.76-FR-029182)
(18.05.79) C02c-05/10

Small-scale waste water treatment plant as describe the parent patent comprises a single vessel in which water is aerated, flocculated and decanted to produce purified effluent acceptable for disposal in local drai rivers. Purified effluent is piped to the vessel's out from a collecting channel of large area. The channel maintained, pref. by float supports, at a level below surface of the liq. but above the settled sludge.

Improvement is that gas under pressure, usually pressed air, can be injected into the pipe between the collecting channel and the vessel outlet in order to ej treated effluent from the outlet.

Rapid discharge of treated effluent without pumpin gas pressure within the vessel. These other two met tend to stir up the settled sludge which is carried out the treated effluent. 16.9.77 as 028665 Add. to 23.9. 029182 (10pp448)

Omitted from page 17

BRUE/ ★ D16 45973B/25 ★FR 240
Elastic, pref. polycarbonate, paddles on grape harvesting appt flick isolated grapes to collection appts.
BRUEL A 19.09.77-FR-028679
A88 P12 (18.05.79) A01d-46

Machinery for separating grapes from pieces of vine partially superimposed rotating discs of which at leas is fitted with a semi-rigid paddle flicked in response periodic engagement by projections on the disc surfac Specifically the paddle is a flat strip of 'Macrolon' (R polycarbonate).

The paddle radiates from the disc drive shaft and i deflected by projections following an annular path; th gree of deflection is limited by a slot in the paddle pr which becomes aligned with the projection loci as defl ion of the paddle shifts the slot locus radially inwards elastic recovery of the released paddle flicks grapes the adjacent disc surface to conveyors outboard of the discs. 19.9.77 as 028679 (14pp515)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL ; TOILET PREPARATIONS

D21 45689B/25 ★BE -872-762
c compsn. for reinforcing the nails - contg. tri:methylol-
ne, resin, plasticiser, acid and solvent
EAL SA 16.12.77-FR-037991
E13 (14.06.79) A61k

mpsn. contains in soln in water and/or alcohol (i)
hylolmelamine, (ii) $\geq$ 1 cosmetic non-cationic resin
at least one cosmetic cationic resin, (iii) at least
asticising agent and (iv) a mineral or organic acid.
compsn is applied to soft or easily broken nails.
ared with previous product the above effectively
ns the nail and is also satisfactory for the latter
ation of varnish, also it is non-irritant.
78 as 872762 (10pp597)

★ D21 45745B/25 ★DT 2753-448
drawn mould for accurately casting small articles - using heat-
sed foils mounted in holding rings and placed over model

RAK S 30.11.77-DT-753448
(A96) (13.06.79) B29c-17/03

-drawing tool for mfr. of small casting moulds used
odn. of dimensionally highly accurate mouldings
as dental crowns or bridges, and mountings for
)-precious stones, has a lever fastened centrally
the device, carrying a vertical cylinder in its midd-
pon which ring mounts for holding deep-drawable
re placed. In its starting position the cylinder bears
a 12-volt heater, with the foil(s) held in the mounts,
p of it.
en the heater is switched on the foils are softened
rapidly (within seconds). Opposite the heater, there
vacuum -generating station in which the model from
h the moulds are to be shaped (e.g. a model of a
stump) is located. By turning the lever about 180°
ylinder is passed to the vacuum station and the plas-
ed foil contacts the model.
acuum is then applied whereby the foil is deep-drawn
t the model. The lever is then pivoted back and the
-drawn prod. cooled by compressed air. The device
en ready for renewed operation. 30.11.77. as
48 (7pp267)

A ★ D21 45814B/25 ★DT 2754-796
hair conditioner and shampoo compsns. - contain water-soluble
osan salt esp. with organic acid as conditioner
VELLA AG 09.12.77-DT-754796
96 (A11) (13.06.79) A61k-07/06

ater-soluble chitosan salt, (I), pref. of HCOOH,
OH or lactic acid, is incorporated into aq. hair-condi-
er and -shampoo compsns., in addn. to standard hair
metic additives.
) may be used as a salt of a chitin deacetylation prod.
tg.70-90 wt.% chitosan. Acid quantity should be suff-
ent to neutralise the free amine gps. of the chitosan
d, e.g. 3.36 g 10% AcOH to solubilise 1 g chitosan
tg. 90% free amino gps. in water. Concn. of (I) in aq.
ns., emulsions or gels used may be 0.5-6 wt.%.
compsns. may also contain direct dyes for hair, esp.
5-2 wt.% aromatic nitro dyes, e.g. diamino-2-nitro-
zene; azo-anthraquinone and triphenylmethane dyes.
I) have hair-conditioning activity and can improve
mbing out properties, hand and gloss partic. of dama-
d hair. 9.12.77. as 754796 (12pp200)

OCH/ ★ D21 45948B/25 ★DT 2852-988
lid powder stick for cosmetics and toiletry use - contains
rticulate polyethylene, corn starch, silicone oil, zinc stearate or
her binder
MOCHIDA N 07.12.77-JA-146169
A61k-07/03

The stick contains, (A) as binder, particulate polyethylene (prefd), Zn stearate, corn starch, silicone oil, lanolin and/or kaolin, in addn. to (B) particulate talcum, kaolin, $CaCO_3$ $MgCO_3$, starch, Zn white, TiO_2, metal soaps, SiO_2, particulate resins, hydrocarbons, fats and oils, waxes, fatty acids, lower and higher alcohols, esters and/or phospholipids, and (C), surfactants, perfumes, pigments and/or preservatives, etc. The new powder sticks have vertical breaking strength under pressure 28 + 18 kp, horizontal breaking strength 24 + 18 kp; dust rate $<$10% and excellent adhesion and feel against skin.

The stick can be used for cosmetics and toiletries, e.g. as baby powder, and is easily, safely, cleanly and comfortably applied to skin. Adhesion to skin corresponds to 0.35-1 g powder applied to one side with 500 cm^2 of a polyethylene foam sheet, by hand, with light touching. 7.12.78. as 852988 (15pp200)

See page 31 FR 2403-076

FARB D21 27121A/15 =GB 1547-511
Crosslinking paste for organo-polysiloxane - contg. catalyst and thickened with active hydrophilic silicic acid (NL 3.4.78)
BAYER AG 30.09.76-DT-644193
*A26 +Q34 (A60 A96) (20.06.79) *DT2644-193 C08l-83/04 +C08j-03/24*

A pasty compsn. for crosslinking organopolysiloxanes to silicone rubber contains a catalyst for curing organopolysiloxanes at room temp., a crosslinking agent and a thickener. The thickener comprises hydrophilic silica having a surface area (BET) of 35-600 m^2/g, present in an amount of 3-40 wt.% w.r.t. the compsn.

The compsn. is partic. useful in the prepn. of dental impressions. 27.9.77 as 040150 (5pp910)

RIAL/ ★ D21 B/25 ★IT 1029-651
Dentifrice compsn.
RIALDI G 06.06.75-IT-012642
(20.03.79) A61k

SUNZ ★ D21 46509B/25 ★J5 4059-340
Dentifrice compsn. with good foaming characteristics - contains nonionic surfactant, long chain acyl aminoacid, zeolite, poly:carboxylic acids and aldonic acid
SUN-STAR HAMIGAKI K 19.10.77-JA-126172
A96 E16 (12.05.79) A61k-07/16

Compsn. (I) contains nonionic surfactant (II) and $\geq$ 1 of N-long chained acyl amino acid (III) or its salt, zeolite (IV) aliphatic polycarboxylic acid (V) or its salt, aliphatic oxy-polycarboxylic acid (VI) or its salt, aliphatic polyoxypolycarboxylic acid (VII) or its salt and aldonic acid (VIII) or its salt.

(II) is $\geq$ 1 of sucrose fatty acid ester, polyoxyethylene stearyl alcohol lether (the average mole (IX) of ethylene oxide added is 40), polyoxyethylene stearic acid ester ((IX) is 40), polyoxyethylene sorbitan monostearate ((IX is 20), deriv. of polyoxyethylene-hardened caster oil ((IX) is 60) and polyoxyethylene sucrose fatty acid ester ((IX) is 10-25).

The content of the additives in (I) is (II) or its salt other than sarcosine derivs.; $<$ 0.5 wt.%, (IV); 0.5-10 wt.%, (V) or its salt; 1-5 wt.%, (VI) or its salt; 1-5 wt.%, (VII) or its salt; 1-5 wt.%, and (VIII) or its salt; 1-5 wt.%. 19.10.77 as 126172 (10pp42)

NIEM- D21 40431Y/23 =J7 9012-908
(N)-acyl neutral amino acid ester oil-soluble surfactants - for cosmetic and other industrial uses
NIHON EMARUJON KK 11.09.73-JA-102504
*A97 E19 (26.05.79) *J50105-580 +A61k-07/02 B01f-17/38 C07c-103/50 C09g-01 C09k-03/16 C11d-01/74*

N-Long-chain acyl neutral amino acid esters (acyl is 6-22 C) are derived from alkyl alcohol, polyoxyalkylene alkyl
polyoxyalkylene polyalcohol

N-long-chain acyl glutamic acid OH gp. -contg. polyalc. fatty acid esters and polyoxyalkylene polyalc. fatty acid esters.

In an example, a hair cream contained liq. paraffin 15, petrolatum 5, N-lauryl-N-methyl-β-alanine 2-hexyldecyl ester 10.1, lanolin 3, polyoxyethylene stearyl ether 1.5, polyethylene glycol 0.4, N-long-chain acyl glutamic acid acid salts 0.1, glycerol 3 and H_2O 62% and preservative and perfume. 11.9.73 as 102504 C11d-1/74, A61k-7/02, B01f-17/38, C07c-103/50, C09g-1/00, C09k-3/16, C10m-3/26, D06m-13/40 (26.5.79) NIHON EMARUJON KK (7pp38) (J5 0105580)

DISI= ★ D21 46707B/25 ★SU -547-054
Pharmaceutical and agricultural blood sucking insect repellent - contg. di:methyl phthalate, synthetic pyrethroid, N,N-di:ethyl-m-toluamide and freon
DISINFECT STERIL RE 21.11.75-SU-192040
B05 C03 (30.12.78) A01n-09/20 A61k-07/40

The repellant with improved selectivity and insect (e.g. fleas) destruction activity comprises (in wt.%): N,N-diethyl-m-toluamide 17.55-23.40, dimethylphthalate 21.45-27.10, synthetic pyrethroid 0.15-0.55, remainder-freon 11/12. The pyrethroid contains neopinamine.

When applied to skin at a concn. of $10 g/m^2$, 98 ± 1% of fleas are destroyed, and insects which touch the treated skin, die 30-40 mins. after contact. The formulation is active on the skin for 5-7 days.

Dremova, V.P., Tsetlin, V.M., Smirnova, S.N. et al. Bul. 48/30.12.78. 21.11.75. as 192040 (2pp835)

SCHZ ★ D21 B/25 ★SW 7711-735
Oral hygiene compsn. contg. mutanase - to break down water-insoluble mutans in coatings on natural teeth and false teeth
SCHWEIZER FERMENT AG 18.10.77-SW-011735
(D16) (05.06.79) A61k-07/28

The oral hygiene compsn. may consist of a toothpaste, mouthwash, spray or gel, or a tablet or capsule that will stick to the appropriate part of the mouth, or chewing gum, or pastilles, or a cleaner for false teeth. It contains an enzyme that breaks down carbohydrate, optional further enzymes and conventional additives.

The enzyme is mutanase, which dissolves or breaks down water-insoluble mutan. Mutan is an extracellular glucan which contains more than 50% alpha-1,3-glucoside bonds. It occurs in coatings on natural and false teeth. 18.10.77 as 011735 (-pp1407)

CHEM D21 32890Y/19 =US 4157-330
Cyclic diesters prepn. of dodecanedioic acid - by polyester thermolysis using stannous salts of organic acids or stannic oxides as catalysts
CHEM WERKE HULS AG 22.10.75-DT-547267
*A35 E13 (A23) (05.06.79) *DT2547-267 C07d-321*

In the prodn.of cyclic esters of dodecanedioic acid and aliphatic diols of 2-12C and substd. by ≤2 1-4C alkyl gps. by thermolysis of a corresp. linear polyester under reduced pressure in the presence of a catalyst, the thermolysis is carried out at 200-300 (250-280)°C. and the catalyst used is a tin (II) salt of an aliphatic ≤18C monocarboxylic acid, an aromatic or araliphatic ≤36C monocarboxylic acid, or an aliphatic or aromatic ≤18C hydroxy-, poly-, ketocarboxylic or dicarboxylic acid.

The esters, prepd. in high yields, are free of toxic, difficult-to-remove lead cpds. and are thus useful in the cosmetic industry as fixatives. 6.1.78 as 867566 Div.ex. 4105672 (+19.10.76-US-734013) (5pp990)

COLG D21 39947V/22 =US 4157-378
Toothpaste compsn. - contg. calcium and phosphate-based product
COLGATE PALMOLIVE CO 25.07.73-GB-035471 (11.01.73-GB-001633)
*E33 (05.06.79) *BE-809-651 C01b-15/16 C01b-25/10*

Analytically pure fluorapatite is prepd.by reacting dicalcium phosphate dihydrate with hydrogen fluoride in aq. soln. at pH 5-8 at from room temp. for 7 days to 100°C. for 2 days.

Amt. of fluoride ion used is stoichiometric to 1.1 times stoichiometric amt. of dicalcium phosphate dihydrate such that solid analytically pure fluorapatite is formed. Pref.

---

pH used is 6.5.
Esp. used in dental prepns. yielding desirable
in the oral cavity, such as controlled polishing or
ity; prophylactic advantages such as remineralisa
duction of caries incidence or extent or reduction
ing from gums; and cosmetic advantages such as
white appearance of teeth. 2.6.77 as 802758 Div.
4048300; (+25.7.73-GB-035459; 9.1.74; 19.1.76-
431945; 653998) (12pp931)

GENM ★ D21 47080B/25 ★US
Dental plaque inhibiting compsn., esp. chewing gum - co
sulphate, bis (2-ethylhexyl) sulpho succinate, zinc cpd. and
GENERAL MILLS INC 28.11.77-US-855536
B05 E19 (E32) (05.06.79) A61k-07/16 A61k-09/68

A chewing gum contains 0.001-15 wt.% alkyl sulph
salt, 0.001-15 wt.% di(2-ethylhexyl) sulphosuccin
0.001-5 wt.% Zn cpd. (esp. Zn citrate), 0.05-10
of plaque inhibiting flavour which is cinnamon oil,
mint oil and/or spearmint oil, and 10-95 wt.% gu
The chewing gum pref. also contains xylitol, sorb
or mannitol as sweetener.
The compsn. reduces dental plaque or inhibits
mation. 28.11.77 as 855536 (7pp955)

ROCH/ ★ D21 47081B/25 ★US
Soft, chewable dentifrice lozenge - which forms sticky c
teeth when mixed with saliva, only removed by brushing
LA ROCHELLE P J 18.05.78-US-907167
(05.06.79) A61k-07/18

Soft, chewable lozenge contains: (a) 20-36 wt.% of
contg. non-cariogenic sweetener (I); (b) 30-60 wt.
cleaner-polisher (II) (amt.> amt. of (I)); (c) 5-10
starch adhesive (III); and (d) a viscosity builder an
ing agent (IV) to soften the (I)-(II) mixt., and to in
with (III) to thicken the compsn. and enhance adhes
the teeth. (I) may be xylitol, lycasin, or mixts. or
tol with xylitol or lycasin.
Non-cariogenic lozenges have long shelf storag
readily dispensed as an alternative to conventional
paste, and ensure that teeth (esp. interdental area
properly brushed. 18.5.78 as 907167 (6pp478)

PROC D21 31351B/16 =US
Abrasive compsn. esp. for dentifrice - in which particles a
with cationic water soluble polymer
PROCTER & GAMBLE CO 16.04.76-US-677592 (21.
471941)
*A96 P61 (05.06.79) *US4110-083 A61k-07/16*

Dentifrice compsn. comprises (A) 4-95% of a coat
tifrice abrasive comprising (a) a hard mineral (Mo
hardness ≥2) of particle size 1-30 µ; (b) as a coati
(a) 2-25 wt.% (w.r.t. (a)) of a cationic water solu
polymer having a charge density of ≥0.003 and mo
$500-10^6$; polymer being selected from (i) polyacryl
ammonium salts; (ii) polymethacryloxyalkyl ammo
salts; (iii) polyacryloamido alkyl ammonium salts;
polyalkenyl ammonium salts; (v) polyvinyloxy amm
salts; (vi) polyvinylbenzyl ammonium salts; (vii) po
diallyl ammonium salts; (viii) polyvinyl pyridinium
monium salts; (ix) polyvinylimidazolium salts; (x)
alkylation quaternaries; and (xi) polycondensation
naries; and (B) 0.01-5% of a cationic therapeutic a
Coated abrasive has improved compatibility with
ic agents so that less of the latter is adsorbed by th
rasive, more being available for teeth treatment.
as 920309 Div.ex. 4110083 (8pp963)

MIRA- ★ D21 47082B/25 ★US
Polycationic and polyquaternary ammonium ionene(s) -
conditioning agents for hair, fabric; as antistatic age
humectants for textiles; anti-dusting agents for powders etc.
MIRANOL CHEMICAL 23.06.77-US-809484
A96 F06 (A87) (05.06.79) A61k-07/06 D06m-15/12

Hair or fabric conditioning compsns. contain a qua
cpd. of formula (I) or (II) together with a conventio
carrier, and fatty anionic surfactants (III):

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Our Ref: Advice Note No. 31

Telephone: 01-242 5823/6
Cables: DERWENTINF LONDON
Telex: 267487

8th August 1979

CENTRAL PATENTS INDEX

Material Despatched in Consignment of 8th August 1979

ERTING BULLETINS - COUNTRY ORDER

143B - 48977B B26

AMINED JAPANESE APPLICATIONS

e advanced version of the alerting stracts which will appear as the rrent version in Week B31 Alerting lletin (Country Order) are included this week's consignment.

ERTING BULLETINS - CLASSIFIED

5674B - 47142B B25

EEKLY ALERTING BULLETIN INDEX BOOKLET

7143B - 48977B B26

ASIC ABSTRACTS JOURNALS

4025B - 45673B B24

ROFILE BOOKLETS

2400B - 44024B B23

ROFILE MANUAL CODE CARDS

rofile 2A
ection A
2 143156 - 143161 B21
10 143270 - 143281 B21

Profile 21A
Section H
NIL

Section J
20456 B21

Section N
03004 - 03030 B19

9: CS MICROFILM

A	Reel	49	37627 - 38959	B21
A	Reel	50	39041 - 39381	B21
A	Reel	51	39390 - 40507	B21
B	Reel	21	33719 - 35284	B19
B	Reel	22	35320 - 37148	B20
C	Reel	13	37081 - 40554	B21
D	Reel	17	35651 - 37610	B20
E	Reel	31	38830 - 39418	B21
F	Reel	17	36465 - 38963	B20
G	Reel	12	33863 - 37224	B20
G	Reel	13	37225 - 39383	B21
H	Reel	11	37150 - 40606	B21
J	Reel	15	33331 - 35427	B19
J	Reel	16	35433 - 37563	B20
K	Reel	4	29013 - 35176	B18
L	Reel	12	31332 - 33320	B17
L	Reel	13	33321 - 37025	B19

10: COMPLETE SPECIFICATION BOOKS

B	No. 1133	44025B - 44295B	B24
B	No. 1134	44296B - 44375B	B24

Directors: M. Hyams (Chair. & Man.) V. S. Hyams B. G. Paver A. B. Comfort P. T. Smith Executive Directors: A. M. Brooks M. J. Whiffin H. Birnbaum M. D. Dixon H. Winning I. S. Smith P. Norton S. J. Newey C. J. Page K. M. Walker M. E. Pope R. H. Hope T. M. Harvey

ine gas is treated continuously. 20.10.77 as 125159

0: COMPLETE SPEC. BOOKS contd.

B No. 1135 44376B - 45673B	B24
C No. 695 44025B - 44336B	B24
C No. 696 44337B - 45673B	B24

3: COMPANY CODE CARDS

42400B - 44024B	B23

4a: OVERALL BASIC PRIORITY INDEX

1979 A - M	B01-B13

7: MANUAL CODE CARDS

A 143151 - 143426	B21
B 42400B - 44024B	B23
C 42400B - 44024B	B23
D 23850 - 23886	B21
E 62128 - 62271	B21
F 31779 - 31829	B21
G 21233 - 21286	B21
H 14422 - 14453	B21
J 20418 - 20467	B21
K 06467 - 06476	B21
*L 28301 - 28382	B21
*M 34755 - 34858	B21

* Indicates replacement cards: Section L 26625, 26626, 26797, Section M 33916.

19: PUNCH CODE CARDS

B 37140B - 38960B (452 cards)	B20
C 37147B - 38963B (292 cards)	B20
E 29731B - 31533B	B16

The following delayed cards are included in this week's consignment:

Section B
19029B, 19030B

Section C
NIL

Section E
65382A, 65383A, 87250A(2)

23: WEEKLY SDI TAPE

45674B - 47142B	B25
F3296B - F5275B	B25

NOTE: SDI Tape for Week B24 was despatche with last week's material.

25: RIN SERVICE

Screen Cards

B Nos. 001 - 048	B17
C Nos. 001 - 030	B17
*E Nos. 001 - 052	B16

*Rin Service Screen Card E 001 is a reiss of card 043 of Week U12, card 002 is a reissue of card 067 of Week B08 and card 003 is a reissue of cars 063 of Week B11

Weekly Indexes

B, C, E and Overall	B14&B15

Sheets and Cards

51466 - 51507	B15

CS MICROFILM BY COUNTRY

EPO	EP14	OPI	27.6.79
FR NEW LAW	2139-2142	OPI	25.5.79
DT DAS	584-585	OPI	12.7.79
DT OLS	3655-3660	OPI	19.7.79
DT PS	482-483	OPI	12.7.79
NL	993-996	OPI	9.7.79
CH	315-316	OPI	29.6.79
GB OLD LAW	1124-1125	OPI	25.7.79
GB NEW LAW	GB37/38	OPI	18.7.79
PCT	WO12	OPI	14.6.79

DELAYED REELS

FR NEW LAW	2097-2098	OPI	9.3.79
FR NEW LAW	2117-2118	OPI	13.4.79
CA	1684-1685	OPI	15.5.79

Amt. of fluoride ion used [illegible]
ichiometric amt. of dicalcium phosphate dihydrate such
: solid analytically pure fluorapatite is formed. Pref.

carrier, and fatty anionic surfactants (III).

WORLD PATENTS ABSTRACTS PUBLICATIONS
DESPATCHED THIS WEEK

Belgian Patents Abstracts	B27
British Patents Abstracts	B26
French Patents Abstracts	B26
German Patents Abstracts	B26
German Patents Gazette	B26
Japanese Patents Report	No. 27 Despatched 6.8.79
Japanese Patents Gazette	B26
Netherlands Patents Report	B26
Soviet Inventions Illustrated	B26
U.S. Patents Report	B26
WPA Journals	B26
European Patents Report	NONE
PCT Patents Report	NONE

WORLD PATENTS INDEX

Gazettes Section P, Q, R and Ch	B27
Priority Index	B27

WPA BASIC ABSTRACTS MICROFILM

Section P Reel 2	B1012B - C2109B	B06/B10
Section Q Reel 3	B8004B - C6799B	B09/B12
Section R Reel 3	B7998B - C6795B	B09/B12

alkylaryl sulphonate and/or alkylsulphonate.

The gas is treated continuously. 20.10.77 as 125
(3pp46)

Amt. of fluoride ion used is [illegible]
chiometric amt. of dicalcium phosphate dihydrate such
solid analytically pure fluorapatite is formed. Pref.

carrier, and fatty anionic surfactants (III).

DERWENT PUBLICATIONS LTD. Rochdale House 128 Theobalds Road London WC1X 8RP England

Central Patents Index
NEWSLETTER

8th August, 1979

1979 No.14

*1. 1979 INSTRUCTION CLASSES

Following a careful analysis of questionnaires returned by subscribers requesting centralised instruction classes, the following schedule has now been finalised. It had been hoped to accommodate requests for a larger number of centres, notably in the United States mid-west and in continental Europe, but the disappointingly low numbers expected to attend in contrast to London and Washington did not make these alternatives economically viable.

LONDON -

Royal National Hotel, Bedford Way, W.C.1.
(For reservations tel. 01-278-7871, Telex 263951 (Imperial Hotel Gp. Central Reservations)).

Monday Sept. 10th	IC2	Introductory Coding & Retrieval Section A
Tuesday Sept. 11th)	IC4	Coding & Retrieval Section A
Wednesday Sept. 12th)		
Thursday Sept. 13th	IC8	Online Instruction Polymers
Monday Sept. 17th)	IC7	Advanced Coding & Retrieval Sections BCE
Tuesday Sept. 18th)		
Wednesday Sept. 19th)	IC6	Advanced Coding & Retrieval Section A
Thursday Sept. 20th)		
Friday Sept. 21st	IC1	General Instruction
Monday Sept. 24th	IC10	Online Instruction (Except Sections ABCE)
Tuesday Sept. 25th	IC9	Online Instruction Sections BCE
Wednesday Sept. 26th	IC3	Introductory Coding Sections BCE
Thursday Sept. 27th)	IC5	Coding & Retrieval Sections BCE
Friday Sept. 28th)		

WASHINGTON D.C.

Holiday Inn National Airport, 1489 Jefferson Davis, Arlington, VA 22202
Tel. (703) 920-0772. Contact Doris Blackmon.

Monday Oct. 22nd	IC3	Introductory Coding Sections BCE
Tuesday Oct. 23rd)	IC5	Coding & Retrieval Sections BCE
Wednesday Oct. 24th)		
Thursday Oct. 25th	IC9	Online Instruction Sections BCE
Friday Oct. 26th	IC10	Online Instruction (Except Sections ABCE)

alkylaryl sulphonate and/or alkylsulphonate.

The gas is treated continuously. 20.10.77 as 1251
(3pp46)

Olde Colony Motor Lodge, North Washington and First Streets, Alexandria, VA 22313 Tel. (703) 548 6300. Contact Areli Ann Woody

Monday Oct. 29th	IC2	Introductory Coding Section A
Tuesday Oct. 30th Wednesday Oct. 31st	IC4	Coding & Retrieval Section A
Thursday Nov. 1st	IC8	Online Instruction Section A
Friday Nov. 2nd	IC1	General Instruction

Sheraton National Motor Hotel, Columbia Pike and Washington Blvd., Arlington VA 22204 Tel. (703) 521 1900. Contact Jan Ross

Monday Nov. 12th Tuesday Nov. 13th	IC7	Advanced Coding & Retrieval Sections BCE
Thursday Nov. 15th Friday Nov. 16th	IC6	Advanced Coding & Retrieval Section A

Costs for centralised classes will be £20 ($50) per person per day (luncheon not included) except for online classes where the costs are £30 ($75) per attendee per day. Classes will commence at 9.00 a.m. on each day.

All subscribers who returned questionnaires requesting such centralized classes have been contacted by letter confirming details. Those wishing to attend should make their own arrangements for accommodation and are advised to do so well in advance.

A series of individual classes at subscribers' own offices has also been arranged (cost £100 or $250 per one day visit) and those who requested this option are currently being advised of the details by letter.

Any subscribers who have not previously returned their Instruction Class Questionnaire, but now wish to attend should contact the Subscription Department immediately, preferably by telex and any correspondence should be sent by First Class Post (Airmail outside Europe).

*2. DELAYS TO CANADIAN PATENTS

Due to despatch delays from Canada, caused by a strike of the shipping agents, no Canadian patents have been included in Weeks B30 and B31. The dispute has now been settled and the missing patents will be caught up in Weeks B32 and B33.

*3. NEW CHEMICAL CODE

A very successful meeting of the chemical coding sub-committee was held on 26th and 27th July, with agreement being reached on virtually all outstanding items.

The sub-committee consisted of Derwent staff, Mr. J.D. Munro (ICI), Dr. O. Schier (Ciba-Geigy), Mr. P. Steele (Glaxo), Dr. C. Suhr (BASF). Suggestions from other subscribers were included in the discussions.

A full report of this meeting will be sent, by the end of August, to all members of Subscriber Committee No. 5 (chemical coding), for their comments.

4. INSTRUCTION MANUAL NO. 3 MANUAL CODE MANUAL

The new April 1979 version of this manual was sent to all eligible subscribers with the week B22 consignment of material. Further copies are available to these subscribers on request at a cost of £2 ($4) each. Orders should be placed with our Patents Supply Division.

Amt. of fluoride ion used is
ichiometric amt. of dicalcium phosphate dihydrate such
t solid analytically pure fluorapatite is formed. Pref.

carrier, and fatty anionic surfactants (III):

5. WPI GAZETTES - NEW INDEX FORMATS

As announced in Item No. 3 of Newsletter No. 12 (11th July, 1979), the formats of Indexes I, III and VI were altered with effect from week B24. Details of these changes were given in the Subscriber Meeting Agenda booklets, and the green descriptor page preceding each index in the WPI Gazettes will also show the revised formats.

In order to improve scanning still further, from week B26, in Indexes I (Patentee) and III (IPC), the first part of the title will additionally be printed in bold.

6. SDC SAVESEARCH/STORESEARCH

SDC have now corrected the bug in their Savesearch/Storesearch program and multipunch searching under several subheadings may now be effected as described in CPI Newsletter No. 9 Item 10. The method described in CPI Newsletters 11 and 12 can of course still be used, if preferred.

*7. SDC ONLINE FILE POSITION

WPI	SDC has updated to	Update code	Despatched to SDC
Bibliographies	B22	7905	B26
Manual Codes	B16	7904	B24
Multipunch A + Key Terms	B05	7901	B10
Multipunch BCE	B07	7902	B13

*8. SDC EUROPEAN COORDINATOR

Ms. Edith Crockett will be based in Paris. Her address is SDC Search Service, Suite 301 BIS, 28 Blvd. De Grenelle, Paris 75015. We will announce her telephone number as soon as the phone is installed.

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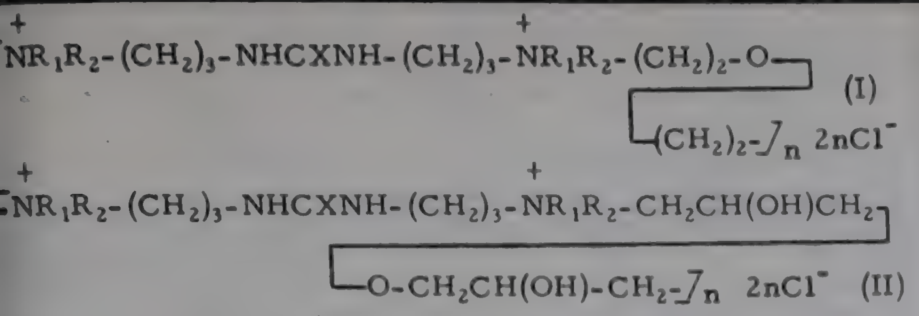
alkylaryl sulphonate and/or alkylsulphonate.

The gas is treated continuously. 20.10.77 as 1251
(3pp46)



$$\overset{+}{N}R_1R_2-(CH_2)_3-NHCXNH-(CH_2)_3-\overset{+}{N}R_1R_2-(CH_2)_2-O-(CH_2)_2-]_n\ 2nCl^- \quad (I)$$

$$\overset{+}{N}R_1R_2-(CH_2)_3-NHCXNH-(CH_2)_3-\overset{+}{N}R_1R_2-CH_2CH(OH)CH_2-O-CH_2CH(OH)-CH_2-]_n\ 2nCl^- \quad (II)$$

here X = S or O; n ≮ 1; R_1R_2 = Me, Et, i-Pr, OCH_2CH_2, or $CH_2CH_2(OCH_2CH_2)_xOH$; x = 0-6).

(I) and (II) are excellent conditioning agents and skin moisturising agents for use in shampoos, cream rinses or skin creams, etc. The cpds. are also antistats and humectants for fibrous textile prods., anti-dusting agents for powders, wash cycle conditioners and rewetting agents in laundry detergent formulations, and agents for binding anionic dyes to fibrous substances. 23.6.77 (- pp478)

See Also

D13 US 4157404 D16 DT 2852779 D22 SU 621351
D25 DS 2819940

D22 : BANDAGES ; DRESSINGS

HVA/ D22 41264R/23 =DS 1811-290
ollagen membranes contng a therapeutic compd
CHVAPIL M (CHV /) 27.11.68-DT-811290
*(13.06.79) *DT1811-290 C08h-01/06 + C08l-89/06*

Felt-like membranes or sponge-like pads of collagen fibres are prepd. easily and cheaply. Collagen-rich animal tissue such as skin and tendons is degraded by acid and/or alkali and mechanically pulverised. The resulting compsn. is mixed with water and foamed with air and/or an inert gas to obtain a homogenous, foamy slurry contg. 0.3-3.0 wt.% (based on dry wt.) collagen.

The pH of the slurry is adjusted to 3-5.5 and tannic acid or a crosslinking agent and opt. plasticisers, therapeutic or diagnostic agents added. The foamed slurry is frozen to -2 to -40 °C and maintained 1-30 days at this temp. under normal pressure. The compsn. is then brought to 10-30 °C, the major amt. of water present pressed out mechanically and the structure dried at room temp. The collagen pads may be used as tampons and bandages. 27.11.68 as 811290 (9pp068)

NIDS D22 35367U/25 =DS 2258-940
Microwave sterilizer plant - for liquid filled ampoules
NIHON DENSHI KK (TANA) 21.02.72-JA-018261 (01.12.71-JA-097434)
*B07 P33 P34 + R59 (13.06.79) *NL7216-260 A61l-01*

The fluid contained in ampoules is sterilised whilst uniform heating of the ampoule and its contents are ensured, so that the ampoule itself cannot be destroyed nor its contents damaged.

The ampoule is held by its neck section and rotated on its longitudinal axis whilst being subjected to microwave radiation, the ampoules being held at an inclination ensuring that no liq. enters the neck. 1.12.72 as 258940(11pp)

PAPI- D22 09285X/06 =DS 2539-570
Mechanical pulps for producing water-absorbent paper - contg. a non-borate buffer to improve hydrophilic props
PAPIRIND FORSKNING 12.09.74-NO-003286
*F09 (13.06.79) *BE-833-343 D21h-03/70*

An easily handled wood pulp with high absorptive powers contains at least 0.2 wt.% of a buffer not contg. borate which gives a pH of 6-10(7-9) e.g. an alkali or ammonium salt of phosphoric, carbonic, citric and/or tartaric acids.

The wood pulp may be used for bandages, tampons, towels, etc. 5.9.75 as 539570(3pp068)

OVTS/ D22 29594Y/17 #DS 2550-828
Bactericidal (1,3)-dichloro-(5,5)-dimethyl hydantoin compsn. - useful for washing and disinfecting various surfaces
OVTSCHINNIKOV V G (OVCH/) 11.11.75-GB-046617 (12.11.75-DT-550828)
*E13 P34 (13.06.79) *GB1472-049 A61l-13 C11d-03/48*

Bactericide contains 19-25 wt.% 1,3-dichloro-5,5-dimethylhydantoin, 10-19 wt.% 5,5-dimethylhydantoin, 7-15 wt.% neutral sodium salt of phosphoric acid, 59-40 wt.% sodium chloride and/or anhydrous sodium sulphate and 5-1 wt.% alkylarylsulphonate and/or alkylsulphonate.

The bactericide may be used for washing and disinfecting various surfaces. 12.11.75 as 550828(10pp068)

COLG D22 90087Y/51 =GB 1547-524
Disposable sanitary towel or diaper - with two absorbent pads having different degrees of compaction
COLGATE PALMOLIVE CO 09.08.76-US-712448
*F07 P21 P32 (20.06.79) *BE-857-609 A41b-13/02*

A disposable absorbent article, e.g. a diaper, comprises a fluid-impervious backing sheet, a pervious cover, a top absorbent pad of a loosely formed fibrous mass, and a lower absorbent pad of a fibre mass with interconnected compressed regions extending through a substantial part of the pad, in which the average interfibre spacings are less than those in uncompressed areas and the top pad.

The pad outer surfaces are pref. covered by wadding sheets, the lower being compressed in regions corresponding to the second pad regions. The second pad is pref. 37 ± 9 mils thick measured under slight compression, and the regions extend to the sides and ends. 26. 7. 77 as 031333/77 (4pp1358)

KUWA/ ★ D22 46111B/25 ★J5 4056-980
Deodorising appts. for gases from drying waste, fertiliser or fodder - comprises a sealed casing, with inlet and outlet ports, contg. agitator compartments for washing, and others for deodorising the gases
KUWABARA H 15.10.77-JA-123006
J01 Q78 (D14 D15) (08.05.79) B01d-53/14 F28b-03/08

The appts. comprises a sealed casing with an inlet port for exhaust gas in the top wall near one end and an outlet port for the treated gas near the opposite end. A number of spaced, vertically extending partition walls divide the interior space of the casing into isolated compartments, each having water spray nozzles. An agitator shaft extends through the partition walls, from end to end of the housing, with agitating blades rotating within the individual compartments.

The gas pref. passes vertically downwards in alternate compartments to be agitated and mixed with the water spray, and vertically upwards in the remaining compartments to be washed and cleared of the smelly components. 15. 10. 77 as 123006 (3pp47)

TOKE ★ D22 46346B/25 ★J5 4058-681
Appts. for deodorising malodorous gas - contains continuously regenerated absorbent e.g. activated carbon
TOKYO SHIBAURA ELEC LTD 20.10.77-JA-125159
J01 (11.05.79) B01d-53/06

Appts. comprises a cylindrical housing having an absorbing chamber having malodorous inlet and a treated pure gas outlet and a desorbing chamber having an outlet for desorbed gas, a rotary casing filled with absorbent activated carbon and being revolved through the chambers about a centre of the cylindrical housing, and nozzles for feeding ozone gas and washing water opened into the desorbing chamber.

The gas is treated continuously. 20. 10. 77 as 125159 (3pp46)

GORG/ ★ D22 46665B/25 ★SU-237-340
Bactericidal and bio-stimulating medicinal aq. compsn. - contg. sodium chloride, cod liver oil oxidn. prods. and water, used for treating infected wounds etc.
GORGIEV T B 11.03.68-SU-223760
B05 (20.01.79) A61k-35/60

Both bactericidal activity and biostimulation are increased and unpleasant smell is removed, by using the components in the following ratio (wt.%): cod liver oil oxidn. prods. 4-6, NaCl 0.5-0.9, remainder - water.

It is used for treating wounds. It stimulates the growth of granular tissue and regeneration of epitherial tissue.

The liquid is pale yellow, transparent and of slight odour. It contains a little sediment at pH3, but can be neutralised. The liquid is bactericidal to many species, S. albus, S. aureus, dysenteric bacteria, cholera, bruella, all of which are destroyed after 5 min. to 3-4 hrs. It stimulates growth, granulation and regeneration of epithelium.

Gorgiev, T.B. Bul. 2/15.1.79. 11.3.68. as 23760 (2pp 835)

TEXT= ★ D22 46944B/25 ★SU-621-348
Human blood vessel replacement - has nap on both sides made as single, knitted tube contg. biologically inert fibres
TEXTILE-HABERDASHER 14.10.76-SU-411517
F04 P32 (02.08.78) A61f-01/24 D04b-01/22

The fibre knitted blood vessel has nap on both sides and is made as a single tube knitted from biologically inert threads.

To reduce blood flow turbulence and therefore thrombosis and improve the functional properties, the nap elements on the inner side are the covering loop rods which are orientated in the blood flow direction. On the support outer side the same covering thread forms additional nap elements w.r.t. the ground thread.

The additional nap elements are made as needle arches. The needle arches alternate with the nap elements made as plate arches.

Pochivalova, L.N., Filatov, V.N., Dzhermakyan, Yu.T. et al. Bul. 32/30.8.78. 14.10.76. as 411517 (3pp110)

NIKI= ★ D22 46945B/25 ★SU-621-351
Plumbagin antimicrobial additive for food and cosmetics - extracted with organic solvent e.g. petroleum ether from Plumbagella spach plant tissue pretreated with salt soln. to increase yield
NIKITSK BOTANICAL 05.03.77-SU-459767
E14 (D13 D21) (17.07.78) A61k-35/78

Plumbagin (methyljuglone) is extracted from Plumbagella spach plant tissue with petroleum ether and chemically purified.

A better yield is obtd. if before extrn., the ground roots, stalks and leaves are treated with 25-30% wt.%. of a neutral or acid hydrophilic salt, e.g., NaCl. The extract is treated with aq. alkali soln. acidified and treated with ether, followed by recrystallisation from ethanol to obtain a pure final prod.

Shcherbanovskii, L.R., Kochkin, M.A., Luks, Yu.A. et al. Bul. 32/30.8.78. 5.3.77. as 459767 (2pp835)

KUME= ★ D22 46946B/25 ★SU-621-353
Surgical materials and instruments treatment appts. - has electrodes fitted in bath with antibiotic soln.
KAUN MEDICAL INST 28.03.77-SU-461501
B07 P34 (02.08.78) A61n-01/20

The unit can be used for antibiotic and other medicament impregnation of surgical materials and instruments under ultrasonic and electrophoresis effect. The unit contains bath with electrodes and ultrasonic radiator.

To ensure even impregnation, the electrodes are fitted in the bath. One of the electrodes is situated at the bath base and the other one is split and its sections are situated at the bath opposite sides. The ultrasonic radiat can be displaced w.r.t. the object under treatment. T bath is filled with physiological soln. of antibiotics of required concn.

Smailis, A.I., Veselyunas, I.I., Vaichuvenas, V.A. al. Bul. 32/30.8.78. 28.3.77. as 461501 (2pp110)

COLL/ ★ D22 46988B/25 ★US 4156
Sintered metal porous prosthetic device - having high compres strength and contg. interstitial interconnecting pores
COLLIER J P 24.08.77-US-827236
M22 P32 (05.06.79) A61f-01/24

A porous metallic prosthetic device is made by heating moulded metal powder in a non-oxidising environment within 25°C. of its m.pt. for a few mins. to about 1 hr to fuse the powder particles with each other at their po of contact, producing a distribution of connected interst pores of mean pore size 100-500 µ. The prod. has a por sity of 10-40% and a compressive strength of ≥20000 p

The method can be used to make metal screws, plat pins, nails and esp. articulating joints such as ball join for hip replacements. The prod. has the required stren as well as the porosity required for adhesion of plastic cements. Plastic cements enter the pores to distribute loads over a larger portion of the device than previousl possible and permits the device to carry loads in shear or tension. 24.8.77 as 827236 (8pp935)

DOWO ★ D22 46997B/25 ★US 4157-
Surgically implantable tissue expanding device - compris semipermeable envelope containing soln. of high osmotic pressu
DOW CORNING CORP 24.03.78-US-889787
A96 P31 P32 (05.06.79) A61b-19 A61f-01

A surgically implantable device for expanding skin tissu and mucous membrane consists of a partially collapsed velope of semipermeable membrane, permeable to body fluids, contg. a material having sufficient osmotic pressure to draw fluid into the envelope. The device expands after implantation, causing an increase in skin area ove

The device is constructed of a polymer, e.g. cellulos acetate, polyurethane, polyamide, PVA, polyethylene, PVC, natural rubber etc.; esp. silicone rubber. It is filled with a soln. contg. e.g. $MgCl_2$, Na acetate, $(NH_4)_2$SC sucrose, glycerine, PVP, Ca lactate, CMC, urea, proteins, dextrins, etc.; esp. NaCl.

The device is used to generate new skin for grafting, cosmetic surgery, to make room for mammary prosthes etc. It does not require a connecting tube to the exterior of the body, or periodic injection of filling medium. The tissue generated has an adequate vascular supply. 24.3. as 889787 (6pp955)

ETHI D22 04377B/03 =US 4157-4
Crystalline lactide-glycolide copolymer - esp. as absorbable sutu filament, by two/stage copolymerisation
ETHICON INC 24.06.77-US-809737 (12.06.78-US-914692)
*A23 F01 P34 +P32 (A96) (05.06.79) *DT2827-289 C08g-63/08*

Prepn. of a crystalline copolymer of lactide and 50-75 wt.% glycolide comprises (a) preparing a random copolymer consisting of a major amt. of an optically active lactide and a minor amt. of glycolide or d,l-lactide, (b) mixing, with the copolymer, 70-90 wt.% glycolide and 10-30 wt.% of an optically active lactide, the amt. of glycolide being sufficient to provide 50-75 wt.% glycolide in the mixt. and (c) polymerising the mixt.

The obtd. copolymer has an inherent viscosity (0.1% soln. in hexafluoroisopropanol, 25°C.) of >1.2, a m.pt. ≥160 C., and a crystallinity ≥15%. The copolymer is fibre-forming and useful in the prepn. of absorbable surg cal sponges. 12.6.78 as 914692 (6pp992)

See Also

D13 J5 4059337 D13 J5 4060169

D23: OILS; FATS; WAXES

IS ★ D23 45685B/25 ★BE -872-723

thyl-heptenone prepn. for use as terpene intermediate - by ring ening of 2,6,6-tri:methyl-5,6-di:hydro 4h-pyran with water and logen catalyst

ANIC SPA 03.01.78-IT-019008

B05 E17 (13.06.79) C07b C07c

ocess for ring opening (decyclisation) of 2, 6, 6-trimethyl , 5-dihydro-4H-pyran (I) by heating with a catalyst, mprising a halogen or halogen releasing cpd, in the esence of water. Pref. (I) is heated at 50-130° C, with 2-2 moles of water per mole of (I) using 0.01-1wt% of talyst w.r.t. (I)

The prods are intermediates, useful for the synthesis terpene derivs (such as binalol, citral, ionones, vita- in A) used in food, perfumery and pharmaceuticals. - and α-methyl heptenone and methyl heptanolone are btd. Known process for prep. of (II)/(III) by reaction of sobutene and methylvinylketone(or acetone and formaldehy de) inodoes heating at 200-300° C under pressure to give I) and decyclisation by heating at 290-300° C under 80-90 ars pressure with 0.1-3 wt% water (DT1259876). The use of the halogen or halogen releasing catalyst allows gentle conditions to be used for the decylcisation. 13. 12. 78 as 872723 (8pp395)

UNIL ★ D23 45715B/25 ★BE -872-854

Selective hydrogenation of polyunsaturated cpds, esp. oils - using Gp/VIII metal catalyst treated with specified basic cpd.

UNILEVER NV 19.12.77-GB-052750

E17 (18.06.79) B01j C07b

The selective hydrogenation is effected in the presence of a Group (VIII) metal catalyst, which may contain another metal as promoter. The catalyst is treated with a basis cpd. of formula AX in which A is $R_1R_2R_3R_4N^+$ where R_1-R_4 are apt. substd. alkyl, cycloalkyl, aralkyl or aryl or a Group I or II element or NH_4^+, X is OH, anion of a weak acid or an anion RO^- where R is alkyl.

Process is esp. used for natural oils. The treatment of the catalyst results in almost no satd. cpds being formed and also relatively little trans isomers. 18. 12. 78 as 872854 (33pp597)

ANIS D23 09409Y/06 =DS 2635-545

Dimethyl octenyl nitrile and dimethyl hydroxy octyl nitrile - prepd. from (3,7)-dimethyl-(3)-hydroxy (6)octenyl nitrile

ANIC SPA 08.08.75-IT-026221

*E16 (13.06.79) *BE-844-977 A61k-07/46 C07c-121/30*

The new cpd 3,7-dimethyl-3-hydroxy-octane nitrile may be The new cpd 3,7-dimethyl-3-hydroxy-6-octene prepd. by hydrogenating 3,7-dimethyl-3-hydroxy-6-octene 635545(2pp068) nitrile and is useful as a perfume.6.8.76 as

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RIKA ★ D23 46457B/25 ★J5 4059-213

Oxidative prodn. of ester cpds. - from alcohol and aldehyde via alkoxy-tin alkoxylate intermediate

RIKAGAKU RES LABS KK 00.00.78-JA-108329 (24.10.75-JA-128023)

B05 E19 (12.05.79) C07c-67 C07c-69/76

A process for oxidatively producing ester cpds. compris- es (1) reacting satd. aliphatic prim. or sec. alcohol of formula R_1-CHOH (I) or R_2-OH (II) with an equimolar or slightly excess amt. of bis (tri-n-lower alkyltin)oxide in an aprotic solvent at a temp. of 0-100 °C to give the corresp. alkoxytin alkoxylates; and (2) reacting the latter with an equimolar or slight molar excess aldehydes of for- mula R'CHO (II) in a non-polar solvent in the presence of an equimolar or slight molar excess of haloamide- or haloimide-type oxidising agent at a temp. of -50 to 100 °C to give esters of formula R_1CHOC(O)-R' (IV) or R_2OC(O)- R' (V). In the formula R_1 is satd. aliphatic alkyl; R is ali- cyclic alkyl or R_3R_4C (in which R_3, R_4 are aliphatic alkyl); and (R' is not defined).

(IV) and (V)are used in perfume, detergent and drug mfr. The aldehydes may be aliphatic ones, e.g. HCHO, MeCHO, EtCHO, PrCHO, BuCHO, hexanal, dodecanal; PhCHO; alicyclic, e.g. cyclohexylaldehyde;

108324/78 Div. ex. 128023/75 (3pp52)

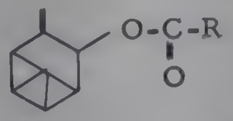
TAIY- ★ D23 46474B/25 ★J5 4059-253

Cyclic terpene ester cpds. prepn. - by isomerising cyclic terpene allyl:ester cpds. in organic solvent using copper cpd. catalyst

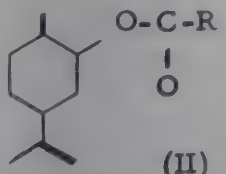
TAIYO KORYO KK 17.10.77-JA-123551

E15 (12.05.79) B01j-23/72 B01j-27 B01j-31/04 C07c-69/02

The method comprises heating cyclic terpeneallylesters, having exo double bonds, in an organic solvent and a copper cpd. catalyst to isomerise them. Pref. starting cpd. is pinocarveyl ester (I) or isocarveyl ester (II).



(I)



(II)

(where R is 1-4C alkyl).

The prods. are useful as (intermediates for) perfume cpds. and can be easily prepd. Cpds. (I) and (II) give myrtenylesters and perillylesters respectively.

Pref. catalyst is cuprous oxide, cupric oxide, copper chloride, copper acetate, copper sulphate or cupric propionate in an amt. of 1-20, pref. 5-10 w/w% of starting cpd.; the solvent is 1-5C organic acid, formic acid, acetic acid, propionic acid, butyric acid or valeric acid; and the isomerisation at 100-200, pref. 120-170 °C. 17.10.77 as 123551 (4pp5)

TAIY- ★ D23 46475B/25 ★J5 4059-254

Cyclic terpene ester(s) prepn. for use as perfumes - by heating cyclic terpene-allyl alcohol(s) contg. exo double bond in organic acid, using copper cpd. as catalyst

TAIYO KORYO KK 17.10.77-JA-123552

E15 (12.05.79) B01j-23/72 B01j-27 B01j-31/04 C07c-69/02

Method comprises heating cyclic terpeneallyl alcohols having exo double bond in organic acid in the presence of a Cu cpd. catalyst toeffect esterification and isomerisation simultaneously. As the starting cyclic terpene-allyl alcohol pinocarveol and isocarveol can be used.

The cyclic terpene esters obtd. are useful as perfumes or intermediates for perfumes. From pinocarveol and isocarveol, myrtenyl esters and perillyl esters can be obtd. respectively.

As the Cu cpd. catalyst cuprous oxide, cupric oxide, copper acetate, copper chloride, copper sulphate or cupric propionate can be used, pref. in an amt. of 1-20 (esp. 5-10) wt. % based on starting cyclic terpene-allyl alcohols. As the organic acid solvent, formic, acetic, propionic, butyric or valeric acid can be used and the kind of ester obtd. is determined by the kind of organic acid used. Specifically, the reaction is effected at 100-200 (esp. 120-170) °C in organic acid solvent. 17. 10. 77 as 123552 (3pp5)

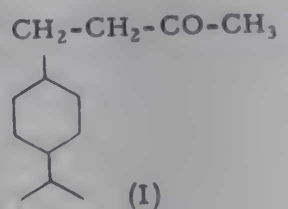
TAIY- ★ D23 46477B/25 ★J5 4059-257

4-(4′-Isopropyl-1′-cyclohexyl)-2-butanone prodn. - by selectively hydrogenating 4-(4′-isopropenyl-1′ cyclohexenyl)-2-butanone, useful as perfume

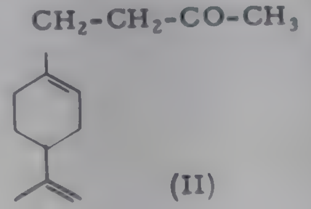
TAIYO KORYO KK 17.10.77-JA-123553

E15 (12.05.79) B01j-23/44 B01j-25 C07c-49/43

Prepn. of 4(4'-isopropyl-1'-cyclohexyl)-2-butanone (I) (p-menthanylacetone) is effected by hydrogenating e(4'-isopropenyl-1'-cyclohexenyl)-2-butanone (II) in the presence of a reducing catalyst selected from Raney catalysts and Pd catalysts so that the double bonds other than carbonyl gp. are selectively hydrogenated.



(I)



(II)

(I) useful as perfume, can be easily prepd. The catalyst is Raney nickel, Raney copper, Raney iron, palladium black, palladium-carbon, colloidal palladium, palladium-barium sulphate, palladium-calcium carbonate, etc. The hydrogenation is practiced at 10-80°C under hydrogen pressure 1-10 kg/cm^2 opt. using aliphatic lower alcohol (e.g. methanol, ethanol, propanol, etc.) as the solvent. 17.10.77 as 123553 (3pp5)

AVON D23 66752T/42 =J7 9012-948
Transparent candle materials - consisting of polyamide resin gels in combustible solvents
AVON PRODUCTS INC 26.03.71-US-128501
*A23 (A86) (26.05.79) *DT2210-220 C08l-77/10 C11c-05*

The materials consists of (A) thermoplastic polyamide resin and (B) a combustible solvent capable of dissolving (A) at <100°C to form a transparent gel. (B) is pref. an unsat. fatty acid or fatty alcohol, sat. fatty alcohol, fatty acid ester of dihydric alcohol or mixts. of these in amt. of 0.5-10 wt. pts. per part of (A).

The compsns. are suitable for making transparent candles which do not become cloudy or opaque on storage, or discolour or darken in use. 22.3.72 as 028224 (clg. 26.3.71 -US-128501) C081-77/10, C11c-5/00 (26.5.79) AVON PRODUCTS INC (5pp) (J4 7034549)

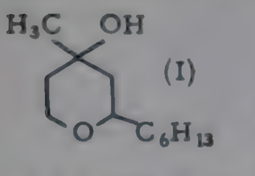
KARL/ D23 62566W/38 =J7 9013-271
Piston of block candle press using paraffin powder - allowing escape of air with self-cleaning effect
KARLSSON L H 08.03.74-SW-003094
*P71 (29.05.79) *DT2509-294 B29c-03 B29g-01 C11c-05/02*

Piston of block candle press has over its skirt surface spaced projections consisting of pegs made of rubber, etc. secured in the skirt and arranged in staggered parallel rows, forming a gap between piston and cylinder wall to allow escape of air during pressing. 7.3.75 as 027924 (clg. 8.3.74-SW-003094) B29c-3/00, B29g-1/00, C11c-5/02 (29.5.79) KARLSSON L.H (3pp) (J5 0125375)

FISK- ★ D23 B/25 ★NO 7701-667
Fish oil trawler
FISKEREDSKAP A/S 12.05.77-NO-001667
Q42 (28.05.79) E02b

AAOR= ★ D23 46813B/25 ★SU -620-487
Methyl-hexyl-tetra:hydro-pyranol perfumery aromatic agent - prepd. by condensing methyl-butenol with enanthic aldehyde in presence of acid catalyst
AS ARMN ORG CHEM 28.03.77-SU-466695
E13 (17.07.78) C07d-309/10 C11b-09

4-Methyl-2-hexyl-tetrahydropyranol-4 of formula (I): is perfumery agent with nasturtium aroma



(I)

It is prepd. by condensing 2-methylbuten-1-ol-4 with enanthal by heating in aq. medium in presence of acid catalyst, e.g. inorganic acid or H-form anion-exchanger, pref. 10-30% (on wt. reagents) of 20-30% H_2SO_4 or H_3PO_4 at 50-60°C. Lower concn. of acid allows side-reaction viz. hydration etc. of 2-methylbuten-1-ol-4.

Gevorkyan, A.A., Kazaryan, P.I., Filatova, G.G. et al. Bul. 31/25.8.78. 28.3.77. as 466695 (2pp114)

TAYL/ ★ D23 46983B/25 ★US T983-004
Stabilised wax compsn. for coating food, carton liners etc. - contains mono-tertiary-butyl hydroquinone antioxidant and acetylated mono:glyceride as solvent for antioxidant
TAYLOR M A 18.05.78-US-907229
E14 G02 P73 (D13) (05.06.79) B32b-09 B32b-15/04 C08l-91/06

Antioxidant monotertiarybutyl hydroquinone (TBHQ) is dispersed in wax, partic. paraffin wax, in concns. of up to about 2.5 wt.% of the wax, by the use of acetylated monoglycerides as solvents for the TBHQ which renders the TBHQ and wax highly compatible. Such stabilised wax compsns. find extensive use as coatings for food and in waxed liners for food cartons etc. 18.5.78 as 907229 (10pp--) (Defensive).

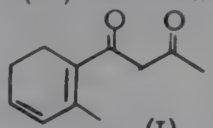
ELLI- D23 45533A/25 =US 4
Fat recovery from hide fleshings and trimmings - by passing particles to steam cooker and screen, followed by flotation
ELLIOTT G H CO 17.05.76-US-687326 (27.07.77-US-81947
*(D18) (05.06.79) *US4087-251 C11b-01/12*

Fat is recovered from hide fleshings, and trimming comminuting the fleshings to less than ½ inch, using to preheat and transfer the fleshing to a cooker in w they are transported by an auger, screening and pre the residual material while discharging the fat broth the cooker and the press., combining the fat from th sources and transferring the fat to a settling area, h the area to a temp. between 180 and 200°F., and rem the settled particulate for a further processing.

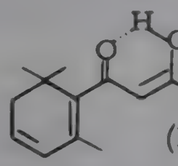
The Parent Patent claims the appts. The pure fat uncontaminated by particulate solids and no noxious odours are produced. 27.7.77 as 819470 Div. ex. 408 (5pp1376)

INFL ★ D23 47067B/25 ★US 41
1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-1,3 butane-di:c organoleptic agent for perfumes and tobacco etc.
INT FLAVORS & FRAGR INC 17.03.78-US-887630
E15 (D18) (05.06.79) C07c-49/61

Pure 1,3-butanedione deriv. of formula (I) and the ta er (Ia) are new:



(I)



(Ia)

(I) has swee honey-like, fr grape-like, ro like, ionone-li hay-like, and f aroma with sea amber and ambergris-like undertones, and sweet-flo top-notes, and is useful in perfumes, etc. (I) is also ful in tobacco and flavouring compsns., when e.g. it cigarettes with a 'fresh cigarette pack' aroma in the stream. 17.3.78 as 887630 (19pp478)

HOFF D23 14605B/08 =US 415
2,2,4-Tri:methyl-cyclopent-4-en-1,3-di:one prepn. - by oxid 3,5,5-tri:methyl-cyclohex-2-en-1,4 di:one with oxygen and catalyst
HOFFMANN-LA ROCHE INC 12.08.77-CH-009910
*E15 (05.06.79) *GB2002-382 C07c-45*

2,2,4-Trimethylcyclopent-4-ene 1,3-dione is prepd. b oxidising 3,5,5-trimethylcyclohex-2-ene 1,4-dione w O_2(-contg. gas) in the presence of a manganese, cobal copper-contg. cpd. as catalyst.

Pref. catalyst is a salt of manganese, cobalt or co with formic acid, acetic acid or propionic acid, such manganese acetate or manganese acetylacetonate. Oxi tion is carried out in the presence of pyridine, collidi piroline or lutidine.

Prod. is prepd. in high yields, has olfactory prope ties and is useful as an intermediate in various system 19.7.78 as 926593 (1p931)

UNIC ★ D23 47104B/25 ★US 415
Quinoline and aniline cpds. synthesis - from an aromatic nitro and and ethylenically unsatd. hydrocarbon in the presence Gp/VIII metal complex
UNION CARBIDE CORP 28.04.75-US-572323
B02 C02 E13 (B05 C03 E14) (05.06.79) C07c-85/11 C07d-21

Prepn. of quinoline and aniline cpds. comprises inter ing a mixt. of (1) a substd. 6-18C aromatic hydrocarb contg. 1-2 NO_2 and a replaceable H atom ortho to each group, with (2) a cpd. $CH_2=CH-R$ (I) (where R is H, 1- alkyl, 5-7C cycloalkyl or 6-18C aromatic) in a molar of (2) to (1) of 1:2 to 20:1, in the presence of (3) a cata of formula $L_nM(X)_a(R)_b$ (II) (where X is Br, Cl, I, CN CH_3COO-; L is 6-18C triarylphosphine, triarylarsine triaryl stilbine or is benzonitrile; M is Pd, Pt, Ru, R Os, or Ir; R is 6-10C aryl opt. substd. in o-, m- or p position by halo, NO_2 or CN, 7-11C aralkyl or 1-8C al n is 1-4; a is 1 or 2; and b is 0 or 1), at 50°-300°C. fo $\geqslant$0.5 hrs.

Prods. are intermediates for dyes, pharmaceutical e.g. antimalarials, amoebicides, etc., mildew proofi

recovery of unreacted nitro-substd. aromatic hydrocar-
ns. 28.4.75 as 572323 (5pp957)

See Also

D13 J7 9013432

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

ARH ★ D25 45714B/25 ★BE-872-852

Vashing powder with improved detergent auxiliary - comprising minoalkane di:phosphonic acid cpd. N,N di:substd. by arboxymethyl

HOECHST AG 19.12.77-DT-756516

A97 E11 (18.06.79) C11d

The washing and cleaning products contain 0.2-5% of diphosphoric acid cpd of formula (I) $R-C(PO_3H_2)_2-N(CH_2COOR_1)$ (I) in which R is H or methyl and R_1 is H, alkali metal or NH_4.

The detergence auxiliary cpds, unlike previously proposed cpds, can be prepd. from readily available materials, are very soluble and have an increased detergence power enabling lower concns to be used.

The products pref contain 0.2-5% of the above cpds, 15-30% of an alkali metal triphosphate, 6-25% of at least surfactant, and 30-78.8% of at least one washing auxiliary or of another detergence auxiliary. Specified surfactants are dodecyl benzene sulphonate, a tallowalkyl fatty alcohol 11 times ethoxylated, or a scrap of hardened tallow. Specified additives are sodium tripolyphosphate, magnesium and sodium silicates, sodium perborate $4H_2O$, sodium sulphate, and CMC. 18.12.78 as 872852 (11pp597)

ZIMZ/ ★ D25 45735B/25 ★DS 2819-940

Detergent, cleansing and cosmetic and/or medicinal soaps - are derived from fermented whey inoculated and fermented with lactic acid bacillus

ZIMZIK H 06.05.78-DT-819940

(D16 D21) (13.06.79) C11d-03/16 C12d-13

Wash-active substances are prepd. by (a) adding sugar-contg. cpds. to whey; (b) subjecting the soln. obtd. first to an alcoholic and then to an aerobic fermentation; (c) inoculating the whey obtd. with lactic acid bacillus from a pure culture and fermenting and (d) adding surfactants and/or other materials to the fermented whey.

The whey is used for mfg. rinses, household cleansers, detergents for fine fabrics, medicinal and cosmetic soaps. The cleansers and detergents are biologically degradable and cause no pollution. The compsns. require no addn. of phosphates and alkalies which might irritate the skin. 6.5.78 as 819940(4pp200)

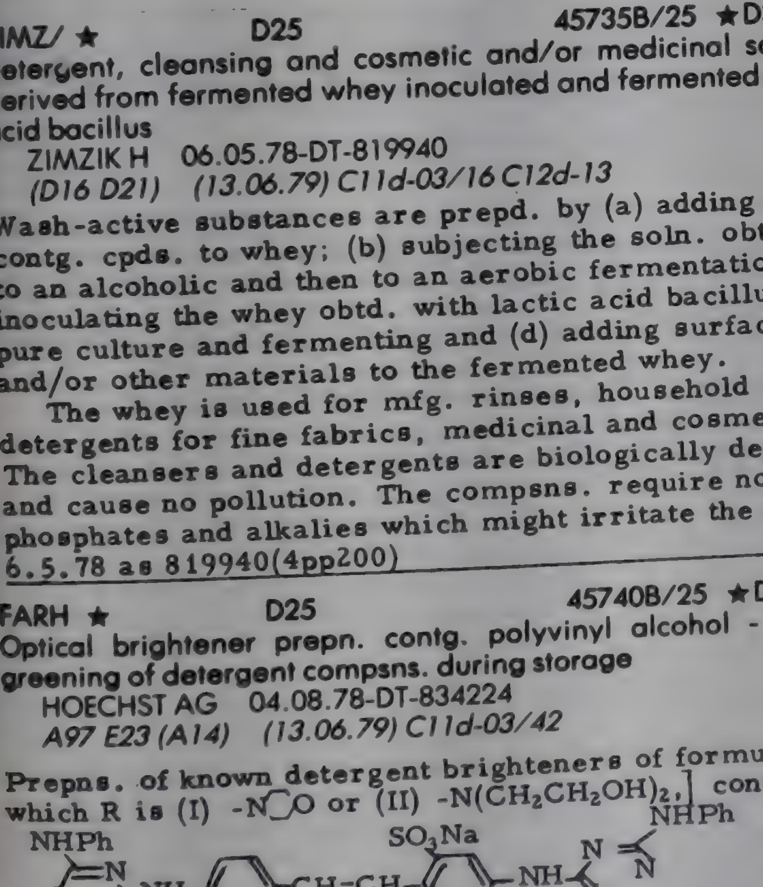
FARH ★ D25 45740B/25 ★DS 2834-224

Optical brightener prepn. contg. polyvinyl alcohol - to reduce greening of detergent compsns. during storage

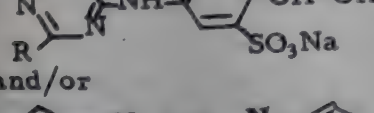
HOECHST AG 04.08.78-DT-834224

A97 E23 (A14) (13.06.79) C11d-03/42

Prepns. of known detergent brighteners of formula [in which R is (I) -N◯O or (II) $-N(CH_2CH_2OH)_2$,] contain 1-100 wt. % polyvinyl alcohol based on wt. of brightener.



and/or



In solid detergent mixts. for use as washing powders. Greening of detergent mixts contg. sec. alkane sulphonates, esp. during storage at

Polyvinyl alcohol of hydrolysis grade 60-100 (80-100) % is used, in amount of 10.50 wt.%.

The brightener is mixed with an aqueous soln. of polyvinyl alcohol which is then dried and pulverised. Pref. spray drying is used, with inlet temp. 150-350°(200-220°C)

10 g. brightener (I) as 70% mixt. with NaCl, is added to 25 wt. 4% aq. soln. of polyvinyl alcohol with polymerisation grade 530 ard.4.8.78 as 834224(5pp195)

BADI ★ D25 45741B/25 ★DS 2841-076

Liquefying aq. amide-contg. textile softener compsns. - by adding amide derivs. of asymmetric substd. alkylene di:amine and higher fatty acid

BASF AG 21.09.78-DT-841076

E16 F06 (13.06.79) D06m-13/36

Aq. textile softeners contg., as active ingredient, 15-40 wt.% condensates, (A) of 1 mol di- or tri-hydroxyalkylamine having formula $(R^1-NCH_2-CHR^2OH)_2$ (I) (where R^1 is H, Me to C_4H_9, hydroxyethyl or 2-hydroxypropyl and R^2 is H or Me) with 0.8-2 mol 16-18 C fatty acid, as an organic or inorganic salt or quat. amine deriv., are liquefied by adding 3-15 wt.%, w.r.t. (A), of amides having formula $R^3R^4N-(CH_2)_n-CHR^5-NH-CO-R^6$ (II) (where n is integer 1-4; R^3 and R^4 are Me, Et or Pr; R^5 is H or Me; R^6 is 7-13 C alkyl, $\geq$ 7 of which are in one chain), as the salts or organic or inorganic acids, and setting to pH 2.5-6.

(II) can liquefy (A) without impairing softening activity. The compsns. have liq. consistency and solubility in cold water, are easily handled and measured out. 21.9.78 as 841076(7pp200)

SENP ★ D25 46067B/25 ★J5 4056-852

Cleaning fluid for contact lens - contains urea and/or guanidine acid salt and reducing agent

SENJU SEIYAKU KK 14.10.77-JA-123649

E19 R21 (E37) (08.05.79) G02c-13

The cleaning fluid contains (a) urea and/or guanidine acid salt and (b) a reducing agent, (b-1) sulphite, (b-2) pyrosulphite, (b-3) dithionite, (b-4) sodium boron hydride or (b-5) reducible and water-soluble organic cpd. contg. a mercapto gp.

The cleaning fluid easily removes proteins from a contact lens.

The guanidine acid salts include the hydrochloride, hydrobromide and hydroiodide salts. The concn. of (a) is 20-60 w/v%. (b) is used in a concn. in which the intra- or inter-molecular S-S bondings in the protein are reduced, pref. 0.1-1.0 w/v%. (b-1), (b-2), (b-3) and (b-4) include their alkali metal salts and alkaline earth metal salts. (b-5) are, e.g. cysteine, acetylcysteine, carbamoylcysteine, cystenyl glycin, ω-mercaptoethanol, etc.

Contact lens is cleaned by dipping it in the cleaning soln. opt. under heating for 5-1 hrs. 14.10.77 as 123649 (5pp90)

LIOY ★ D25 46204B/25 ★J5 4057-504

Finishing agent for dry cleaning - contains amphoteric amino-amine surfactant and polyoxyalkylene alkylphenyl ether phosphate

LION FAT & OIL KK 15.10.77-JA-124289

A97 E16 (A25 E01 E12) (09.05.79) C11d-01/94

The finishing agent contains a mixt. of 20-80 wt. % of amphoteric aminoamine surfactant of formula $R-CON(X)CH_2-CH_2N(Y)(Z)$ (I) (where R is 8-20C alkyl X:H or CH_2CH_2OH, Y : CH_2CH_2OH or CH_2CH_2COOM and M is alkali(ne earth) metal, Z is CH_2COOM or CH_2CH_2COOM) and 80-20 wt. % polyoxyalkylenealkylphenylether phosphate of formula $R'-O(CH_2CHO(R''))_n-P(O)(X')(Y')$ (where R' is phenyl having 8-12C alkyl substit., R" is H or CH_3, n is 3-10, X' and Y' is OH or $R'-O(CH_2.C(R'')HO)_n$).

Laundry is prevented from being charged with electricity. Softness can be afforded to laundry. Specifically, the mixt. is diluted with diluent (e.g., petroleum solvent, halogenated hydrocarbon) or with coupling agent (e.g. methanol, ethanol, ethyleneglycol, butylcellosolve, isopropanol) having 0.8-3.0 times the wt. of that of the mixt. The mixt. may be blended with anticorrosive for metals, fluorescence agent, etc. 15. 10. 77 as 124289 (6pp170)

INUI/ ★ D25 46309B/25 ★J5 4058-575
Soap for mfr. of artificial flowers - contains alcohol cpds., sugar, water and perfume
INUI E 17.10.77-JA-124777
P21 (11.05.79) A41g-01 C11d-13

Undried soap for mfr. of artificial flowers comprises 22-32 wt.% alcohol cpds.; 5-15 wt.% sugar; 12-25 wt.% water; and a suitable amt. of perfume; the alcohol cpds. contain > 10 wt.% glycerine, > 60 wt.% ethanol.

Artificial flowers of beautiful, three-dimensional appearance are mfd. emitting a lasting perfume. The artificial flowers can beused as soap after use. 17. 10. 77 as 124777 (3pp50)

DAII ★ D25 46356B/25 ★J5 4058-693
Synthetic alcohol ester sulphate composite for washing wool - contains lanolin alcohol and/or fatty acid deriv., and alcohol ester sulphate
DAIICHI KOGYO SEIYAKU 19.10.77-JA-126003
A97 E17 F01 (E11) (11.05.79) C11d-01/14 C11d-03/20 C11d-10/02

The composite is obtained by mixing 2-110 wt. % of a lanolin alcohol deriv. and/or a lanolin fatty acid deriv. with synthetic alcohol ester sulphate. The synthetic alcohol ester sulphate is obtained by sulphating 8-22C synthetic alcohol with a sulphating agent, such as, H_2SO_4, chlorosulphonic acid, or fuming H_2SO_4, and thereafter neutralising it with NaOH or KOH.

The lanolin alcohol deriv. is ester sulphate or ester phosphate of lanolin alcohol, or ester sulphate or ester phosphate of polyoxyethylene ether. The lanolin fatty acid deriv. is ester sulphate, ester phosphate, polyoxyethylene ester or multivalent alcohol ester of lanolin fatty acid, or ester sulphate or ester phosphate of lanolin fatty acid low grade alcohol ester.

When wool is washed with the composite, it feels soft and wet. 19. 10. 77 as 126003 (4pp51)

KAOS D25 11763X/07 =J7 9012-925
Bathtub cleaning compsn - contg 2-(tetrahydro)furancarboxylic acid or 2,4 furandicarboxylic acid
KAO SOAP KK 06.06.73-JA-063669
*E13 (26.05.79) *J50013-402 C11d-07/26*

Mild cleaning compsn. for toilets, baths and cloth stain removing contain 2-furancarboxylic acid (I) 2-tetrahydrofurancarboxylic acid, or 2,4-furandicarboxylic acid.

In an example, an aq. toilet cleaning compsn. contg. 9.5% hydrochloric acid and 2% (I) had cleaning power comparable to that contg. oxalic acid in place of (I). 6. 6. 73 as 063669 C11d-7/26 (26. 5. 79) KAO SOAP KK (3pp) (J5 0013402)

KAOS D25 56270W/34 =J7 9012-926
Liq detergent stabilisn - using polyhydric alcohols
KAO SOAP KK 08.06.73-JA-063765
*E17 (26.05.79) *J50013-403 +C11d-01/12 C11d-03/20 C11d-10/02*

Polyhydric alcohols are used to stabilise sulphonate or sulphate detergents contg. calcium ions.

Thus a detergent comprising 20 pts. polyoxyethylene alkyl ether sulphuric acid ester Na salt, 1.5pts. calcium chloride, 10 pts. ethylene glycol and 68.5pts. water remained transparent at 50°C for $\gt$1 week. 8. 6. 73 as 063765 C11d-10/02, 11/12, 3/20 (26. 5. 79) KAO SOAP KK (2pp) (J5 0013403)

LIOY D25 60365X/32 =J7 90
Detergent compsn. for household use - contains nonionic surf
alpha-hydroxy carboxylic acid, defined solvent compatibl
water
LION FAT & OIL KK 19.12.74-JA-146213
*E19 (29.05.79) *J51071-302 C11d-01/66 C11d-03/20 10/02*

Detergent compsn. suitable for removing dirt secret
from the human body which adheres to hard surfaces
floors or walls of bathtub, bathrooms, etc. consists
a non-ionic surfactants such as an ethylene oxide add
10-16C alcohol, an ethylene oxide adduct of alkyl phe
6-18C alkyl, etc. (B) a-hydroxy-carboxylic acid of fo
mula (I) (X:H, CH_3, CH_2OH, CH_2COOH, HOCHCOOH;Y:H
CH_2COOH) and (C) a solvent compatible with water, o
mula (II) (R:1-4C alkyl; R':H, CH_2;R^2:H, 1-3C alkyl,
n:0-3; if n is 0, R is C_4H_9 and R^2 is H).
HOCXYCOOH (I) $R-(-OCHR'-CH_2-)_n-OR^2$ (II)
Ratios: (A) 5-20 wt. %, (B) 1-10wt. %, (C) 1-10 wt. %
(A)/(B)=7/1-2/5 and (B)/(C)=5/1-1/6. 19. 12. 74 as 14
C11d-10/02, 1/66, 3/20, 3/43 (29. 5. 79) LION FAT &
KK (6pp) (J5 1071302)

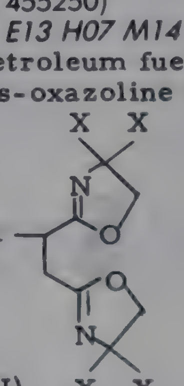
KAOS D25 59685X/32 =J7 90
Ether sulphate based surfactant contg. detergents - have goo
water properties and are easily rinsed away
KAO SOAP KK 20.03.75-JA-033646
*E12 (E16) (29.05.79) *BE-839-339 C11d-01/29*

A detergent compsns. comprises (i) 0.5-60 wt. % of a
ether-sulphate based surfactant comprised of (A) $\gt$70
of a cpd. (I) $R_1-O-(CH_2CH_2O)_nSO_3M$ and (B) $\lt$30 wt. %
cpd. (II) $R_2-CH(R_3)-CH_2O(CH_2CH_2)_nSO_3M$ (where R_1 is
linear 6-15C alkyl, the av. number being 8-13; R_2 is
linear alkyl; R_3 is 1-4C linear alkyl; provided that the
$R_2CH(R_3)CH_2$- has an av. of 8-13C; n is 0.5-1.5 on av
is a water-sol. cation chosen from alkali (ne earth)m
and alkanolamines) and (ii) the remainder being a wat
soluble anionic surfactant (but not an ether-sulphate),
a synthetic, water-sol. amphoteric or nonionic surfa
or an inorganic, water-sol., alkaline or neutral adju
salt, or water-soluble heavy metal sequestrants, or s
lising agents, or water, or mixts. of these.

The compsn. has excellent props. in hard water, t
reducing or eliminating the amt. of Na tripolyphospha
used; foam produced by the compsn. is easily rinsed
after washing. Compsns., are used for washing textile
table linen, the hair, furnishings etc. 20. 3. 75 as 033
C11d-1/29 (29. 5. 79) KAO SOAP KK (8pp) (J5 1109002)

ESSO D25 40498B/21 =US 415
lubricants and concentrates contg. bis-oxazoline cpds. - prepd.
hydrocarbyl-substd. unsatd. di:carboxylic acid cpd.
aminoalcohol
EXXON RES & ENG CO 30.07.76-US-710279 (27.03.7
455250)
*E13 H07 M14 (05.06.79) *US4153-566 +C10l-01/22*

Petroleum fuel compsn. comprises 0.001-0.5 wt. % of
bis-oxazoline (I). Cpd. (I) is obtd. from (i) a mole of



(I)

hydrocarbon-substd. 4-10C mono-
unsatd. dicarboxylic acid, its ester
anhydride, having 8-49C in hydroca
substit. reacted with (ii) 2 moles of
12-disubstd.-2-amino-1-alkanol hav
2-3 OH gps. and 4-8C of formula NH
CX_2-CH_2OH where X is 1-3C alkyl o
droxy alkyl; $\geqslant$1 X is hydroxy alkyl. R
tion is effected at 140-240°C. for 0.
24 hrs. with removal of 3 moles H_2O
give the bis-oxazoline of formula (I)
where R is hydrocarbyl. (I) are useful as antirust age
detergents or dispersants for oil compsns. and fuels,
lubricating agents. 19.6.78 as 917323 (+6.12.74-US-
530235) (6pp963)

PROC ★ D25 47043B/25 ★US 415
Liq. fabric conditioning compsn. for home laundry use - comp
cationic conditioner, protonated di poly:ethoxy mono:alkyla
lower alkanol and water
PROCTER & GAMBLE CO 07.08.78-US-931588
A97 E19 F06 (A25 A87) (05.06.79) D06m 13/24

. fabric conditioning compsn. comprises (a) 3-12 wt.% cationic fabric conditioning agent, (b) 0.2-1.3 wt.% rotonated di-polyethoxy monoalkyl amine, (c) 1-6 wt.% ower alcohol, and (d) water, the compsn. having a pH .5-5.5.

Component (a) comprises (1) a quat. ammonium salt and a quat. imidazolium salt, the wt. ratio (1):(2) being 1-.5-1. Fabrics are conditioned by rinsing them, after washing and before drying, in an aq. bath contg. the conditioner in amt. to provide 2-200 (10-100) ppm. of component (a) (based on the wt. of the rinsing bath).

Compsn. is for use in home laundry operations. It has good storage stability in relation to both elevated temps. and freeze thaw cycles, and it has good fabric softening and antistat performance. 7.8.78 as 931588 (5pp914)

Omitted from page 21

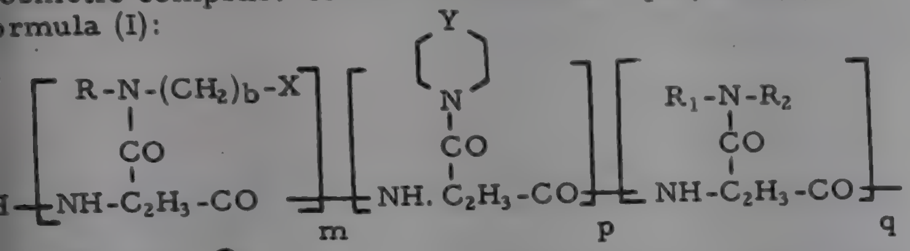
REA ★ D21 45979B/25 ★FR 2403-076

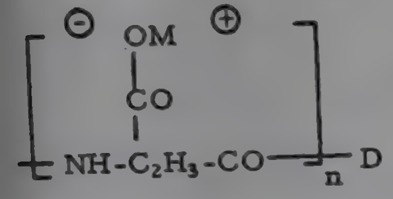
osmetic compsn. for skin and hair treatment - contains oly:aspartic acid amide giving improved smoothness, gloss etc.

L'OREAL SA 14.09.77-FR-027769 (27.04.78-FR-012516)

A96 (18.05.79) A61k-07 C08g-69

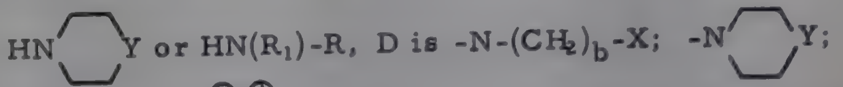
osmetic compsns. contain as additive a polymer(s) of ormula (I):





(I)

In (I) R is H or lower alkyl; b is 2-6; X is -NR_3R_4 or -$N^+R_3R_4R_5Z^{\ominus}$; R_3, R_4, R_5 are H, 1-18C alkyl or $\not>$ 18C alkenyl, or R_3 and R_4 together form with the N to which they are attached a 6-membered ring contg. another heteroatom, and $Z^{\ominus}$ in an (in)organic anion; Y is O, -CH_2-, -$N^{\oplus}(R_6)(R_7)Z_1^{\ominus}$; R_6 and R_7 are H, 1-18C alkyl or $\not>$ 18C alkenyl and $Z_1^{\ominus}$ is an (in)organic anion; R_1 is H hydroxy alkyl, hydroxyalkyloxyalkyl, 1-18C alkyl or $\not>$ 18C alkenyl; R_2 is H, hydroxyalkyl or lower alkyl; M is H, alkali metal, or ½ alkaline earth metal atom, or M^+ is an ammonium derived from an amine: HN(R)-$(CH_2)_bX$,



HN Y or HN(R_1)-R, D is -N-$(CH_2)_b$-X; -N Y;

$$-\underset{\substack{|\\R_1}}{N}-R_2 \quad \text{or} \quad \overset{\ominus\oplus}{-OM}$$

; m, p, q and r are integers including o, such that m+p+q+r is 15-500; m and p cannot both be zero except when (a) q is ≠ o and R_1 is hydroxyalkyl; or (b) q is o.

(I) is partic. used in shampoo, creams, dyeing compsns., imparting gloss, smoothness, suppleness, etc. 14. 9. 77 as 027769 Div. ex. 27. 4. 78-012516 (26pp950)

CPI INDEXES

LERTING PATENTEE INDEX (II)

eekly by section and overall, lists all current patents in tentee code order and, within a given patentee, in earliest ority date order. The first line gives patentee code, rliest priority date, patentee name, CPI classes and finally e current patent number. The second line gives the first rt of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

CPI CLASS INDEX (IV)

Veekly only. Headings are all the CPI lasses within the section to which an Alerting Bulletin relates, arranged in numerical order. Posted under each class heading is a list, in country then patent number order, of all basic or equivalent documents referenced or cross-referenced under that heading.

```
      M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

BASIC NUMBER INDEX (V)

Weekly by section and overall, lists all entries by accession number. Each heading consists of the accession number in bold, followed by the CPI section letters. There then follows a list of all the family members, commencing with the basic and finishing with the current week's patent. For each family member the CPI week of issue is quoted, and a plus sign indicates that a multiple priority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                              49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                         49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                              48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distingui accepted West German specifications (DAS) from unexamined applications (OLS) which are given the no DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

OR= 28.03.77 AS ARMN ORG CHEM D23 E13 *SU -620-487
Methyl-hexyl-tetra:hydro-pyranol perfumery aromatic agent - 46813B/25
BO 19.10.77 ABBOTT LABORATORIES A60 C02 D22 E13 =SW 7810-722
Bactericidal and fungicidal 2-methyl-1-naphthyl maleimide - 19938B/10
HE= 14.02.77 AS BELO HEAT MASS D14 J08 *SU -620-767
Soln. and suspension vortex spray dryer - 46883B/25
HE= 14.02.77 AS BELO HEAT MASS D14 J08 *SU -620-772
Thermally sensitive material e.g. casein drier - 46886B/25
IN 18.10.77 AJINOMOTO KK D13 *J5 4059-351
Water-swellable dried food of high protein content - 46510B/25
BI- 11.09.75 ALBION LAB INC D13 (D16) =GB 1547-412
Metal proteinates prepd by protease hydrolysis - 57803X/30
EK/ 12.11.66 ALEKSEEV A K B04 D16 *SU -233-169
Anti-influenza vaccine for mass oral vaccination - 46662B/25
OR= 01.09.75 AS LATV ORG SYNTH B05 D23 E13 #J5 4059-313
Stabilisation of oils, fats and vitamin compsns. - 14760Y/09
MCY 08.07.74 AMERICAN CYANAMID CO A91 D15 =CA 1055-802
Clearing natural water contg. suspended colloidal particles - 06771X/04
MCY 20.06.77 AMERICAN CYANAMID CO B04 C03 D16 =ZA 7802-808
Antibiotic BL 580 ZETA useful as anticoccidiosis agent - 00004B/01
MHP 02.11.76 AMERICAN HOME PROD CORP A96 D22 =ZA 7705-790
Orthopaedic bandage impregnated with thermoplastic soln. - 35211A/20
MMA 12.11.68 AMER MACH & FOUNDRY D15 =IT 1029-508
Desalination of sea water - 43613R/24
MMO 07.12.77 AMERICAN MONITOR CORP B04 D16 =DT 2847-202
Enzymatic determination of tri-glyceride(s) in serum - 44032B/24
MOR- 05.10.77 AMER ORIGINAL CORP D12 =SF 7803-019
Edible shellfish treatment with sodium sulphite and/or metabisulphite - 30031B/16
ANIS 08.08.75 ANIC SPA D23 E16 =DS 2635-545
Dimethyl octenyl nitrile and dimethyl hydroxy octyl nitrile - 09409Y/06
ANIS 06.12.77 ANIC SPA A96 B07 D21 (B04) =NL 7811-876
Base for dermatological ointments and creams - 44325B/24
ANIS 06.12.77 ANIC SPA B04 D21 =NL 7811-918
Anticariogenic dentifrice compsns. - 44323B/24
ANIS 03.01.78 ANIC SPA B05 D23 E17 *BE -872-723
Methyl-heptenone prepn. for use as terpene intermediate - 45685B/25
ANVR 14.09.77 AGENCE NAT VALORISATION D13 =FR 2403-031
Foam-forming egg-white substitute for confectionery - 24207B/13
ARMC 22.02.74 ARMCO STEEL CORP D15 E31 M24 =IT 1029-758
Iron-contg. acid waste waters treatment - 59110W/36
ASAE 30.06.76 ASAHI ELECTROCHEM IND KK D13 =US 4157-405
Cocoa butter substitute for chocolate mfr. - 07742A/04
*ASAG 18.10.77 ASAHI GLASS KK D15 *J5 4058-948
Decolourisation of night soil-treated water - 46430B/25
*ASAG 21.10.77 ASAHI GLASS KK D13 E17 G04 (E13 E34) *J5 4059-655
Food refrigerant compsn. - 46540B/25
ASAG 24.10.77 ASAHI GLASS KK A85 D15 J03 (A14 A91) #SW 7711-959
Cation exchange resin of fluorinated polymer - 70573A/39
ASAH 05.08.74 ASAHI KASEI KOGYO D15 E37 J01 =DS 2534-458
Processing cyanogen-contg. organic waste water - 17221X/10
*ASAH 28.07.78 ASAHI KASEI KOGYO D13 (D21) *US 4157-404
Lecithin prodn. from raw egg yolk - 47085B/25
*ASAH- 19.10.77 ASAHI CARBON KK D15 (D17) *J5 4058-951
Biological purificn. of starch- and/or sugar contg. waste water - 46433B/25
*AVER/ 15.12.75 AVERY R W D13 *US 4157-060
Viscosity controlled egg cooker - 46996B/25
AVON 26.03.71 AVON PRODUCTS INC A23 D23 (A86) =J4 7034-549
Transparent candle materials - 66752T/42
AVON 26.03.71 AVON PRODUCTS INC A23 D23 (A86) =J7 9012-948
Transparent candle materials - 66752T/42
*AZOV= 09.02.77 AZOV-BLACK SEA FISH D12 *SU -621-336
Fish smoking or drying chamber - 46937B/25

BACH/ 15.03.75 BACHHOFER B D15 (D22) =CA 1056-075
Treatment and sterilisation of medicinal bath water - 75068X/40
BADI 06.03.74 BASF AG C01 D22 E12 F09 (C03 E19) =IT 1029-957
Wood-preservative fungicides - 64078W/39
BADI 07.03.74 BASF AG A97 D25 E19 (A14 A23 A25) =IT 1029-972
Washing polyester textiles printed with dispersion dyes - 64085W/39
BADI 23.09.77 BASF AG D25 E16 =J5 4056-990
Stabilising nonionic surfactant against alkali discolouration - 23957B/13
BADI 07.12.77 BASF AG D25 E19 =DT 2754-359
Prepn. of strongly alkaline aq. solns. of nonionic surfactants - 44034B/24
*BADI 21.09.78 BASF AG D25 E16 F06 *DS 2841-076
Liquefying aq. amide-contg. textile softener compsns. - 45741B/25
BAKP 12.04.77 BAKER PERKINS HOLD D11 J02 =ZA 7802-119
Batch mixing system with reduced cycle time, esp. for baking dough - 76849A/43
BALS/ 01.12.77 BALSANO A R D13 =NL 7811-629
Aq. bath for removing surface contamination from foodstuffs - 25941B/14

*BANY 14.10.77 BANYU PHARM CO LTD D16 *J5 4059-393
Hydrolysis of N-chloro:acetyl-metal hydroxy-DL phenyl:glycine - 46515B/25
*BANY 14.10.77 BANYU PHARM CO LTD D16 *J5 4059-394
Sepn. of N-benzoyl-m-hydroxy-DL-phenyl glycine - 46516B/25
*BANY 20.10.77 BANYU PHARM CO LTD B02 D16 *J5 4059-397
Cephazolin prodn. - 46518B/25
*BATI/ 03.11.77 BATISTA B D11 *BR 7707-381
Discharge pipe accessory - B/25
*BDOC= 03.03.77 BELO DOCTORS RETRAINING D13 *SU -621-340
Freezing liquid products in vacuum with formation of hollow granules - 46941B/25
*BEAF 27.05.77 BEATRICE FOODS CO B04 C03 D16 (D13) *ZA 7802-875
Stable freeze-dried Lowenstein-Jensen medium - B/25
BECI 28.09.77 BECKMAN INSTRUMENTS INC B04 D15 J04 (D16) =J5 4058-492
Detecting toxicity in aq. liquids by photometry - 10012B/06
BEGH- 20.09.77 BEGHIN-SAY SA A96 D22 F07 =FR 2403-186
Stratified absorbent prod. used as dressing or protective slip - 01969B/02
BEHW 27.10.77 BEHRINGWERKE AG B04 D16 =SW 7811-083
Stabilising meningococcal polysaccharide for use in vaccine - 33342B/18
*BEHW 09.12.77 BEHRINGWERKE AG D16 *DT 2754-830
amoeba cells cultivation - 45820B/25
BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 =SF 7802-881
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04
BENC 29.03.77 BENCKISER-KNAPSACK D15 E11 F09 =DS 2713-827
(N)-Sulpho-alkane-aminoalkane-phosphonic acids - 55139A/31
*BERE/ 02.03.77 BEREZNYAK E D D13 *SU -621-338
Tomato concentrate with reduced cellulose content prodn. - 46939B/25
BERO- 19.09.77 BERO-ENERGIE BERATU D15 =FR 2403-301
Waste effluent heat recovery - 26268B/14
BERP 28.10.77 BEROL KEMI AB D15 E11 =NO 7803-641
Removing oil fat, wax, etc. from a surface - 35799B/19
BERP 28.10.77 BEROL KEMI AB D15 E11 =SW 7712-179
Removing oil fat, wax, etc. from a surface - 35799B/19
BGDR 15.02.74 BIG DRUM INC D13 =IT 1029-659
Multi-nozzle syrup dispenser for ice cream cones - 57442W/35
BIND- 15.09.77 BINDICATOR CO D13 =FR 2403-558
Measuring material moisture content in powdered milk processing - 24342B/13
BIOI- 22.08.75 BIO-INDUSTRIES INC D16 =GB 1547-411
Ethanol from cellulosic fibres - 16278Y/09
BIOR- 20.09.74 BIO RES CENT CO D16 =CA 1055-861
Ethanol prepn. from cellulose - 18413Y/11
*BIOR- 14.12.77 BIO RESEARCH D16 E17 *BE -872-680
Microbiological prepn. of mono and/or di:carboxylic acids - 45675B/25
BLGN 26.09.77 BELGONUCLEAIRE D15 K07 =J5 4057-351
Treating water contaminated radioactively, chemically or biologically - 25181A/14
BLUE- 25.08.77 BLUE WING CORP C03 D13 =J5 4059-363
Microencapsulation of lipids in protein to prepare foods - 01951B/02
BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =SW 7810-143
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18
BOEF 09.12.77 BOEHRINGER MANNHEIM GMBH B04 D13 E13 J04 =DT 2754-944
Colorimetric assay of ascorbic acid - 89647A/50
BOEH 09.12.77 BOEHRINGER INGELHEIM B04 D13 E13 J04 =ZA 7802-626
Colorimetric assay of ascorbic acid - 89647A/50
*BOEH 10.12.77 BOEHRINGER INGELHEIM B04 D16 E19 (D13) *DT 2755-124
Nutrient medium for microbe counts - 45852B/25
BOLI 24.10.77 BOLIDEN AB D15 =SW 7711-948
Purificn. of water with magnetic sepn. of pptd. sludge - 31595B/17
BRID 14.12.74 BRIDGESTONE TIRE KK A88 D14 (A25) =J7 9013-378
Polyurethane roll for rice hulling - 62186X/33
BRIK- 10.10.77 BRIK PAK INC B04 D16 (D13) #SF 7702-985
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16
*BRIT/ 04.11.77 BRITTO D R D14 *BR 7707-427
Forage harvesting machine - B/25
BRPE 19.03.74 BRITISH PETROLEUM LTD D16 H04 =IT 1030-000
Single-celled micro organism-contg. creams - 65913W/40
*BRUE/ 19.09.77 BRUEL A A88 D16 *FR 2403-013
Elastic, pref. polycarbonate, paddles on grape harvesting appts. - 45973B/25
BUCL 25.10.77 BUCKMAN LABS INC A97 D15 E11 M14 =SW 7801-154
Compsn. used to prevent corrosion and incrustation in aq. systems - 44129A/25
BUCL 08.02.78 BUCKMAN LABS INC A97 D15 E11 M14 =US 4157-364
Compsn. used to prevent corrosion and incrustation in aq. systems - 44129A/25
*BUTT= 04.11.76 BUTTER CHEESE IND D13 *SU -621-330
Cheese salting installation - 46932B/25

CAAL 10.11.77 AIR LIQUIDE CANADA D15 #BR 7707-542
Aq. effluent treatment in combined biological reactor and clarifier - 26959A/15

• CADB 19.05.77 CADBURY TYPHOO LTD D13 *ZA 7802-788
Dried food prod. - B/25
CALG 21.12.73 CALGON CORP D18 =IT 1029-636
Tobacco smoke filter material for removal of hydrogen cyanide - 44103W/26
CALI 21.11.77 CHEVRON RESEARCH CO D15 H05 J01 #BR 7707-732
Gravity separation of liquids - 86409Y/48
CANA 03 06.74 CANADIAN PAT & DEV LTD D13 =CA 1055-773
Dehydrated potato granules prodn. - 12640Y/07
CARG- 22.10.77 CARGO GLEET CHEM CO D25 E19 F06 =SW 7810-909
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
CARS- 09.06.77 CARSON PROD CO D21 E16 =ZA 7803-133
Setting hair using guanidine hydroxide as active agent - 20330B/11
CART/ 29.07.66 CARTER J F B07 D13 (D17) =IT 1029-504
Production of fortified sugar - 46917R/26
CARV/ 20.09.77 CARVALHO R J D15 #FR 2403-300
Waste water treatment by flocculation and oxidation - 70472Y/39
• CASS- 10.12.77 CASSELLA AG A97 D15 *DT 2755-125
Mud removal from waters - 45853B/25
CELA 06.10.76 CELANESE CORP A88 D18 (A11) =ZA 7705-993
Cigarette filters - 26944A/15
CELL- 09.12.77 CELLCOR CORP CANADA D17 (D13) #DT 2754-924
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16
CEPA 19.05.72 CELLULOSE PAPER IND RES D13 F09 (D16) =SU -436-905
Preventing caramelization of vegetable hydrolyzates - 38857W/23
• CGRR 16.09.77 CGR-MEV D15 K08 *FR 2403-302
Irradiation of waste water with electrons from linear accelerator - 45991B/25
CHAL 08.12.77 MACHINES CHAMBON D17 =DT 2852-807
Infrared preheat of sugar lumps between moulding and drying - 24007B/13
CHEM 23.02.74 CHEM WERKE HULS AG D25 E12 F06 =IT 1029-822
Liq. carpet cleaning compsns. - 46133W/28
CHEM 22.10.75 CHEM WERKE HULS AG A35 D21 E13 (A23) =US 4157-330
Cyclic diesters prepn. of dodecanedioic acid - 32890Y/19
• CHUS 14.10.77 CHUGAI PHARMACEUTICAL KK B04 D16 *J5 4059-201
Antibiotic 216 - 46453B/25
CHVA/ 27.11.68 CHVAPIL M D22 =DS 1811-290
Collagen membranes contng a therapeutic compd - 41264R/23
CIBA 04.07.73 CIBA GEIGY AG C03 D15 =CA 1055-719
Herbicidal compsns contg terbutryne impregnated on carrier - 24989X/14
CIBA 11.05.77 CIBA GEIGY AG B05 D21 E14 =ZA 7802-671
2-Phenylamino phenyl acetyl amide(s) - 82116A/46
CIBA 28.09.77 CIBA GEIGY AG D25 E34 =J5 4057-503
Aq. or powdery detergent compsns. - 28144B/15
• CLEV- 22.11.77 CLEVEPAK CORP D15 *US 4157-304
Aeration chamber for mixing gas and waste water - 47042B/25
COLG 11.01.73 COLGATE PALMOLIVE CO D21 E33 =US 4157-378
Toothpaste compsn. - 39947V/22
COLG 01.03.74 COLGATE PALMOLIVE CO D25 E34 F06 (E14) =IT 1029-826
Softening, bleaching and anti-static compsn. - 47752W/29
COLG 12.12.74 COLGATE PALMOLIVE CO D22 =DK 7805-157
Disposable diaper combined with disposal bag - 01553X/01
COLG 09.08.76 COLGATE PALMOLIVE CO D22 F07 =GB 1547-524
Disposable sanitary towel or diaper - 90087Y/51
COLG 16.11.76 COLGATE PALMOLIVE CO A96 D21 =ZA 7706-315
Surfactant mixt. for skin-softening foam baths - 36931A/21
COLG 18.11.76 COLGATE PALMOLIVE CO D22 =ZA 7706-048
Disposable diaper with edge fastening tapes - 06082A/03
COLG 26.11.76 COLGATE PALMOLIVE CO A96 D22 F07 =ZA 7706-049
Disposable nappy with absorbent facing fabric - 23396A/13
COLG 10.05.77 COLGATE PALMOLIVE CO D25 E19 =ZA 7802-643
Opaque liquid detergent compsn. for cleaning hard surfaces - 67110A/38
COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =SW 7810-837
Deodorant stick based on alkali metal bi:carbonate - 18051B/10
• COLL/ 24.08.77 COLLIER J P D22 M22 *US 4156-943
Sintered metal porous prosthetic device - 46988B/25
CORG 14.09.77 CORNING GLASS WORKS D16 =FR 2403-384
Composites of microbes bound to porous support - 24332B/13
CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =SW 7804-306
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19
CRDC 29.09.75 CORDIS CORP B04 D16 =US 4157-280
Hepatis-associated antigen detection - 26491Y/15
CROS- 01.06.73 CROSSFORD POLLUTION D15 =J7 9013-256
Effluent matl treated with silicate and portland cement - 88160V/51
CSIR 21.02.74 COMMONWEALTH SCIENT ORG A97 D13 (A11) =CA 1055-916
Reducing bitter component content in fruit juices - 59135W/36
CSIR 02.06.77 COMMONWEALTH SCIENT ORG A91 D15 M25 (A21) =ZA 7802-956
Phenol-formaldehyde-di-sec. amino cpd. ion exchange resin - 88232A/49
CSIR 06.09.77 COMMONWEALTH SCIENT ORG C01 D22 E11 F06 =J5 4059-229
Fibre-reactive organo-phosphorus insecticide derivs. - 22345B/12

• DAII 19.10.77 DAIICHI KOGYO SEIYAKU A97 D25 E17 F01 (E11) *J5 4058-893
Synthetic alcohol ester sulphate composite for washing wool - 46256B/25
• DAIL 18.10.77 DAICEL KK D16 F09 J01 *J5 4058-270
Filter aid for use in filtering alcoholic drinks - 46290B/25
DANA 27.10.77 DANFOSS A/S D15 E36 J04 =SW 7811-132
Polarographic measurement of oxygen in liquids - 35501B/19
DARD/ 23.01.75 DARDIK I I D22 =CA 1055-843
Prothetic elements for mammals - 81514W/50
• DAVI/ 23.11.77 DAVIES T M C B04 D16 *GB 2009-785
Metabolite extraction from cells by shock excretion - 46041B/25
DEBI- 06.12.77 DE BI DERIVATI BIOLOGIC B04 D21 =NL 7811-918
Anticariogenic dentifrice compsns. - 44323B/24
DEGS 17.12.76 DEUTSCHE GOLD & SILBER A35 D15 E14 J01 (E37) =
4157-300
Purifying effluents contg. phenol and/or formaldehyde - 42326A/24
DEJI- 18.09.76 DEJ INT RES CO D13 =ZA 7705-551
Instant coffee extract prepn. - 23624A/13
• DENG- 23.08.77 DENGYOSHA MACH WORK D16 *US 4157-303
Rotating disc-type biological waste water treatment appts. - 47041B/2
DEXC 11.10.77 DEXTER CORP A96 D22 F07 =SF 7803-061
Antislip sheet material for covering surgical sheets - 31808B/17
DIAS 04.12.72 DIAMOND SHAMROCK CORP C02 D15 F09 (C03) #
1029-974
Tetrachloro- hydro-thiophene dioxide/bis trichloro-methyl) sulpho
30512W/18
• DISI= 21.11.75 DISINFECT STERIL RE B05 C03 D21 *SU -547-054
Pharmaceutical and agricultural blood sucking insect repeller
46707B/25
DOWC 15.05.78 DOW CHEMICAL CO C03 D13 #ZA 7802-774
Feed compsns. contg. malic acid as ruminant feedstuff - 86136A/48
• DOWO 24.03.78 DOW CORNING CORP A96 D22 *US 4157-085
Surgically implantable tissue expanding device - 46997B/25
• DSOM- 12.12.77 DSO MLETSCHNA PROMI D13 *DT 2755-310
Accelerating white cheese prodn. from milk - 45884B/25
• DSOP- 06.12.77 DSO PHARMACHIM B04 D16 (D21) *DT 2852-779
Yoghourt lyophilisate for cosmetic and pharmaceutical use - 45939B/2
DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =DK 7804-920
Immobilising enzymes on amorphous silica carrier - 35242B/19

EAUX- 04.03.68 COMP EAUX DE L'OZON D15 E12 =IT 1029-551
Clarification of water - 62919Z/00
ECKA- 14.06.74 PFANNI-WERK ECKART D13 =CA 1055-774
Dry, reconstitutable potato flakes - 72565W/44
ELEX 17.10.77 ELECTROLUX AB D22 =SW 7711-659
Autoclave sterilisation by evaporating formalin - 31887B/17
ELEX 17.10.77 ELECTROLUX AB D22 =SW 7711-660
Autoclave sterilisation by evaporating formalin - 31887B/17
ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 =GB 2009-739
Antibiotic A-40104 fraction A - 93172A/51
ELLI- 27.07.77 ELLIOTT G H CO D23 (D18) =US 4157-335
Fat recovery from hide fleshings and trimmings - 45533A/25
EMEY 21.09.77 EMERY INDUSTRIES INC A35 D23 E13 (A23) =J5 4059-294
Hetero-macrocyclic perfume ingredients - 08055B/05
• EMRI/ 07.12.77 EMRICH E D11 *DT 2754-459
Rapid, mechanical prodn. of pastries, esp. cakes - 45775B/25
ENFO/ 04.10.77 ENFORS S O D16 F09 =SF 7802-976
Microbiological modification of hardwood - 31979B/17
• ESCA- 05.12.77 ESCAN METAL CANADA D13 *DT 2851-671
Steam chamber for cooking foodstuffs - 45915B/25
ESSO 27.03.74 EXXON RES & ENG CO D25 E13 H07 M14 =US 4157-243
lubricants and concentrates contg. bis-oxazoline cpds. - 40498B/21
ETHI 27.02.74 ETHICON INC A96 D22 =IT 1029-862
Swaged needle suture combination - 27156W/16
ETHI 05.12.77 ETHICON INC A96 D22 =NL 7806-405
Surgical suture needle with thread detachable by pulling - 87831A/49
ETHI 12.06.78 ETHICON INC A23 D22 F01 (A96) =US 4157-437
Crystalline lactide-glycolide copolymer - 04377B/03
EXTE- 27.09.77 EXTERMA-GERM PROD L A94 D22 E14 F06 (D25) =SF 7802-902
Impregnated material esp. with antimicrobial compsn. - 10007B/06

FARB 27.09.73 BAYER AG A82 D18 F08 G02 =IT 1029-608
Films and coatings from thermo-sensitised polymer dispersions
29196W/18
FARB 15.02.74 BAYER AG A41 D15 E13 (A60) =CA 1055-947
Alpha, beta-olefincally unsatd. monomers - 57172W/35
FARB 23.02.74 BAYER AG D16 E36 =IT 1029-821
Clarifying wines, musts or fruit juice - 59030W/36
FARB 30.09.76 BAYER AG A26 D21 (A60 A96) =GB 1547-511
Crosslinking paste for organo-polysiloxane - 27121A/15
FARB 25.05.77 BAYER AG A96 D21 (A14 A25) =ZA 7802-978
Polyurethane elasticised PMMA dental moulding - 86137A/48
• FARH 00.00.76 HOECHST AG D15 *DT 2755-286
Waste water purification - 45881B/25
FARH 19.09.77 HOECHST AG D15 E19 M14 =FR 2403-396
Anticorrosion compsn. for ferrous metals - 22078B/12
FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =DK 7804-872
Preparing vinyl ester-crotonic acid copolymer - 37255B/20

RH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =NO 7803-676
Preparing vinyl ester-crotonic acid copolymer - 37255B/20
RH 05.12.77 HOECHST AG D25 E34 =DT 2754-020
Sodium tri:poly:phosphate for detergent slurry use - 44361B/24
RH 19.12.77 HOECHST AG A97 D25 E11 *BE -872-852
Washing powder with improved detergent auxiliary - 45714B/25
RH 04.08.78 HOECHST AG A97 D25 E23 (A14) *DS 2834-224
Optical brightener prepn. contg. polyvinyl alcohol - 45740B/25
RM 15.09.77 FIRMENICH SA B07 D13 E13 (B05 D23) =FR 2403-328
2-Formyl-bi:cyclo-heptane-3-carboxylate derivs. prodn. - 24225B/13
RM 06.12.77 FIRMENICH SA B07 C03 D13 E13 (B03) =NL 7811-694
3-Methyl-1,2,4-trithiane used in aromatising compsns. - 44320B/24
SK- 12.05.77 FISKEREDSKAP A/S D23 *NO 7701-667
Fish oil trawler - B/25
SO 31.10.77 FISONS CORP D22 =NO 7803-651
Sterilising soln. contg. physiologically acceptable salt and alcohol - 37529B/20
LEM- 15.06.77 FLEMSTOFTE-MADS AMB C03 D13 *DK 7702-648
Treatment of straw to improve its food value - B/25
MCC 07.06.71 FMC CORP A96 B04 D17 (A11) =DS 2226-297
Modified agar(ose) - 81638T/52
MCC 03.10.77 FMC CORP D25 E19 =J5 4059-469
Activator for per:oxygenated bleach - 25936B/14
FMCC 03.10.77 FMC CORP D25 E14 F06 (E13) =J5 4059-470
Low temp. bleaching of soiled and/or stained fabrics - 70479A/39
FMCC 03.10.77 FMC CORP D25 E11 F06 =J5 4059-471
Organo:phosphorus azide per:oxygen textile bleach activators - 83827A/46
FMCC 03.10.77 FMC CORP D25 E12 F06 =J5 4059-472
Low temp. bleaching of fabrics with peroxy cpds. - 07600B/04
FMCC 03.10.77 FMC CORP D25 E19 =J5 4059-473
Di:sulphone derivs. - 78106A/43
FRRR 21.09.77 FERRERO P & CIA SPA D13 =SF 7802-797
Filled floatable spherical food prod. - 08058B/05
FUJI 14.09.77 FUJISAWA PHARM IND KK B02 C02 D13 =FR 2403-032
Aminal feed compsn. contain bicyclomycin - 22499B/12
FURI= 01.12.75 FUR IND RES INST D18 *SU -600-182
Animal skins liquid treatment apparatus - 46718B/25

GALL- 16.09.77 GALLAHER LTD A97 D18 =FR 2403-035
Preparing wrappings for smoking prods., esp. cigarette paper - 22053B/12
GEEN- 21.02.75 GEN ENVIRONMENTAL S D16 =CA 1055-864
Bacteria in waste water rendered dormant - 49825X/26
GENE 20.06.75 GENERAL ELECTRIC CO A26 D15 F09 H01 (A97 D16 D17) =GB 1547-454
Antifoaming polysiloxane compsn. - 02366Y/02
GENE- 08.11.77 GENENTECH INC B04 D16 =DK 7804-937
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =DK 7804-938
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =DK 7804-939
Recombining plasmid for transformation of bacteria - 35257B/19
*GENM 28.11.77 GENERAL MILLS INC B05 D21 E19 (E32) *US 4157-385
Dental plaque inhibiting compsn., esp. chewing gum - 47080B/25
GENO 01.11.77 GENERAL FOODS LTD D13 =NO 7803-532
Free-flowing coffee agglomerate leaving no sediment - 35665B/19
GERB 27.11.74 GERBER PRODUCTS CO D13 #IT 1029-630
Wet baby food prodn. - 11193X/06
*GIOV- 18.10.74 GIOVANNETTI S D13 *IT 1029-625
Dietary compsn. for chronic uraemia sufferers - B/25
GLAX 22.03.77 GLAXO LABS LTD B04 D16 =US 4157-278
Water soluble immunostimulating peptidoglycan material prepn. - 73900A/41
GLAX 06.12.77 GLAXO GROUP LTD A91 B02 D16 =NL 7811-868
Cephalosporin C isolation from fermentation broth - 44315B/24
GLAX 05.12.78 GLAXO GROUP LTD A91 B02 D16 =GB 2009-734
Cephalosporin C isolation from fermentation broth - 44315B/24
GOET/ 09.05.78 GOETZ S D15 #ZA 7802-635
Swimming pool purificn. using bio-catalyst - 53271A/29
GOOR 16.05.77 GOODRICH B F CO A14 D22 F01 =ZA 7802-690
Water absorbent compsn. for disposable nonwoven articles - 06200A/03
*GOOR 12.12.77 GOODRICH B F CO D15 *DT 2851-399
Lining for a concrete conduit carrying sea water - 45912B/25
*GORG/ 11.03.68 GORGIEV T B B05 D22 *SU -237-340
Bactericidal and bio-stimulating medicinal aq. compsn. - 46665B/25
GRAI 09.12.77 GRAIN PROCESSING CORP D16 =DT 2853-001
Prepn. of roasted non-malted barley - 27923B/15
GRAI 09.12.77 GRAIN PROCESSING CORP D16 =GB 2009-586
Prepn. of roasted non-malted barley - 27923B/15
GREC 20.10.77 GREEN CROSS CORP B04 D13 =J5 4059-343
Preventing intestinal diverticulum - 29674B/15

*HAAR 22.12.77 HAARMANN & REIMER GMBH B02 C02 D13 E13 *DS 2757-506
Piperonylidene-crotonamide derivs. prodn. - 45730B/25
HAYA/ 24.02.70 HAYASHI T D11 =DS 2108-720
Layered filled dough manufacture - 59304S/37
*HAYA/ 19.10.77 HAYASHI M A97 C03 D13 (C04 D22) *J5 4059-337
Moulded deodorant mfr. - 46507B/25
HAYB 01.04.68 HAYASHIBARA CO D17 =IT 1029-507
Preparation of starch syrups containing straight chain - 08152R/06
HAYB 28.00.69 HAYASHIBARA CO D17 =IT 1029-509
Prepn. of mixed sugars - 48950R/27
*HEDE/ 04.07.77 HEDEN C G D16 J04 *SW 7707-720
Disposable device for routine microbiological analysis - 46972B/25
HENK 03.10.77 HENKEL KG AUF AKTIEN A96 D22 F07 =SF 7802-801
Sanitary tampon - 29896B/16
HENK 02.12.77 HENKEL KG AUF AKTIEN A97 D25 (A26) =NL 7811-168
Powdered detergent contg. silicone antifoam - 42420B/23
HENK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 =DT 2755-126
Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
HENK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 =GB 2009-599
Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
HIES/ 20.05.77 HIESINGER E D15 J01 (D13 D16) =ZA 7802-936
Filter with filter aid on support fabric between chambers - 68980A/39
HITA 26.12.75 HITACHI KK D15 K07 =J7 9013-226
Pipe-clogging prevention in radioactive waste water treatment - 58239Y/33
*HITA 09.12.77 HITACHI KK D14 J01 *DT 2852-992
Continuous band filter for food prods. - 45949B/25
HOFF 15.09.76 HOFFMANN-LA ROCHE INC B05 D13 E24 =US 4157-345
Carotenoid inters. prepn. from 3-alkoxy cycloalk 2-enones - 97408X/52
HOFF 12.08.77 HOFFMANN-LA ROCHE INC D23 E15 =US 4157-352
2,2,4-Tri:methyl-cyclopent-4-en-1,3-di:one prepn. - 14605B/08
HOFF 14.09.77 HOFFMANN-LA ROCHE AG D21 E16 (E13) =FR 2403-077
Cosmetic compsn. having anti-seborrhoea activity - 22379B/12
HOFF 09.12.77 HOFFMANN-LA ROCHE AG D21 E13 =DT 2801-413
Cosmetic prods. contg. pyridine thiol cpds. and acetyl cysteine - 44049B/24
HOFF 09.12.77 HOFFMANN-LA ROCHE AG D21 E13 =GB 2009-600
Cosmetic prods. contg. pyridine thiol cpds. and acetyl cysteine - 44049B/24
*HOKK- 19.10.77 HOKKAIDO TOGYO KK D15 (D17) *J5 4058-949
Treating waste water derived in recovering sugar from beet - 46431B/25
HOLT 06.10.75 HOLLYMATIC CORP D12 =CA 1055-775
Automatic pressing of shapes from foodstuffs - 27580Y/16

ICIL 12.11.76 IMPERIAL CHEM INDS LTD A96 D21 L01 =DT 2759-602
Dental or orthopaedic powdery cement - 36916A/21
IDEK 21.02.74 IDEMITSU INDUSTRIES KK D15 =IT 1029-789
Ion exchange water purificn - 59107W/36
IDEK 17.10.77 IDEMITSU INDUSTRIES KK C03 D22 E15 G04 (D23 E14) =J5 4059-336
Sublimable compsns. contg. adamantane and another hydrocarbon - 69338A/39
IMPT 20.09.77 IMPERIAL GROUP LTD D18 J02 =FR 2403-105
Homogenisation of tobacco slurries etc. - 26381B/14
*INDF 23.03.78 INDIA COUNC OF SCI IND D15 *ZA 7801-723
Phosphate removal from organic waste water - B/25
INFL 26.06.75 INT FLAVORS & FRAGR INC D23 E13 =CA 1055-952
Isochromans prodn from 2-phenyl alkanols - 70332X/37
*INFL 17.03.78 INT FLAVORS & FRAGR INC D23 E15 (D18) *US 4157-351
1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-1,3 butane-di:one - 47067B/25
*INTE- 23.11.77 INTEROX CHEM LTD D12 *GB 2009-585
Treating bleached fish flesh to remove residual bleaching agent - 46017B/25
INTT 12.07.76 INT TELEPH & TELEG CORP D11 =US 4157-403
Microwave baking partly baked bread rolls - 08604A/05
*INUI/ 17.10.77 INUI E D25 *J5 4058-575
Soap for mfr. of artificial flowers - 46309B/25
ISOM- 07.03.78 ISOMEDICS INC B04 D16 K08 #ZA 7801-334
Cell analysis by radioactive biochemical staining - 42009A/23

JAAT 23.07.75 JAPAN ATOMIC ENERGY RES A96 B04 D16 (A14) =DS 2633-259
Prodn. of immobilized enzyme enclosed in porous polymer - 08032Y/05
JAGA 20.10.77 JGC CORP D15 E36 J04 =J5 4058-697
Regenerator for wet spent active carbon - 33878B/18
JETA- 20.06.77 JET AERATION CO A89 D15 J04 =BR 7707-534
Appts. for treating waste fluids with chemical agents - 40406A/23
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =SW 7810-761
Low temp. maturing dental glaze - 78140A/43
JOHM 14.09.77 JOHNS MANVILLE CORP D13 E33 (D23) =FR 2403-297
Coarse synthetic hydrous calcium silicate - 35797B/19

*KAMI/ 14.10.77 KAMIMAE H B04 C03 D13 (B06) *J5 4059-310
Remedy for pompholyx - 46492B/25
KAOS 06.06.73 KAO SOAP KK D25 E13 =J7 9012-925
Bathtub cleaning compsn - 11763X/07

KAOS 08 06 73 KAO SOAP KK D25 E17 = J7 9012-926
Liq detergent stabilisn - 56270W/34
KAOS 20 03 75 KAO SOAP KK D25 E12 (E16) = J7 9013-242
Ether sulphate based surfactant contg. detergents - 59685X/32
KARL/ 08.03.74 KARLSSON L H D23 = J5 0125-375
Piston of block candle press using paraffin powder - 62566W/38
KARL/ 08 03 74 KARLSSON L H D23 = J7 9013-271
Piston of block candle press using paraffin powder - 62566W/38
*KAZG= 11.03.77 KAZGIPROPISHCHEPROM D11 (D16) *SU -621-333
Dough for heavy pastry prepn. - 46934B/25
*KDFO= 22 10 76 KRASD FOOD IND RES D18 *SU -621-341
Increasing volume of tobacco - 46942B/25
KEMI- 28 10 77 KEMI OY D17 E17 F09 (E13) = NO 7803-638
Xylan, xylose and xylitol prodn. - B/25
*KEMI- 28.10 77 KEMI OY D17 E17 F09 (E13) *SW 7811-162
Xylan, xylose and xylitol prodn. - B/25
KEYS- 01 11.77 KEYSTONE FOODS CORP D12 = GB 2009-584
Densified frozen, meat-fibre slices with surface grooves - 35699B/19
*KIBU- 19 10 77 KIBUN KK D16 *J5 4059-391
Aerobic incubation of edible Basidiomycetes - 46513B/25
*KIKU- 18 10 77 KIKU MASAMUNE SHUZO D16 F09 J01 *J5 4058-270
Filter aid for use in filtering alcoholic drinks - 46290B/25
*KIME 22.10.77 KIMURA KAKOKI KK D15 M11 *J5 4060-235
Processing waste from electrolytic aluminium treatment - 46576B/25
KITA 05.02 76 KITASATO INST B04 C03 D16 = US 4157-389
Pseudomonas aeruginosa toxoid vaccine - 57979Y/33
KITA 05.02.76 KITASATO RES INST B04 C03 D16 = US 4157-389
Pseudomonas aeruginosa toxoid vaccine - 57979Y/33
KLEI- 21 09 72 KLEIN H G KG D11 = DS 2246-214
High-frequency baking oven - 25189V/14
KLEI- 13.06.73 KLEIN A KG D15 = CA 1055-776
Dewatering of sludge after pretreatment - 00922W/01
*KOBA- 20.10.77 KOBAYASHI DENCHI KE D15 E34 J03 *J5 4058-685
Electrode assembly for use in brine electrolysis - 46348B/25
*KOKU- 19.10.77 KOKUZEI-CHO CHOKAN D16 *J5 4059-391
Aerobic incubation of edible Basidiomycetes - 46513B/25
*KRAU 00.00.76 KRAUS-MAFFEI AG D15 *DT 2754-667
Control mechanism for gutter grid cleaning fork - 45808B/25
KRUN 22.12.71 KRAFTWERK UNION AG D15 = SU -621-306
Magnetic filter - 31605U/22
KULZ 02 06.77 KULZER GMBH A96 D22 L02 (A14) = ZA 7802-935
Material for prepn. of bone cement - 72816A/41
*KUME= 28 03 77 KAUN MEDICAL INST B07 D22 *SU -621-353
Surgical materials and instruments treatment appts. - 46946B/25
KURE 16.09.77 KUREHA KAGAKU KOGYO C03 D16 = FR 2403-027
Nitrogen-contg. polysaccharide active against plant viruses - 26389B/14
KURT/ 23.06.67 KURTZ L B07 D22 = DT 1792-806
Impregnating articles with germicidal cpds - 32699R/19
*KUWA/ 15.10.77 KUWABARA H D22 J01 (D14 D15) *J5 4056-980
Deodorising appts. for gases from drying waste, fertiliser or fodder - 46111B/25
*KYOW 18 10.77 KYOWA FERMENTATION KK B04 D16 *J5 4059-202
Antibiotic SU-2 - 46454B/25

LABO 02.12.77 LABOFINA SA D23 (D13) = NL 7809-132
Hydrogenation catalyst for oils, esp. cooking oils - 27888B/15
LABO 02.12.77 LABOFINA SA D23 (D13) = NL 7809-136
Hydrogenating oils, esp. cooking oils, using nickel catalyst - 27889B/15
LEBR/ 05.12.77 LEBRUN C D11 = NL 7811-839
Loading carriage and shelf rack for baking oven - 44310B/24
*LEUZ/ 08.12.77 LEUZE G A88 D18 *DT 2849-676
Roller used in footwear mfr. e.g. processing of pieces of leather - 45906B/25
LICN 19.10.77 LICENTIA PATENT GMBH D15 J04 K08 = J5 4058-682
Liquid irradiation device - 33503B/18
LIFE- 12 12 77 LIFE SAVERS INC D13 = DT 2853-602
Sugarless candy with improved flavour and sweetness - 42347B/22
LIFE- 12 12.77 LIFE SAVERS INC D13 = GB 2009-582
Sugarless candy with improved flavour and sweetness - 42347B/22
*LIFE- 24 04 78 LIFE SAVERS INC A97 D13 E15 *US 4157-401
Chewing gum contg. limonene deriv. - 47084B/25
LINM 17 09 77 LINDE AG D16 (D13) = FR 2403-383
Aerobic fermentation control - 26251B/14
LIOC 20.10 77 LION DENTIFRICE KK B06 D21 E32 = J5 4059-339
Caries-preventing dental treatment compsn. - 35643B/19
LIOY 19 12 74 LION FAT & OIL KK D25 E19 = J7 9013-241
Detergent compsn. for household use - 60365X/32
*LIOY 15 10 77 LION FAT & OIL KK A97 D25 E16 (A25 E01 E12) *J5 4057-504
Finishing agent for dry cleaning - 46204B/25
LOCA/ 16 09 77 LOCATELLI J D14 = FR 2403-501
Safety valve for pressure cookers - 24171B/13
*LOCH- 08 12 77 LOCHER & CO C03 D13 *DT 2852 215
Cattle lick in carton sleeve with tear/off line - 45926B/25
LOTT 22.11.77 LOTTE KK D13 = US 4157-402
Chewing gum compsn. contg. liq. centre - 42693B/23
LYCK 18.10.77 LYCKEBY STARKEISEFORADIN D13 = SW 7808-870
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09

MACC/ 05 02 70 MACCOLLOM M S D13 #IT 1029-511
Fractionating milk fats having variable m pts - 59271R/33
*MAEK- 17.10.77 MAEKAWA SEISAKUSHO KK D13 E17 G04 (E34)
4058-245
Refrigerant mixt. for wet freezing of food - 46288B/25
MATC- 19.10.77 MATCON RADGIVENDE I D12 = SW 7810-879
Small fish processing method - 33640B/18
*MEAT= 10.03.77 MEAT IND RES INST D12 *SU -621-335
Prepn. of sausage stuffing - 46936B/25
MEDI- 15.04.70 MEDITRON INC D13 = IT 1029-517
Chewing gum - 67576S/42
MEGG 19.09.77 MEGGLE MILCHIND GMB D13 = FR 2403-030
Protein-rich snack-like foamed food prepn. - 24140B/13
MERA- 29.09.77 MERAK SPA A94 D18 F01 (A17) = SF 7802-930
Olefin polymer fibre cigarette filter - 28262B/15
*MERA/ 30.11.77 MERAK S A32 D21 (A96) *DT 2753-448
Deep-drawn mould for accurately casting small articles - 45745B/25
MERI 19.09.77 MERCK & CO INC B04 C03 D16 = SF 7802-769
Prepn. of antigenic and immunogenic herpes virus sub-unit - 26475B
*MIME= 02.02.76 MINSK MEAT DAIRY D12 *SU -621-334
Bleeding slaughtered animals and birds - 46935B/25
*MIRA- 23.06.77 MIRANOL CHEMICAL A96 D21 F06 (A87) *US 4157-38
Polycationic and polyquaternary ammonium ionene(s) - 47082B/25
*MITB 18.10.77 MITSUI SHIPBUILDING ENGG D15 J09 *J5 4058-973
Incineration of chromium-contg. sludge in fluidised incinerat
46435B/25
MITN 15.07.76 MITSUBISHI GAS CHEM IND D13 E36 M14 (D23) =
9013-432
Dithionite deoxygenating compsn. contg. fibrous material - 20198A/
*MITN 14.10.77 MITSUBISHI GAS CHEM IND D16 *J5 4059-390
Yeast culture - 46512B/25
*MITP 19.10.77 MITSUBISHI PETROCH KK D15 J01 *J5 4058-950
Electrolytic removal of harmful metals from effluent - 46432B/25
MITP 08.11.77 MITSUBISHI PETROCH KK B04 D16 = DK 7804-954
Polysaccharide prepn. from Pseudomonas polysaccharogene
82126A/46
MITP 08.11.77 MITSUBISHI YUKA PHARMACE B04 D16 = DK 7804-954
Polysaccharide prepn. from Pseudomonas polysaccharogene
82126A/46
*MITR 18.10.77 MITSUBISHI RAYON KK D15 J01 *J5 4057-481
Granular oil-contg. waste water treatment material prodn. - 46185B/
*MITR 18.10.77 MITSUBISHI RAYON KK D15 J01 *J5 4057-482
Granular material for treating waste water contg. oil - 46186B/25
*MITR 20.10.77 MITSUBISHI RAYON KK A81 D15 J01 *J5 4058-952
Coagulation of oil-contg. waste water - 46434B/25
*MITR 21.10.77 MITSUBISHI RAYON KK D15 J01 *J5 4060-287
Regenerating granular material from oil-contg. waste water treatme
46597B/25
*MITS- 19.10.77 MITSUBISHI YUKA ENG D15 J01 *J5 4058-950
Electrolytic removal of harmful metals from effluent - 46432B/25
*MITU 17.10.77 MITSUBISHI CHEM IND KK B01 D16 *J5 4059-395
Biological prodn. of androstane cpd. - 46517B/25
MITU 22.10.77 MITSUBISHI CHEM IND KK B04 D16 J04 = GB 2009-937
Fluid glucose content measurement - 33664B/18
*MLFO= 24.12.76 MOLD FOOD IND RES D13 *SU -621-337
Preservation of fruit and vegetables - 46938B/25
*MOCH/ 07.12.77 MOCHIDA N A96 D21 (A17 A26) *DT 2852-988
Solid powder stick for cosmetics and toiletry use - 45948B/25
MODR/ 20.10.77 MODROVICH I E A96 B04 C03 D16 #SW 7711-853
Stabilised diagnostic compsn. for glucose - 21886A/12
*MOFA= 05.07.76 MOSC FATS RES INST D13 E17 *SU -620-474
High concn. mono-glyceride sepn. for use in food prods. - 46801B/25
MOLN 15.02.74 MOLNLYCKE AB D22 F04 = IT 1029-692
Disposable napkin, sanitary towel, or medical compress - 44452W/27
*MOMD 03.03.77 MOSCOW MEAT DAIRY INST D13 *SU -621-340
Freezing liquid products in vacuum with formation of hollow granul
46941B/25
MONT 03.08.73 MONTEDISON SPA D18 E33 = CA 1055-655
Hides treated with basic aluminium polychlorides - 13081W/08
MORG 09.12.77 MORINAGA MILK KK B04 D16 #DT 2755-037
Bifidus powder contg. lactulose - 09345A/05

*NADA 16.12.67 NATIONAL DAIRY PROD D13 *IT 1029-505
Tomato sauce prodn. - B/25
NATR 28.09.77 NATIONAL RES DEV CORP B04 C03 D16 = J5 4059-317
Increasing the immunogenicity of an antigen - 29725B/15
NATW 27 04.77 NATTERMANN A & CIE GMBH B04 D13 (D21 D23) = ZA 7802 373
Purified phosphatidyl-choline or lecithin oils - 63459A/36
NEDR- 28.10.77 NEDRE NORRLANDS PRO D13 = SW 7712-167
Whey based products prepn. from milk serum from cheese or caseina
16020B/09

OP- 31.07.69 NEO PROTEINS INC D11 =IT 1029-512
High protein bakery product - 10117S/05
ST 05.03.74 SOC PROD NESTLE SA D13 E16 (E14) =IT 1029-709
Treatment of foodstuff poor in lysine by addn. of L-lysine - 50941W/31
ST 29.09.77 SOC PROD NESTLE SA D13 (D12) =J5 4059-360
Textured food prod. similar to cooked meat - 14162B/08
ST 12.12.77 SOC PROD NESTLE SA D13 =DT 2759-047
Cheese mfr. - 84045A/46
CA 14.01.74 NIPPON CARBIDE KOGY KK A97 D15 =DS 2501-262
Effluent treatment with melamine resin - 49760W/30
IDS 01.12.71 NIHON DENSHI KK B07 D22 =DS 2258-940
Microwave sterilizer plant - 35367U/25
IEM- 11.09.73 NIHON EMARUJON KK A97 D21 E19 =J7 9012-908
(N)-acyl neutral amino acid ester oil-soluble surfactants - 40431Y/23
IKI= 05.03.77 NIKITSK BOTANICAL D22 E14 (D13 D21) *SU -621-351
Plumbagin antimicrobial additive for food and cosmetics - 46945B/25
IRA 12.09.77 UNITIKA KK A21 D15 F01 J01 (A14 A97) =GB 2009-763
Etherified and chelated phenolic resin - 06095B/04
ISB 20.10.77 JAPAN TOBACCO & SALT PUB A97 D18 *J5 4059-400
Binder for reformed tobacco leaves - 46519B/25
ITL 17.10.77 NITTO ELECTRIC IND KK A88 D15 J01 *J5 4057-475
Selectively permeable membrane prodn. - 46180B/25
NMHB 29.08.77 NORDISCH MASCH R BAADER D12 *DT 2738-845
Appts. for sepg. bone structure from fish - 45743B/25
NNSH 21.11.77 NIPPON SHINYAKU CO B04 D16 =GB 2009-598
Hypoglycaemic piperidine deriv. moranolin prodn. - 40914B/22
NORM/ 15.11.77 NORMINGTON S M D14 *ZA 7706-795
Appts. for sorting articles by size - 47128B/25
NOSA 23.06.71 NIPPON NOSAN KOGYO C03 D13 =J4 8013-177
Feed for silk worms - 46652B/25
NOSA 23.06.71 NIPPON NOSAN IND KK C03 D13 *J7 9013-398
Feed for silk worms - 46652B/25
NOVO- 03.11.77 NOVOKUIBYSHEVSKY FILIAL A60 B07 D13 E14 (B05) #DK 7704-899
Methyl-di:tert.-butyl:phenol purification - 49676A/28
NOVO= 21.11.77 NOVOKUIB GIPROKAUCHUK A60 B07 D13 E14 (B05) #BR 7707-723
Methyl-di:tert.-butyl:phenol purification - 49676A/28
*NUCL= 10.12.76 NUCLEAR PHYSICS RES D16 H01 *SU -620-581
Drilling mud cleaning - 46856B/25

*OCTR- 12.06.77 OCTROPA INT OCTROOI B04 C03 D16 *US 4157-390
Vaccine for reducing incidence of neonatal diarrhoea in mammals - 47083B/25
*ODAM- 19.10.77 ODAMA GOMEI KAISHA D15 (D17) *J5 4058-951
Biological purificn. of starch- and/or sugar contg. waste water - 46433B/25
OLIN 18.10.71 OLIN CORP B03 C01 D21 E12 (D22) =IT 1029-522
Bis(2-pyridyl-1-oxide) disulphide adducts with alkaline - 25913U/19
OREA 14.09.77 L'OREAL SA A23 D21 (A96) =FR 2403-353
Hair cosmetic compsns. contg. poly:aspartic acid derivs. - 26385B/14
*OREA 16.12.77 L'OREAL SA A96 D21 E13 *BE -872-762
Cosmetic compsn. for reinforcing the nails - 45689B/25
*OREA 27.04.78 L'OREAL SA A96 D21 *FR 2403-076
Cosmetic compsn. for skin and hair treatment - 45979B/25
*ORIY 19.10.77 ORIENTAL YEAST KK B04 D16 *J5 4058-490
Compsn. for use in cholesterol determn. - 46305B/25
*ORIY 19.10.77 ORIENTAL YEAST KK B04 D16 *J5 4058-491
Compsn. for use in glucose determn. - 46306B/25
*ORTO/ 13.12.77 ORTON T B B05 D14 J04 K08 *GB 2009-924
Resonator for receiving and detecting Ortonarays - 46053B/25
*OSHI- 17.10.77 OSHIO SANGYO KK D15 L02 *J5 4057-304
Base material for asphalt concrete pavement - 46133B/25
OVTS/ 12.11.75 OVTSCHINNIKOV V G D22 E13 #DS 2550-828
Bactericidal (1,3)-dichloro-(5,5)-dimethyl hydantoin compsn. - 29594Y/17

*PACC/ 17.11.77 PACCOLA A A C04 D16 *BR 7707-682
Decantation of residues from distn. of alcohol - B/25
PAPI- 12.09.74 PAPIRIND FORSKNING D22 F09 =DS 2539-570
Mechanical pulps for producing water-absorbent paper - 09285X/06
PATE- 11.11.77 PAT TECHN INC D11 =GB 2009-583
Single pack dried baking mixt. - 41693B/22
PETE- 22.11.77 PETERSON/PURITAN IN B07 D21 E19 G04 =GB 2009-617
Water-in-oil emulsion contg. modified montmorillonite - 40918B/22
*PETT/ 18.10.77 PETTERSSON L D12 *SW 7711-703
Electric shock appts. to stun pigs before slaughter - B/25
PFIZ 09.08.74 PFIZER INC B04 D16 J04 =IT 1029-895
Impregnated disc dispenser in ganged antibiotic test appts. - 56928W/34
*PFIZ 16.12.77 PFIZER INC B03 D13 E13 *BE -872-796
Erythorbic and ascorbic acid 6-fatty acid mon:ester prepn - 45702B/25
PHIP 02.12.77 PHILLIPS PETROLEUM CO C03 D16 (D13) #NL 7713-382
Single cell protein prodn. from mixed thermophilic culture - 44073A/25
PHIP 05.12.77 PHILLIPS PETROLEUM CO C03 D16 (D13) #DT 2754-072
Single cell protein prodn. from mixed thermophilic culture - 44073A/25
*PIND/ 05.04.76 PINDER J A D16 *CA 1056-073
Compost mfg. container - 45723B/25
*PIND/ 05.04.76 PINDER J A D16 *CA 1056-074
Leaf composting appts. - 45724B/25
PITM 21.11.74 PITMAN-MOORE INC B04 C03 D16 =CA 1055-844
Attenuated feline calicivirus vaccine prepn. - 24210X/13
POLY- 28.10.77 POLYPUR FORSALJNIN D15 =NO 7803-527
Agitator for biological toilet - 39310B/21
POLY- 28.10.77 POLYPUR FORSALJNING D15 =SW 7712-193
Agitator for biological toilet - 39310B/21
*POTA= 21.03.77 POTATO FOODSTUFFS D13 *SU -621-339
Intermediate potato product prodn. - 46940B/25
PROC 25.05.72 PROCTER & GAMBLE CO D13 E13 =DS 2326-444
Enriching protein food stuffs - 76645U/50
PROC 02.10.72 PROCTER & GAMBLE CO D21 =IT 1029-601
Hair curling - 30107V/16
PROC 25.02.74 PROCTER & GAMBLE CO D13 =IT 1029-837
Beverage carbonator - 59128W/36
PROC 21.05.74 PROCTER & GAMBLE CO A96 D21 =US 4157-387
Abrasive compsn. esp. for dentifrice - 31351B/16
*PROC 07.08.78 PROCTER & GAMBLE CO A97 D25 E19 F06 (A25 A87) *US 4157-307
Liq. fabric conditioning compsn. for home laundry use - 47043B/25
*PROT= 18.05.73 PROTEIN BIOSYNTH D16 *SU -497-836
Nutrient medium for culturing fungal cellulase producers - 46700B/25
PURX 08.11.74 PUREX CORP LTD D25 =CA 1055-863
Solid laundering pre-spotter - 35809X/19

*RACK- 18.10.77 RACK ENG KK C04 D15 (D16) *J5 4060-168
Organic fertiliser prodn. from human waste - 46556B/25
*RACK- 18.10.77 RACK ENG KK C03 D13 L02 (C04 D15 D16 D22) *J5 4060-169
Treatment of waste water for use as fertiliser or feed - 46557B/25
*RACK- 18.10.77 RACK ENG KK C03 D12 (C04 D13) *J5 4060-170
Waste blood deodorisation and conversion to animal feed or fertiliser - 46558B/25
RALS 26.08.74 RALSTON PURINA CO D12 =US RE30-023
Protein fortification of extra pumped meats - 86891X/46
*RANB/ 27.10.77 RANBY M G C03 D13 *SW 7712-156
Milk substitute with reduced immunogenic protein content for babies - B/25
RATI- 19.09.77 VEB RATIONAL HALLE D16 =FR 2403-385
Plant extn. esp. for spirits industry - 24168B/13
*RAUH- 07.12.77 RAUH D APPARATEBAU A88 D15 *DT 2754-488
Purification circuit for swimming pool water - 45779B/25
RECK 22.06.74 RECKITT & COLMAN PR D25 E12 (E34) =CA 1055-801
Abrasive, metal-cleaning compsn. - 09850Y/06
REDK- 25.10.77 REDKEN LABS INC A96 D21 =ZA 7802-726
Hair cosmetic compsns. for treating damaged hair - 33589B/18
REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =ZA 7802-805
Plasmid contg. gene from a higher organism - 70827A/40
REGC 23.09.77 UNIV OF CALIFORNIA B04 D16 =SF 7801-676
Purifying nucleotide sequences for insertion into microorganisms - 80247A/45
REGC 23.09.77 UNIV OF CALIFORNIA B04 D16 =ZA 7802-933
Purifying nucleotide sequences for insertion into microorganisms - 80247A/45
*REID/ 30.03.73 REID B J D13 *US 4157-017
Continuous prepn. of soft melt-resistant frozen confection - 46994B/25
*RHEE 22.06.78 RHEEM MFG CO D12 *DK 7802-812
Filler funnel for sausage machine - B/25
*RHON 19.09.77 RHONE-POULENC INDUSTRIES A97 D15 F09 (A14) *FR 2403-303
Treatment of effluent esp. soda lye from pulp prodn. - 45992B/25
RHON 07.10.77 RHONE-POULENC INDUSTRIES B03 C02 D16 =J5 4059-396
Antibiotic 37454 RP for control of coccidiosis - 30048B/16
RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A25) =DK 7804-904
Anti-soil and anti-redeposition detergent compsn. - 33374B/18
*RIAL/ 06.06.75 RIALDI G D21 *IT 1029-651
Dentifrice compsn. - B/25
RIES/ 09.12.77 RIESS G A96 D21 =DT 2754-917
Dental surgical implant for securing crowns, bridges etc. - 24021B/13
*RIKA 24.10.75 RIKAGAKU RES LABS KK B05 D23 E19 *J5 4059-213
Oxidative prodn. of ester cpds. - 46457B/25
*RIKA 14.10.77 RIKAGAKU RES LABS KK D16 *J5 4059-392
Enzyme which decomposes DNA - 46514B/25
*RING/ 05.07.77 RING LM D15 H03 *SW 7707-768
Treatment of floating oil slick - 46973B/25
RITP 20.12.73 SYBRON CORP A96 D21 =IT 1029-637
Implant matl. for direct insertion into tooth sockets after extraction - 46490W/28
*ROCH/ 18.05.78 LA ROCHELLE P J D21 *US 4157-386
Soft, chewable dentifrice lozenge - 47081B/25
ROSE/ 02.01.76 ROSENBLATT S A96 D22 (A14) =CA 1056-100
Soft sponges with high absorptive capacity - 31033Y/18
ROTO- 31.10.77 ROTOCROP INT LTD D16 =NO 7803-655
Machine to chop vegetable waste for compost - 18082B/10

ROUS 20.01.72 ROUSSEL UCLAF B01 C03 D13, =SU -621-305
Increasing egg yields - 44628U/32

ROUS 20 02 74 ROUSSEL UCLAF A96 D22 F07 (A14) =IT 1029-800
Disposable absorbent articles, esp. babies' napkins - 57538W/35

*SACH- 08.12.77 SACHS SYSTEMTECHNIK D15 *DT 2754-659
Appts. purifying water by anodic oxidn. - 45805B/25

SAKA 30 06.77 OTSUKA PHARM KK B02 D16 =SF 7801-517
Deca:hydro-naphthalene-spiro-benzofuran derivs. - 84059A/47

SAKA 30.06.77 OTSUKA PHARM KK B02 D16 =ZA 7802-683
Deca:hydro-naphthalene-spiro-benzofuran derivs. - 84059A/47

SALV- 07 10 77 SALVE SA D22 =SF 7802-745
Surgical bandage pack - 29976B/16

SAND- 23 05 75 SANDO IRON WORKS CO C03 D12 H09 (C04 D13 D15) =GB 1547-582
Treatment of putrefactive meat and fish waste - 75728X/41

SCHD 20 10.77 SCHERING AG D15 M25 (M14) =GB 2009-791
Metal recovery from chemical surface treatment waste waters - 35468B/19

SCHI/ 16.09.75 SCHINKO K D14 =US 4157-065
Continuous fluid extractor - 20309Y/12

*SCHL- 02 12.77 SCHLEICHER & SCHULL A88 D15 J01 *DT 2753-864
Pressure filter for reverse osmosis etc. - 45753B/25

SCHO- 28.10.77 SCHOXI AG D11 =NO 7803-634
Whipped foam for cakes - 72923A/41

SCHO- 28.10.77 SCHOXI AG D11 =SW 7810-956
Whipped foam for cakes - 72923A/41

SCHO- 02.11.77 SCHOKOLADEN-VERARBE D13 =DK 7804-869
Continuous tempering of chocolate mass - 33364B/18

SCHO- 01.12.77 SCIENTIFIC HOSP SUP B04 D16 #NL 7713-306
Petri dish multi-disc test strips for microbiological research - 38509A/22

SCHW- 12 09.74 SCHWARZHAUPT KG B04 D16 =US 4157-279
Determination of iso-enzymes of lactate dehydrogenase - 09287X/06

*SCHZ 18.10.77 SCHWEIZER FERMENT AG D21 (D16) *SW 7711-735
Oral hygiene compsn. contg. mutanase - B/25

SCLA- 02.06.77 ST CLAIR FISHERIES D12 =FR 2403-029
Fish heat recovery from fillet remnants - 91674A/51

SEAR 28.03.77 SEARLE G D & CO B04 C03 D16 =ZA 7801-758
Antimycotic compositions - 74694A/42

*SELW- 00.00.77 SELWIG & LANGE D17 *DT 2755-130
Mashing sugar crystals continuously for subsequent processing - 45855B/25

*SENP 14.10.77 SENJU SEIYAKU KK D25 E19 (E37) *J5 4056-852
Cleaning fluid for contact lens - 46067B/25

*SETB 15.09.77 SERVICE EXPL IND TABACS D18 *FR 2403-033
Prepn. of tobacco using alkali metal salt, esp. carbonate - 45975B/25

SHIE 12.12.77 SHINETSU CHEM IND KK C02 D13 E13 =DT 2845-833
Tetra:hydro-pyranone derivs. - 44451B/24

SHIE 12.12.77 SHINETSU CHEM IND KK C02 D13 E13 =GB 2009-747
Tetra:hydro-pyranone derivs. - 44451B/24

SHIS/ 16.09.77 SHISHKOVA Z P C03 D16 (D13) #SF 7702-725
Culture media contg. vegetable matter and peat hydrolysates - 26539B/14

*SHOW 22.10.77 SHOWA DENKO KK D15 M11 *J5 4060-235
Processing waste from electrolytic aluminium treatment - 46576B/25

SLIT 08.02 65 SCHLITZ J BREWING CO D16 =IT 1029-503
Reconstitution of concentrated wort - 25672R/16

SMHL 20.10.77 SIMON-HARTLEY LTD B04 D16 (D13 D15) =SW 7810-828
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08

SNAM 14.09.77 SNAMPROGETTI SPA D15 =FR 2403-299
Multistage evapn. plant to desalinate sea-water, etc. - 18035B/10

*SODE- 23 09.76 SODETE D15 *FR 2403-305
Packaged treatment plant for aerating and decanting waste water - 45993B 25

SODR- 09.12 77 SODRA SKOGSAGARNA A D22 F09 =DT 2852-656
Feed arrangement of continuous sheets of pulp to dry-laying machine - 44035B/24

SOMA- 25.10.77 SOMAT CORP D15 =SW 7810-232
Dewatering sewage sludge - 33597B/18

STAL 25 02 74 STALEY A E MFG CO D16 =IT 1029-805
Pullulanase microbiological prodn - 55651W/34

STAU 20 03 74 STAUFFER CHEMICAL CO D13 =CA 1055-931
Protein recovery from acid solns. - 65861W/40

*STAU 15 12 77 STAUFFER CHEMICAL CO D13 *BE -872-781
Substitutes for egg albumin and skimmed milk solids in food prods. - 45698B/25

STER 15.09.77 STERLING DRUG INC D22 J01 (D15) =FR 2403-102
Purifying odorous waste gases, esp. from water treatment - 20017B/11

STER 19.09.77 STERLING DRUG INC D15 =FR 2403-304
Treating aq. effluent contg. organic matter with oxygen - 20019B/11

STER 19.09.77 STERLING DRUG INC D15 =FR 2403-306
Treating waste water using rotating biological contactor - 22060B/12

STER- 03 11 77 STERLITAMAXKY OPYTN A60 B07 D13 E14 (B05) #DK 7704-899
Methyl-di tert.-butyl phenol purification - 49676A/28

STER= 21.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05)
7707-723
Methyl-di:tert.-butyl:phenol purification - 49676A/28

*SUKA 19 10.77 SUGAI KAGAKU KOGYO D16 E14 *J5 4059-386
Biologically decomposing naphthalene sulphonic acid - 46511B/25

*SULZ 07.12.77 GEBRUDER SULZER AG D14 K08 *DT 2754-463
Continuous irradiation chamber esp. for granular fodder - 45776B/

SULZ 02.02.78 GEBR SULZER AG A88 D14 J01 =SF 7802-755
Press filter of moving belt type - 28267B/15

SUME 01.07.77 SUMITOMO ELEC IND KK A96 B07 D22 (A14) =
7807-436
Vascular PTFE prosthesis - 78441A/44

*SUME 18.10.77 SUMITOMO ELEC IND KK D15 J01 *J5 4058-686
Regeneration of semipermeable membrane - 46349B/25

*SUMO 15.10.77 SUMITOMO CHEMICAL KK D15 J04 *J5 4056-893
Determn. of nitrogen and/or carbon content of waste water - 46068

*SUNZ 19.10.77 SUN-STAR HAMIGAKI K A96 D21 E16 *J5 4059-340
Dentifrice compsn. with good foaming characteristics - 46509B/25

*TAIF 17.10.77 TAIYO FISHERY KK D13 E17 G04 (E34) *J5 4058-245
Refrigerant mixt. for wet freezing of food - 46288B/25

*TAIY- 17.10.77 TAIYO KORYO KK D23 E15 *J5 4059-253
Cyclic terpene ester cpds. prepn. - 46474B/25

*TAIY- 17.10.77 TAIYO KORYO KK D23 E15 *J5 4059-254
Cyclic terpene ester(s) prepn. for use as perfumes - 46475B/25

*TAIY- 17.10.77 TAIYO KORYO KK D23 E15 *J5 4059-257
4-(4'-Isopropyl-1'-cyclohexyl)-2-butanone prodn. - 46477B/25

*TAKE 18.10.77 TAKEDA CHEMICAL IND KK B04 C03 D16 *J5 4059-316
Stable freeze-dried encephalitis Japonica virus vaccine - 46494B/25

*TAMU/ 17.10.77 TAMURA S D15 *J5 4056-979
Fresh water prodn. by evapn. of sea water, using tube heat exchan
46110B/25

TANA 01.12.71 TANABE SEIYAKU KK B07 D22 =DS 2258-940
Microwave sterilizer plant - 35367U/25

TATE- 29.12.75 TATEISHI ROKA KOGYO D15 J01 =J5 2081-764
Filter material for treating waste water - 46637B/25

*TATE- 29.12.75 TATEISHI ROKA KOGYO D15 J01 *J7 9013-028
Filter material for treating waste water - 46637B/25

TATL 18.04.75 TATE & LYLE LTD A60 D25 E13 G02 =CA 1055-933
Purified saccharose fatty acid ester surfactant - 81230X/44

*TAYL/ 18.05.78 TAYLOR M A D23 E14 G02 (D13) *US T983-004
Stabilised wax compsn. for coating food, carton liners etc. - 46983B/

TECH- 21.07.77 TECHNIM SA D15 E33 J01 =J5 4060-272
Emulsion or suspension breaking compsn. - 10358B/06

TEEP 28.09.77 TEE PAK INC A97 D12 =SF 7802-882
Internally coated cellulose sausage casings - 13989B/07

*TEIJ 17.10.77 TEIJIN KK D15 E36 G06 J03 *J5 4058-028
Bromide removal from waste photographic developer soln. - 46283B/

*TEKN- 12.12.77 TEKNOTERM SYST D15 *DT 2853-035
Optimising heat energy exploitation in sewage treatment pla
45952B/25

TEXB- 11.06.73 TEXAS BRINE CORP A97 D16 H01 (A11 D17) =CA 105
685
Drilling fluids contg. polysaccharide - 82813X/44

TEXC 31.10.77 TEXACO DEV CORP D15 =NO 7803-445
Treating waste water contg. cyanide and formate(s) - 33367B/18

*TEXT= 14.10.76 TEXTILE-HABERDASHER D22 F04 *SU -621-348
Human blood vessel replacement - 46944B/25

THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =DK 7804-906
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19

TIVE- 14.09.77 TIVET DEVS LTD D12 =FR 2403-028
Moulding sausages etc. with coherent skin-like surfaces - 22039B/12

*TOKE 15.10.77 TOKYO SHIBAURA ELEC LTD D15 E36 H05 M14 *J5 4056
952
Cooling water for use in petroleum purificn. plant - 46100B/25

*TOKE 15.10.77 TOKYO SHIBAURA ELEC LTD D15 E31 J01 *J5 4057-530
Treating hexavalent chromium-contg. paint sludge to render it harmle
46222B/25

*TOKE 20.10.77 TOKYO SHIBAURA ELEC LTD D22 J01 *J5 4058-681
Appts. for deodorising malodorous gas - 46346B/25

*TOKE 21.10.77 TOKYO SHIBAURA ELEC LTD D15 E16 (E35) *J5 4060-286
Adsorbent for alkaline gases - 46596B/25

*TOMI/ 17.10.77 TOMII T D13 J01 *J5 4057-471
Removing bad odours from frying oils and fats - 46177B/25

TOOH 22.04.77 QUEENS UNIV KINGSTON ONT B03 D13 E13 =ZA 7802-282
L-Sucrose useful as non-nutritive sweetener - 61925A/35

*TORA 24.08.76 TORAY INDS INC D17 *US 4157-267
Continuous sepn. of fructose from glucose - 47026B/25

TOYJ 27.04.76 TOYO SODA KK A85 D15 J03 (A91) =GB 1547-534
Fluorinated cation exchange resins - 83238Y/47

*UAGR= 04.02 76 UKR AGRIC ACAD A97 C01 D13 (C04) *SU -621-366
Water soluble substances encapsulated in cellulose acetate etc.
46957B/25

*UNBR- 28.09.64 UNITED BRANDS CO D13 *DS 1492-985
Pelletising powdered foodstuffs, e.g. cocoa powder - 45725B/25

C 27.03.74 UNION CARBIDE CORP D12 =CA 1055-770
hirred sausage casing stick with end plug - 47636W/28
C 27.03.74 UNION CARBIDE CORP D12 =CA 1055-771
hirred sausage casing stick with end plug - 47636W/28
C 30.10.74 UNION CARBIDE CORP A96 D22 (A25) =CA 1056-092
/ater absorbing polyoxyalkylenes - 35973X/20
C 28.04.75 UNION CARBIDE CORP B02 C02 D23 E13 (B05 C03 E14)
4157-445
Quinoline and aniline cpds. synthesis - 47104B/25
C 03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) =DK
4-905
eelable cellulosic casing for food prods. - 37518B/20
IC 03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) =NO
3-688
Peelable cellulosic casing for food prods. - 37518B/20
IC 15.12.77 UNION CARBIDE CORP A97 D12 *BE -872-775
Tubular cellulosic wrapping, esp. for sausages - 45696B/25
IIL 11.10.76 UNILEVER NV A97 D25 E12 (A18 A25 E34) =ZA 7706-029
Liquid detergent compsn. - 25248A/14
IIL 15.10.76 UNILEVER NV A96 B05 D21 (A25) =ZA 7706-160
Compsn. for treating acne contg. an alkyl lactate - 28816A/16
NIL 15.09.77 UNILEVER NV D24 E17 =FR 2403-382
Soap tablets contg. at least one per cent free carboxylic acid - 20034B/11 .
NIL 18.10.77 UNILEVER NV A96 D22 (A25) =SW 7810-830
Particulate absorption material with improved wettability with blood - 31891B/17
NIL 31.10.77 UNILEVER NV D25 E19 =NO 7803-656
Fabric softener compsn. - 33373B/18
NIL 07.12.77 UNILEVER NV B06 D21 E34 (E33) =DT 2852-124
Anticaries tooth-paste contg. sodium mono:fluorophosphate - 44416B/24
NIL 19.12.77 UNILEVER NV D23 E17 *BE -872-854
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
NIL 05.12.78 UNILEVER NV B06 D21 E34 (E33) =GB 2009-596
Anticaries tooth-paste contg. sodium mono:fluorophosphate - 44416B/24
NIS- 01.11.77 UNISCOPE INC A97 C03 D13 =NO 7801-048
Lubricating binder for animal feeds - 65374A/37
JNIU 21.08.76 UNIV OF GLASGOW C03 D13 (C04) =DS 2737-360
Solns. contg. urea water and calcium chloride - 14033A/08
JNTC 17.10.77 ECODYNE CORP D15 =SW 7810-668
Clarification tank with circumferential inlet trough - 89470A/49
JNVO 25.11.77 UOP INC A88 D15 E36 J01 *DT 2850-998
Gas separation membrane with semipermeable thin film - 45910B/25
UPJO 19.09.77 UPJOHN CO B04 C03 D16 (D22) =FR 2403-348
Antibiotic 354 and its salts and derivs. - 09910B/05
USAS 22.08.73 NAT AERO & SPACE ADMIN D15 =J5 0054-155
Waste water purification using active carbon and ash - 17896W/11
USAS 22.08.73 NAT AERO & SPACE ADMIN D15 =J7 9013-118
Waste water purification using active carbon and ash - 17896W/11
USAS 24.11.76 US NAT AEROSPACE AD B04 D16 J03 =GB 1547-556
Electrophoresis appts. with automatic multiple sample applicators - 89803Y/50
USDA 15.02.77 US SEC OF AGRICULTURE D11 *US 4157-406
Substitute for chlorine-bleached flour - 47086B/25
UYFL- 19.05.77 UNIV OF FLORIDA D22 L01 M13 =ZA 7802-401
Metal-coated biologically active glass - 78321A/44
UYMA- 20.10.77 UNIV MANCHESTER INS B04 D16 (D13 D15) =SW 7810-828
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08

VILJ/ 06.09.77 VILJANMAA A K D18 =GB 2009-784
Stretching hides in frames for drying - 04115B/03
*VOLC/ 28.03.77 VOLCHKOV I I D13 *SU -621-331
Cheese curds-cream mixer for soft cheese prodn. - 46933B/25
*VOLS- 22.04.77 VOLSTATIC HOLDINGS LTD D12 *ZA 7802-283
Curing fish to simulate smoked fish - B/25

WADL 10.12.73 WADLEY RES INST BLOOD BK B05 D16 (B01) =IT 1029-629
Detoxification of saponins for use in blood lysis - 35773W/21
WEIS- 21.12.77 GEBRUDER WEISS KG D16 =ZA 7802-766
Organic garbage composting plant - 44109B/24
*WELA 09.12.77 WELLA AG A96 D21 (A11) *DT 2754-796
Aq. hair conditioner and shampoo compsns. - 45814B/25
WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 =GB 2009-786
In vitro propagation of rota-viruses - 42416B/23
WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 =NL 7811-763
In vitro propagation of rota-viruses - 42416B/23
*WHIT- 22.04.77 WHITE STEVENSON LTD D12 *ZA 7802-283
Curing fish to simulate smoked fish - B/25
WILK 31.01.74 WILKINSON SWORD LTD D13 E19 (D18 D21) =CA 1055-772
Modifying aroma of foods, tooth pastes, tobacco, etc. - 54031W/33
*WILL- 31.03.78 J A & A M WILLIAMS D14 *ZA 7801-864
Stone fruit cutter - 47135B/25
*WILL/ 18.05.77 WILLEMSEN W H D11 *ZA 7702-996
Appts. for prepn. of foodstuffs - 47124B/25
WINT- 15.09.77 WINTERHALTER K KG D14 =FR 2403-053
Washing machine to clean vegetables with circulated water - 40419A/23
WOOD/ 26.10.77 WOODE R D15 =SW 7712-023
Pulp clarifying plant - 35648B/19

*YAWH 18.10.77 NIPPON STEEL CHEM KK D15 H09 *J5 4058-705
Treating waste tar oil contg. water - 46366B/25
YOSH/ 30.09.77 YOSHIDA K B04 D16 =GB 2009-771
Prepn. of polysaccharide(s) for immune serum - 43128B/23

ZAID 27.07.74 ZH BISEIBUTSU KAGAKU KEN B03 D16 =CA 1055-866
Antitumour antibiotic aclacinomycin-A and -B - 85012W/52
*ZAIT/ 29.03.77 ZAITSEV I D D15 *SU -620-522
Reinforcing and waterproofing ground - 46847B/25
ZAJI/ 09.09.75 ZAJIC J E D16 H04 J01 M25 =CA 1055-865
Recovering calcium tungstate from low grade ores - 66687Y/37
ZIER- 05.12.77 ZIERKERZEN DRESDEN D23 M13 #DT 2754-018
Metal-coated candle prepn. - 14197A/08
*ZIMZ/ 06.05.78 ZIMZIK H D25 (D16 D21) *DS 2819-940
Detergent, cleansing and cosmetic and/or medicinal soaps - 45735B/25
ZWIA- 09.05.75 ZWIAZKU SPOLDZ MLECZARSK D15 =GB 1547-587
Basin for activated sludge treatment - 97410X/52

R D
05-305 R06
07-371 S27
68-272 T13
18-367 T20
60-170 W03
03-939 B12
29-507 B25

R D
505-946 R16+
348-953 R33
000-632 S02
029-503 B25

-R BD
583-560 R19
229-425 S15
241-288 S30
927-745 U26
792-806 B25

4-R D
1811-290 R23
503-773 S20
2070-064 S49
-908-905 T38
1298-223 T48
3823-212 V29
1811-290 B25

3-R D
1956-956 R24
2023-084 R48
1234-360 S21
3607-668 S42
-945-505 V17
1029-508 B25

17-R BD
1196-971 R26
-874-928 S28
3607-310 S41
-523-665 T34
1029-504 B25

950-R D
6919-468 R27+
1965-271 R35+
B 1294-478 T43+
1029-509 B25+

271-R D
E -745-847 R33
L 7002-041 S35
T 2006-422 S35
B 1253-644 S45
R 2077-749 T05
H -526-920 T47
A -915-980 T51
T 1029-511 B25+

0117-S D
E -754-240 S05+
NL 7011-333 S06
DT 2036-803 S07
R 2054-660 S32
US 3697-290 T43
CA -917-996 U03
GB 1314-595 U17
CH -562-565 W30+
DS 2036-803 W30+
NL -149-992 X33+
OE 7302-217 Y13+
IT 1029-512 B25+

59304-S D
DT 2108-720 S37
FR 2078-983 T05
GB 1344-103 V03
US 3821-452 V28
CA -994-606 X35
DS 2108-720 B25

67576-S D
BE -765-725 S42
NL 7104-962 S44
J4 6003-976 S47
DT 2117-382 S49
FR 2089-625 T13
ZA 7102-367 T14
US 3681-087 T33
GB 1341-642 U52
CA -942-990 V11
J7 4032-068 V38
IT 1029-517 B25

66752-T AD
DT 2210-220 T42
US 3804-604 V17
GB 1387-711 W12
J4 7034-549 B25
J7 9012-948 B25

81638-T ABD
DT 2226-297 T52
ZA 7202-242 U05
FR 2140-452 U13
GB 1350-024 V16
CA -955-591 V42
CH -579-598 X42
DS 2226-297 B25

25913-U BCDE
DT 2248-880 U19
NL 7214-067 U19
BE -790-244 U19
ZA 7205-742 U25
FR 2156-768 U33
J4 8048-474 U37
GB 1355-776 V23
US 3818-018 V26
US 3890-434 W26
CA -976-963 W46
CH -576-444 X29
CH -578-349 X39
SW 7514-554 X40
SW 7514-553 X40
DS 2248-880 Y41
SW 7812-197 B17
IT 1029-522 B25

31605-U D
BE -792-843 U22
DT 2163-696 U29
FR 2164-697 U42
DT 2163-696 U43
CH -547-115 V17
GB 1373-738 V46
US 3869-390 W11
CA -991-093 X27
OE 7209-694 Y39
SU -621-306 B25

35367-U BD
NL 7216-260 U25+
DT 2258-940 U27
FR 2166-973 U44
J7 5000-886 W06
CH -559-549 W17+
GB 1392-488 W18+
US 3885-915 W23+
DS 2258-940 B25+

44628-U BCD
DT 2303-026 U32
BE -794-137 U32
NL 7300-746 U32
FR 2168-207 U46
J4 8080-366 V01
ZA 7300-431 V16
DL -104-708 V24
US 3845-208 V45
GB 1415-093 W48
CH -569-425 X02
SU -621-305 B25

76645-U DE
NL 7307-293 U50
BE -800-030 U50
DT 2326-444 U51
FR 2185-360 V09
J4 9124-244 W05
US 3878-305 W17
GB 1392-151 W18
J7 5037-731 X02
CH -583-003 Y02
OE 7304-609 Y05
CA 1004-905 Y08
DT 2366-239 B03
DS 2326-444 B25

25189-V D
DT 2246-214 V14
DS 2246-214 B25

30107-V D
NL 7313-554 V16
BE -805-553 V17
DT 2349-045 V17
US 3805-809 V18
FR 2201-071 V27
US 3935-868 X07
GB 1429-086 X13
CA 1042-346 A48

IT 1029-601 B25

39947-V DE
BE -809-651 V22+
NL 7400-443 V30
FR 2213-766 V45
DT 2400-721 V49
ZA 7400-187 W37
DK 7504-856 X11
DK 7504-855 X11
DK 7504-854 X11
GB 1460-581 Y01
GB 1477-823 Y26
SW 7702-038 Y31
US 4048-300 Y38
CA 1023-667 A04
CA 1028-826 A16
US 4139-599 B08
US 4108-980 B11+
CA 1054-060 B22+
US 4157-378 B25

88160-V D
NL 7407-415 V51
DT 2426-641 V52
J5 0033-219 W22
GB 1485-625 Y37
DS 2426-641 Y50
US 4116-705 A40
J5 3114-827 A45
BE -869-015 A46
J7 9013-256 B25

00922-W D
NL 7407-831 W01+
NO 7402-134 W05+
DT 2333-680 W05+
SW 7407-741 W07+
DK 7403-109 W09+
SF 7401-803 W16+
OE 7400-903 X40+
CH -582-113 X52+
US 4019-431 Y18+
CA 1048-854 B10
US 4144-807 B14
CA 1055-776 B25+

13081-W DE
DT 2436-876 W08
NL 7410-219 W08
SW 7409-791 W13
FR 2239-525 W20
ZA 7404-933 W37
GB 1471-747 Y17
SU -546-286 A09
CH -602-921 A37
CA 1055-655 B25

17896-W D
DT 2439-603 W11
SW 7410-523 W16
FR 2241-502 W22
GB 1476-169 Y23
CA 1051-566 B14
J5 0054-155 B25
J7 9013-118 B25

27156-W AD
US 3875-946 W16
DT 2507-600 W36
FR 2261-739 W50
GB 1477-615 Y25
CA 1042-301 A48
IT 1029-862 B25

29196-W ADFG
DT 2348-662 W18
FR 2246-684 W28
J5 0058-201 W29
CA 1035-210 A32
IT 1029-608 B25

30512-W CDF
US 3879-536 W18
BE -826-637 W31
GB 1438-478 X24+
DT 2512-090 X41+
J5 1101-125 X43+
SW 7502-428 X43+
NO 7500-793 X44+
SF 7500-626 X48+
BR 7501-261 X51+
FR 2303-474 Y03+
CH -596-760 A15+
CA 1038-753 A40
IT 1029-974 B25

35773-W BD
US 3883-425 W21
DT 2449-749 W25
FR 2253-759 W39
J5 0121-300 W47
BR 7410-278 X29
GB 1483-783 Y34
CA 1029-368 A17
IT 1029-629 B25

38857-W DF
SU -436-905 W23
SU -436-905 B25

44103-W D
US 3889-691 W26
SW 7415-061 W33
FR 2255-021 W41
J7 6034-919 X43
GB 1458-480 X51
CH -583-530 Y09
CA 1026-184 A09
IT 1029-636 B25

44452-W DF
BE -825-554 W27
DT 2505-264 W35
NL 7501-745 W36
NO 7500-491 W41
SW 7402-030 W41
SF 7500-394 W44
DK 7500-550 W45
FR 2261-017 W49
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GB 1547-412 B25

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DK 7600-944 X52+
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H -610-591 B20+
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A 1055-685 B25

891-X D
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L 7702-157 Y39
5 2110-858 Y43
W 7702-733 Y43

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97408-X BDE
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SW 7606-448 Y04+
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J5 4059-313 B25+

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18413-Y D
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GB 1497-958 A02
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20309-Y D
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26491-Y BD
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SW 7610-683 Y41+
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27580-Y D
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SW 7610-991 Y21
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29594-Y DE
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66687-Y DHJM
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*768 46973B D15H03
=768 46973B D15H03

SW 7711
=659 31887B D22P3
=660 31887B D22P3
*703 B D12
*735 B D21
#853 21886A A96B04C03D16R1
=948 31595B D15
#959 70573A A85D15J03

SW 7712
=023 35648B D15+P4
*156 B C03D13
=167 16020B D13+P1
=179 35799B D15E11
=193 39310B D15+P2

SW 7713
=780 45743B D12

SW 7801
=154 44129A A97D15E11M14

SW 7804
=306 35611B D13

SW 7807
=436 78441A A96B07D22P3

SW 7808
=870 16027B D13

SW 7810
=143 33326B B04D16R1
=232 33597B D15
=668 89470A D15
=722 19938B A60C02D22E13
=761 78140A D21L02P3
=828 14223B B04D16
=830 31891B A96D22+P3P7
=837 18051B D21E34
=879 33640B D12
=909 31587B D25E19F06
=956 72923A D11

SW 7811
=083 33342B B04D16
=132 35501B D15E36J04R1
*162 B D17E17F09

US RE30
=023 86891X D12

US T983
*004 46983B D23E14G02P7

US 4156
*943 46988B D22M22P3

US 4157
*017 46994B D13
*060 46996B D13
=065 20309Y D14+P7
*085 46997B A96D22P3
=243 40498B D25E13H07M14
*267 47026B D17
=278 73900A B04D16
=279 09287X B04D16R1+P3
=280 26491Y B04D16R1
=300 42326A A35D15E14J01
*303 47041B D16
*304 47042B D15
*307 47043B A97D25E19F06
=330 32890Y A35D21E13
=335 45533A D23
=345 97408X B05D13E24
*351 47067B D23E15
=352 14605B D23E15
=364 44129A A97D15E11M14
=378 39947V D21E33
*385 47080B B05D21E19
*386 47081B D21
=387 31351B A96D21P6
*388 47082B A96D21F06
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*390 47083B B04C03D16
*401 47084B A97D13E15
=402 42693B D13
=403 08604A D11
*404 47085B D13
=405 07742A D13
*406 47086B D11
=437 04377B A23D22F01P3
*445 47104B B02C02D23E13

ZA 7702
*996 47124B D11
=996 47124B D11

ZA 7705
=551 23624A D13
=790 35211A A96D22P3Q3
=993 26944A A88D18P1

ZA 7706
=029 25248A A97D25E12
=048 06082A D22P2
=049 23396A A96D22F07P2
=160 28816A A96B05D21
=315 36931A A96D21
*795 47128B D14P2
=795 47128B D14P2

ZA 7801
#334 42009A B04D16K08+R1
*723 B D15
=758 74694A B04C03D16
*864 47135B D14P2
=864 47135B D14P2

ZA 7802
=119 76849A D11J02+P2Q3
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*283 B D12
=373 63459A B04D13
=401 78321A D22L01M13P3
=626 89647A B04D13E13J04R1
#635 53271A D15
=643 67110A D25E19
=671 82116A B05D21E14
=683 84059A B02D16
=690 06200A A14D22F01+P3
=726 33589B A96D21
=766 44109B D16
#774 86136A C03D13
*788 B D13
=805 70827A B04D16
=808 00004B B04C03D16
*875 B B04C03D16
=933 80247A B04D16
=935 72816A A96D22L02P3
=936 68980A D15J01
=956 88232A A91D15M25
=978 86137A A96D21P3

ZA 7803
=133 20330B D21E16+P2

CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

WEEK B26
15 AUGUST 79
47143B - 48977B

2 8 FEB

ABSTRACTS

INDEXES

- **II - PATENTEE**
- **V - BASIC NUMBER**
- **VII - PATENT NUMBER**

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	19 JUN - 24 JUN 79	872,858 - 873,060
-Non Delayed	18 JUN 79	874,213 - 874,363
BRAZIL	12 JUN 79	7,707,756 - 7,807,314
CANADA	12 JUN 79	1,056,101 - 1,056,550
DENMARK	5 JUN 79	7,704,971 - 7,805,067
W. GERMANY		
-DAS	21 JUN 79	1,428,244 - 2,844,241
-OLS	21 JUN 79	2,734,918 - 2,855,471
EUROPE	27 JUN 79	2,429 - 2,651
FRANCE*	20 APR 79 (BOPI 25 MAY 79)	2,403,727 - 2,404,379
UNITED KINGDOM	27 JUN 79	1,547,611 - 1,547,920 2,010,061 - 2,010,650
ITALY	30 MAR 79	1,030,001 - 1,030,500
JAPAN		
-Unexamined	—	47,035,163 - 53,073,287
	15 MAY - 21 MAY 79	54,060,303 - 54,063,200
-Examined	31 MAY - 6 JUN 79	79,013,441 - 79,014,400
NETHERLANDS	15 JUN 79	160,470 - 160,699
	11 JUN - 17 JUN 79	7,713,570 - 7,812,148
NORWAY	5 JUN 79	7,703,491 - 7,901,315
AUSTRIA	15 JUN 79	7,101,647 - 7,809,009
RES. DISCLOSURE	JUNE 79	182,001 - 182,076
SOVIET UNION	—	621,400 - 622,686
SWEDEN**	11 JUN 79	7,307,368 - 7,901,491
UNITED STATES		
-Reissues	12 JUN 79	Re30,025 - Re30,032
-Patents	12 JUN 79	4,157,592 - 4,158,240

*Printed patents actually published early June, 1979

**Includes numbered Basics from Weeks B10, B11 and B12

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

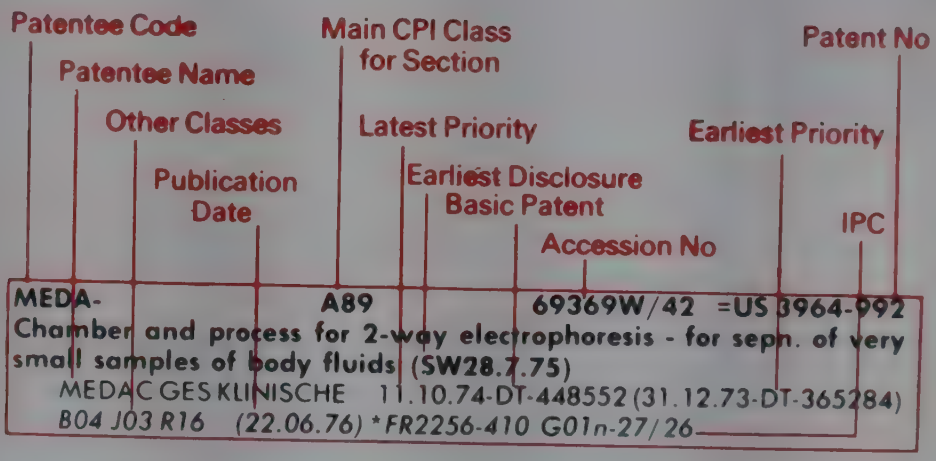
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
Patent No
IPC

MEDA- **A89** **69369W/42 =US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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15th August 1979

CENTRAL PATENTS INDEX

Material Despatched in Consignment of 15th August 1979

ALERTING BULLETINS - COUNTRY ORDER

48978B - 50860B (B27)

EXAMINED JAPANESE APPLICATIONS

The advanced version of the alerting abstracts which will appear as the current version in Week B32 Alerting Bulletin (Country Order) are included in this week's consignment.

ALERTING BULLETINS - CLASSIFIED

47143B - 48977B (B26)

WEEKLY ALERTING BULLETIN INDEX BOOKLET

48978B - 50860B (B27)

BASIC ABSTRACTS JOURNALS

45674B - 47142B (B25)

7: COMPLETE SERIES BASIC ABSTRACTS ON MICROFILM

*Reel 261 30001B - 32500B (B16/B17)

8: PROFILE BOOKLETS

Delayed

*Reel 260 Delayed for technical reasons

PROFILE MANUAL CODE CARDS

Profile 2A
Section A

*A2 143440 - 143446 (B22)
*A10 143607 - 143627 (B22)

*Includes replacement card no. 138736

Profile 21A
Section H

14474 - 14479 (B22)

Section J

20497 - 20500 (B22)

Section N

03031 - 03060 (B20)

9: CS MICROFILM

A	Reel 53	40854B - 41074B	(B22)
A	Reel 54	41081B - 42398B	(B22)
A	Reel 55	42401B - 42780B	(B23)
A	Reel 56	42781B - 43988B	(B23)
B	Reel 23	37154B - 38741B	(B20)
B	Reel 24	38790B - 38960B	(B21)
D	Reel 18	37619B - 40603B	(B21)
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F	Reel 18	38969B - 40812B	(B22)
J	Reel 18	39448B - 42207B	(B22)
G	Reel 14	39452B - 42743B	(B22)

Directors: M. Hyams (Chair. & Man.) V. S. Hyams B. G. Paver A. B. Comfort P. T. Smith Executive Directors: A. M. Brooks M. J. Whiffin H. Birnbaum M. D. Dixon H. Winning I. S. Smith P. Norton S. J. Newey C. J. Page K. M. Walker M. E. Pope R. H. Hope T. M. Harvey

10: COMPLETE SPECIFICATION BOOKS

B No. 1136 45674B - 47142B (B25)
C No. 697 45674B - 47142B (B25)

13: COMPANY CODE CARDS

44025B - 45673B (B24)

17: MANUAL CODE CARDS

*A 143427 - 143801 (B22)
B 44025B - 45673B (B24)
C 44025B - 45673B (B24)
D 23887 - 23938 (B22)
E 62272 - 62409 (B22)
F 31830 - 31876 (B22)
G 21297 - 21329 (B22)
H 14454 - 14487 (B22)
J 20468 - 20510 (B22)
K 06477 - 06480 (B22)
L 28383 - 28461 (B22)
M 34859 - 34930 (B22)

*Includes replacement card no. 138736

NOTE: Correction to Advice Note No. 30 Number range for Section H Manual Code Cards Week B20 should be 14370 - 14421 instead of 14370 - 14420.

19: PUNCH CODE CARDS

B 38970B - 40601B(321 cards) (B21)
C 38973B - 40602B(140 cards) (B21)
E 31555B - 33310B (B17)

NOTE:
Punch Code Cards Section E include reissues for 45236S, 13540T.

The following delayed cards are included in this week's consignment:

Section B
35261V, 06220W(2), 09647W

Section C
06220W(2)

Section E
NIL

23: WEEKLY SDI TAPE

38968B - 40606B
E5213B - E7371B
47143B - 48977B
F5276B - F7205B

25: RIN SERVICE

Screen Cards
*B Nos. 001 - 070
C Nos. 001 - 028
E Nos. 001 - 053

Weekly Indexes

B, C, E and Overall

Sheets and Cards

51508 - 51519

*Section B Screen Card 070 is a reiss
for 004 in A46.

CS MICROFILM BY COUNTRY

DL	262-265	OPI	27.6.
DT DAS	586-587	OPI	26.7.
DT OLS	3661-3666	OPI	26.7.
DT PS	484-485	OPI	26.7.
UK NEW LAW	GB39-40	OPI	1.8.
PCT	WO13	OPI	28.6.
CANADA	1642-1643	OPI	13.2.
CANADA	1680-1683	OPI	8.5.

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lgian Patents Abstracts	B28
itish Patents Abstracts	B27
ench Patents Abstracts	B27
erman Patents Abstracts	B27
erman Patents Gazette	B27
apanese Patents Report	No. 28 Despatched 13.8.79
apanese Patents Gazette	B27
etherlands Patents Report	B27
oviet Inventions Illustrated	B27
.S. Patents Report	B27
PA Journals	B27
uropean Patents Report (Patent Nos. 02652 - 03015)	B29
CT Patents Report (Patent Nos. 7900388 - 7900441)	B27/29

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D1: FOOD; FERMENTATION

D11 : BAKING

★ D11 47245B/26 ★CA 1056-200
layer dough improver tablets - contg. oxidising layer, additive , and intermediate inert barrier salt layer
NNWALT CORP 17.05.74-US-470766
(12.06.79) A21d-02

i-layer tablet for improving flour and dough consists layer of a strong oxidising agent (I) and a layer of org- chemical flour and dough additives (II) which are sepd n inert barrier layer of a salt (III) which is an accep- e edible filler for flour additive compsns.

Tablets are as effective in improving and maturing r and doughs as conventional tablets, but have reduced and/or explosive potential, and longer shelf life, etc. 3.75 as 221894 (18pp478)

C D11 42838R/24 #DS 1767-943
s or crisps from dehydrated potato
PROCTER & GAMBLE CO 31.07.68-GB-036543 (04.07.68-DT-767943)
*D13) (21.06.79) *GB1195-138 A23l-01/21*

sp savoury potato chips are made from dehydrated, oked potato contg. 0-5 wt.% of reduced sugar and with ine number of 0.01-6. The potato is mixed with water form a dough contg. 25-55 wt.% of water and with a lip- content (Y) defined by $Y=AX^{0.40}$ (where $A \leqslant 2.7$; and is the iodine number of the potato)

The chips have the taste and appearance of chipped pot- oes. 4.7.68 as 767943(10pp68)

NI/ D11 79794Y/45 =DS 2717-410
ugh tipping mechanism - using vertically movable driven friction lers to engage friction wheels with flats on tiltable troughs
KONIG H 23.04.76-OE-003002
*(21.06.79) *DT2717-410 A21c-09*

tipping device for lumps of dough which are transported hinged troughs on an endless chain is based on a circ- lar roller, fixed to one end wall of each trough and lines ith a friction material. A roller which is driven at a peed higher than the chain speed is made to engage the riction lining to perform the tipping. A flat on the fixed oller interrupts the turning motion and an adjustable stop estricts the angle through which the trough is tipped.

The fast action ensures a reliable removal of the lumps f dough from the troughs. 20.4.77 as 717410(9pp39)

CHI- ★ D11 47253B/26 ★DS 2812-543
wollen germinated whole cereal grain prepn. for bread mfr. - by ixing with water, heating, cooling and adding more water
ACHIMER SIMONSBROT 22.03.78-DT-812543
(21.06.79) A21d-13/02

Germinated cereal grains, to be used as an aq. paste in bread mfr., are treated by (i) mixing 10 pts. wt. of germ- inated whole cereal gains with 15-18 pts. wt. cold water at 10°C; (ii) heating to ≥85°C for 45 min. and then (iii) cooling the mixt. to <20 (10)°C with the addn. of 5-2 pts. wt. cold water at <10°C.

Highly swollen gains are obtd., which can be used whole in bread mfr., without risk of damage. Acid form- ation is prevented by shock cooling. 22.3.78 as 812543(4 pp200)

ACHI- ★ D11 47254B/26 ★DS 2812-544
Pre-swelling whole cereal grains for bread mfr. - by adding water, heating, and cooling with further cold water addn.
ACHIMER SIMONSBROT 22.03.78-DT-812544
(21.06.79) A21d-13/02

Whole cereal grains for bread mfr. are pre-swelled by (a) mixing 10 pts. wt. cereal gains with 15-18 pts. wt. cold water at 10°C; (b) heating the mixt. in <60 min., with const. stirring, to hot-swelling temp. >85°C, for 45 min. constant stirring, at a total gains : water wt. ratio 1 : 2.

The 2-step swelling yields grains which can be proce- ssed to bread without damage during dough prepn. The dough could be baked well, yielding a tasty wholemeal bread which retained its freshness over a long period. 22.3.78 as 812544(3pp200)

DAUB- ★ D11 47314B/26 ★DT 2756-143
Revolving baking oven - with roller guides at bottom and top roller supporting guides for multistage baking carriage
DAUB F U SOHNE 16.12.77-DT-756143
(21.06.79) A21b-01/44

A revolving baking oven has at the bottom a thrust bearing on which rails with rollers are supported. A baking carr- iage with several decks can be pushed on these rails with which inverted channels at the bottom of the carriage co- operate. A U-shaped frame structure has a drive pin which extends through the top of the baking space so that it can be revolved together with the carriage.

This eases the run-in of the carriage and prevents im- pacts or tilting. The fitments are not impaired in their function by clogging. 16.12.77 as 756143 (9pp39)

KONI/ ★ D11 47417B/26 ★DT 2853-270
Dough portioning and grinding machine - with magnetic coupling for intermittent drive of positive disc cam (OE 15.3.79)
KONIG H 16.12.77-OE-009051
(21.06.79) A21c-05/04

A dough proportioning and grinding machine consists of a drum with four lines of cylinders and pistons at right angles to each other. The 3 o'clock position is the weighing stat- ion, the 12 o'clock position the grinding station, and the 9 o'clock position the ejection station. The drive for the positive disc cam which actuates the pistons can be inter- rupted for a set time by a magnetic coupling to achieve a dwell in the retraction of the piston during the grinding stage.

The piston motion can thus be affected without having to change the cam. 9.12.78 as 853270 (15pp39)

KEMP/ D11 77738X/42 =GB 1547-662
Bread dough prepn machine - with parallel dough working sections after dough raising device and common rolling section
KEMPER K 22.03.75-DT-512776
*(27.06.79) *DT2512-776 A21c-03*

A dough makeup line has a dough divider, a rounding unit, a proofer, and parallel dough lines downstream of the proofer. The proofer has a delivery device which can be switched to any one of the dough lines. A rolling station is provided on a dough line transverse to the others and which leads to a baking palette loading device.

Pref. the delivery device has a conveyor belt associated with each of the dough lines. The line can makeup several types of bread continuously and automatically. 19.3.76 as 011302(13pp1376)

SANY D11 62933V/35 =J7 9013-491
High sugar content bread prodn - by addn. of Saccharomyces rosei to dough mixt. to rapidly give high vol. bread
SANKYO KK 14.04.71-JA-023607
*(31.05.79) *US3830-938 A21d-08/04*

Bread of high sugar content is produced using Saccharomy -ces rosei as yeast. In comparison with conventional yeast (Saccharomyces cerevisiae), Saccharomyces rosei has extremely high fermentation power in a high sugar environ -ment. 14.4.71 as 023607, A21d-8/04, (31.5.79) SANKYO KK (2pp83) (J4 7035163)

PLEY- D11 05423B/03 =NL-160-476

Positive pressure oven for bread-baking - has double walled door which closes via sealing element against inner wall of oven

MACHINEFAB PLEYTE 24.06.77-NL-007070

*(15.06.79) *NL7707-070 A21b-03/02*

A pressurised oven, partic. for bakeries, is equipped with a vertically sliding door. A U-profile on the sides and lower edge of the oven opening contains a seal element along the inner facing wall against which the door seals under the influence of the pressure in the oven pushing the door outwards. A transverse plate along the top of the oven closes against seal elements on either side of the opening through which the door rises.

Guide rails fixed to the sides of the door move against rollers fixed to the oven and are equipped with rebates so that, during the vertical movement of the door, the door is pushed away from the seal elements thereby preventing rubbing wear and, once the door is aligned with the oven opening, the rollers fit into the recesses in the guide rails permitting the door to press against the seal elements. 24.6.77 as 007070. (4pp1370)

SEEW- D11 18217X/10 =NL-160-477

Machine for folding dough strips - across the strip especially for initial folding for puff pastry

SEEWER MASCHIN AG 17.08.74-DT-439496

*(15.06.79) *NL7509-745 A21c-03*

A machine is described for folding a strip of dough so that, when divided into three portions, the two outer portions are folded together to lay flat on the central portion. The machine comprises a downwardly inclined feed conveyor and an upwardly inclined reversing conveyor symmetrically placed with respect to the first conveyor. The lower axes of the two conveyors are mounted on swing arms linked at a common pivot so that they can be swung together or apart. A third conveyor, also capable of reversing is mounted below the opening between the first two conveyors. By appropriate stepped movements of the three conveyors, the folded dough is laid on the lower conveyor and transported away.

The device is capable of handling very thin layers of dough and, under some circumstances may operate
two pieces of dough in the machine at the same tim
that a greatly increased prodn. rate is achieved.
15.8.75 as 009745. (11pp1370)

GASS/ ★ D11 B/26 ★OE 7

Dough pieces proving and shaping installation

GASSNER J 07.03.77-OE-001514

(15.06.79) A21c-13/02

KONI/ ★ D11 B/26 ★OE 7

Machine for making dough into round shapes

KONIG H 06.05.77-OE-003265

*(15.06.79) A21c-07/**

COXD/ ★ D11 48956B/26 ★US 4

High protein efficiency ratio wheat macaroni - contg. milk and added L-lysine

COX D S 04.10.77-US-839186

(12.06.79) A23l-01/16

An enrichedwheat macaroni product comprises 78-9
semolina, a minor amt. of another protein source in
ing ≥2% of a milk fraction protein, 0.5-1.0% added l
in addn. to that already present. The product contai
20% protein, with a PER of ≥2.50.

The pasta has high cohesiveness, good colour, te
and taste, and meets US FDA standards as a "meat a
ate". It is cheap and can be made using conventional

The second protein source may be wheat derivs. e
gluten, germ etc, oilseed derivs. e.g. soya flour, c
seed meal, peanut meal etc, fish meal, torula yeast,
in various forms or caseinate salts. Pref. the addec
tein comprises denatured whey solids and a caseinate
Ca caseinate. 4.10.77 as 839186 (5pp955).

D12 : MEAT ; FISH PROCESSING

UENO ★ D12 47240B/26 ★BE-874-362

Preparing ground frozen fish used for fish pastes - contg. sugar alcohol and oil colloid plus poly phosphate

UENO SEIYAKU OYO 08.03.78-JA-025520

(18.06.79) A23b

Ground frozen fish flesh is produced by mixing the ground fish with (1) 1-10%, pref. 2-9% of a powdered or granular colloid formed from 70-99% of a crystalline stabilised sugar alcohol and 30-1% of fine oil or fat particles dispersed in it and (2) 0.1-0.5% of a powdered or granular polyphosphate followed by drying.

The colloid is pref. prepd. by either (a) melting the sugar, dispersing the oil/fat, then cooling and crystallising by seeding; (b) dispersing the oil/fat in a hot aq. soln. of the sugar, cooling, seeding and drying or (c) as (b) only heating the dispersion to above the sugar m.pt. to remove water followed by cooling and seeding. Seeding is pref. using the colloid or a sugar alcohol.

The process affords improved whiteness and elasticity properties. 22.2.79 as 874362 (20pp597)

NMHB ★ D12 47258B/26 ★DS 2844-241

Fish fillet skinning machine - with skinning roll divided by grooves into areas with roughened surface

NORDISCH MASCH R BAADER 11.10.78-DT-844241

(21.06.79) A22c-25/17

A skinning machine for fish fillets has on the periphery of the skinning roll areas for the support and the transport of the skin side of the fillet. These areas are separated from each other by grooves at right angles to the direction of motion of the roll; their surface is roughened
serrated.

The arrangement increases the yield of edible mat
and minimizes the scrap. The end of the fillet is not
as it approaches the skinning blade. The cutting edge
deal with the thick or scaly skin. 11.10.78 as 844241

MOBA- D12 48334B/26 =EP ---

**Device for hanging a fowl by the knee joint - has mean
clamping and releasing the bird's feet and for counteracting f
exerted during preparing and packaging of the bird**

MOBA HOLDING BARNEV 09.12.77-NL-013637

*Q31 (27.06.79) *NL7713-637 A22c-21*

D/S: E(BE, CH, DT, FR, GB, SW).

A hook for hanging a fowl by the knee joints comprise
claws, or, pref. a single claw on each side of which is
finger capable of rotating about a vertical or nearly ve
cal shaft. The fingers, in the clamped condition, are i
clined slightly upwards and are turned up at their oute
ends. A clamping piece moves vertically down toward
fingers and is attached to a rack mechanism by means
which it can be locked in the desired position determin
by the thickness of the knee joints to be clamped in the
vice. The mechanism is pref. attached to a hinged lev
enabling the device to be released.

The device is carried on a carriage suspended from
rail so that it can be moved from station to station in t
prepn. or packaging of the fowl. The mounting is pref.
such that the device can be swung forwards or backwar
to suit the operation being

device will reliably grip and release the knee of a fowl and, at the same time, will resist upward kward movements exerted on the fowl during the of the prepn. or packaging operations. This elim- the need for additional supports at each treatment n.
8 as 200342(19pp1370)
SR: —

D12 48335B/26 =EP ---2-552
for enclosing and modelling a fowl - has hinged, dished nd hinged guide plates to reliably enclose wings
BA HOLDING BARNEV 09.12.77-NL-013638
*(27.06.79) *NL7713-638 B65b-25/06*
E(BE, CH, DT, FR, GB, SW).

ice for modelling fowls consists of a chamber form- a rear dish attached to a slide, and two front dishes, t each side of the chamber and hinged to the front mities of the rear dish so that, when the two hinged s are swung together, the chamber is formed which ses the fowl. The movement of the slide toward the causes curved plates to be swung inwards so that come together in the centre back of the bird. The of these plates matches the outer trajectory of the of the hinged dishes so that, as the latter come togeth- ey rub along the inner face of the curved plates en- g that the wings of the bird are totally enclosed and ly come to lie against the bird's body. Each of the ed elements is actuated by arms and followers which ge in guides in the body of the slide the movement of h consequently controls the movement of the elements. ver locks the slide in either the open or closed posi-

he mounting assembly is also equipped with a hook for ing the bird by the knee joints which can be moved nward, bringing the bird within the space enclosed by modelling chamber.

he device guarantees that, regardless of the initial tion of the bird's wings, they finish up in the correct tion against the body.
.78 as 200343 (20pp1370)
SR: NL7603625.

BA- D12 48336B/26 =EP ---2-553
ice for modelling or packaging objects partic. fowls - has means nechanically registering oversize object and releasing it in an rnative manner
MOBA HOLDING BARNEV 09.12.77-NL-013639
*Q31 (27.06.79) *NL7713-639 B65b-25/06*
: E(BE, CH, DT, FR, GB, SW).

object to be packaged, esp. a fowl, is gripped and mod- ed in a chamber with hinged, dished ends which bring wings to the body of the fowl and lay them against the ly in the correct position. The mechanism is arranged that, in the event that the fowl exceeds the normal size, chamber does not fully close, the guide mechanism for ding the chamber closed being sepd. from the dished ds by springs.

The device is pref. mounted on a carriage which travels ng an endless track, Guide rails on the track frame tuate followers on the device which control the mechan- n. If the chamber does not fully close, an alternative t of guides permits the bird to be released in a differ- t manner.

The arrangement of the actuating mechanism permits wls of varying body size to be handled without the risk jamming or damage to the bird or the equipment. Over- ze birds can be identified and sepd. during the operation.
12.78 as 200344 (24pp1370)
)ISR: NL7603625.

OBA- D12 48337B/26 =EP ---2-554
evice for holding and treating e.g. fowl - has holding element quipped with sensor which grips bird by the knee
MOBA HOLDING BARNEV 09.12.77-NL-013640
*Q31 (27.06.79) *NL7713-640 A22c-21*
/S: E(BE, CH, DT, FR, GB, SW).

d treating an object, esp. poultry, has a holding element which, in the case of fowls, grips the bird by the knee joint, equipped with a sensing probe to detect the presence of the object. The probe consists of two arms pivoted about a horizontal axis mounted on the main frame of the device and pushed by springs into a first position. The arms are only able to adopt this position when no fowl is present in the hook and clamp device.

When this condition exists, the upper ends of the arms prevent the subframe to which the hooks are attached from lowering into the packaging position. The main frame is pref. mounted on a mobile carriage which enables the device to be moved from station to station along a suspension rail. Followers on the sensing probe are forced at a certain stage of the process to move the probe arms apart for the receipt of a fowl. The followers are then released. If the fowl is present, the arms will not go back to the first position and the subframe will be allowed to lower the fowl to the packaging holder.

The device prevents the packaging equipment from operating when the object to be packaged is either not present or is incorrectly held thereby preventing possible damage.
4.12.78 as 200345 (17pp1370)
(E)ISR: —

KOTT/ D12 90734X/49 =GB 1547-906
Skinless smoked sausage - with natural skin produced by hot air blast after smoking of extruded strands
KOTT R 07.04.75-DT-515067
*(27.06.79) *DT2515-067 A22c-11 A23b-04/04*

Smoked casingless sausage is produced which is durable and hard, by extruding >1 elongated strand of a sausage mass with bacon content of 0-40 wt.%, then cutting strands into sausage strand lengths.

Sausage lengths are smoked at a gradually increasing temp. of ≯50°C to ≥100°C. Lengths are dried at 20-25°C whilst being held so as to prevent contraction. Pref. sausage mass comprises a mixed and ground mass of meat contg. ≤ 5 wt% fat, ≤ 35 wt% bacon content and additives to improve the taste and no added water.

Prod. can be held in the hand and eaten esp. easily and conveniently in the manner of a snack. 18.3.76 as 010853 (5pp931)

TAKE ★ D12 48054B/26 ★J5 4062-357
Agent for maintaining colour of fish eggs - comprises nicotinic acid amide, cereal germ and colouring agent
TAKEDA CHEMICAL IND KK 24.10.77-JA-127898
(19.05.79) A23l-01/32

Agent (I) for maintaining colour of fish-egg (II), contains cereal germ (III) and colouring agent (IV). Nitrate and nitrite had been used as (I). As substitute for nitrate and nitrite, nicotinic acid amide (V) and ascorbic acid (VI) were found to have some effects for maintaining colour of (II), but their effects are not high enough. The effects of (V) and (VI) can be increased by mixing with (III).

(III) is pref. rice germ. Pref. examples of (IV) are (V) and (VI), and esp. the mixt. of (V) and (VI) in the ratio of (V)/(VI) = $^1/_{0.3}$ - $^1/_{1.0}$. The amt. of (I) used is 0.2-1.0wt.% on (II). (I) is dissolved in water in conc. of 0.1-10wt./vol. % and (II) is soaked in the soln. for 40 mins. - 6 hrs.
24.10.77 as 127898. (8pp42)

SANY ★ D12 48310B/26 ★J7 9014-174
Minced fish flesh prepn. - by treating with lipase and treating with water
SANKYO KK 18.06.71-JA-043794
(05.06.79) A23l-01/32

Fish flesh is first treated with lipase, and then bleached with water 500-1000 units of lipase are used to treat 100g minced flesh at room temp. for 1 hr. with agitation. The prod. is treated with 5-10 times as much vol. of water 3-8 times. Prod. has good taste, flavour and storage stability. 18.6.71 as 043794, A231-1/325 (5.6.79) SANKYO KK (2pp22) (J4 8008961)

UNIL D12 21835S/12 =NL-160-479

✓ **Dehydrated meat-based food product**

UNILEVER NV 17.09.69-GB-045816
*(15.06.79) *BE-756-301 +A23l-01/31*

A dehydrated meat prod. is prepd. by (a) mixing comminuted, uncooked meat, $\not> 15$wt.%, w.r.t. the mixt., of a starch-rich plant material in which the cell structure of the plant material has been retained, and fat, (b) shaping the mixt., (c) heating the shaped prod. until the protein has been coagulated, and (d) finally dehydrating.

The prod. is easily and uniformly rehydrated to give a firm structure resembling meat. Meat balls of dia. 2 cm. are completely rehydrated in 5-10 mins. The plant material is pref. dried potato, as powder, granules or flakes, and is pref. pre-cooked. The amt. is esp. 5-15%; smaller amts., 2-5wt.%, may be used if the mixt. also contains comminuted cooked meat, and if a short rehydration time is not necessary. The amt. of cooked meat may be 20-60-wt.% of the total meat.

The fat content is partic. 4-20 (8-13)wt.%, but may be increased to 20-30wt.%. The mixt. may contain 5-15wt.% of water, giving a more porous prod., which can be more rapidly rehydrated. Drying is pref. in air at 50-95°C (90°C) to a moisture content of < 10% (5-6%). 17.9.70 as 013800. (9pp510)

MOBA- ★ D12 48334B/26 ★NL 7713-637

Device for hanging a fowl by the knee joint - has means for clamping and releasing the bird's feet and for counteracting forces exerted during preparing and packaging of the bird

MOBA HOLDING BARN 09.12.77-NL-013637
Q31 (12.06.79) A22c-21 B65b-25/06

A hook for hanging a fowl by the knee joints comprises two claws, or, pref., a single claw on each side of which is a finger capable of rotating about a vertical or nearly vertical shaft. The fingers, in the clamped condition, are inclined slightly upwards and are turned up at their outer ends. A clamping piece moves vertically down toward the fingers and is attached to a rack mechanism by means of which it can be locked in the desired position determined by the thickness of the knee joints to be clamped in the device. The mechanism is pref. attached to a hinged lever enabling the device to be released.

The device is carried on a carriage suspended from a rail so that it can be moved from station-to-station in the prepn. or packaging of the fowl. The mounting is pref. such that the device can be swung forwards or backwards to suit the operation being carried out.

The device will reliably grip and release the knee joints of a fowl and, at the same time, will resist upward or backward movements exerted on the fowl during the sourse of the prepn. or packaging operations. This eliminates the need for additional supports at each treatment station. 9.12.77 as 013637. (17pp1370)

MOBA- ★ D12 48335B/26 ★NL 7713-638

Device for enclosing and modelling a fowl - has hinged, dished sides and hinged guide plates to reliably enclose wings

MOBA HOLDING BARNEV 09.12.77-NL-013638
Q31 (12.06.79) A22c-21 B65b-25/06

A device for modelling fowls consists of a chamber formed by a rear dish attached to a slide, and two front dishes, one at each side of the chamber and hinged to the front extremities of the rear dish so that, when the two hinged dishes are swung together, the chamber is formed which encloses the fowl. The movement of the slide toward the bird causes the curved plates to be swung inwards so that they come together in the centre back of the bird. The curve of these plates matches the outer trajectory of the tips of the hinged dishes so that, as the latter come together they rub along the inner face of the curved plates ensuring that the wings of the bird are totally enclosed and finally come to lie against the bird's body. Each of the hinged elements is actuated by arms and followers which engage in guides in the body of the slide, the movement of which consequently controls the movement of the elements. A lever locks the slide in either the open or closed position.

The mounting assembly is also equipped with a
for hanging the bird by the knee joints which can b
downward, bringing the bird within the space encl
the modelling chamber.

The device guarantees that, regardless of the i
position of the bird's wings, they finish up in the c
position against the body. 9.12.77 as 013638. (1

MOBA- ★ D12 48336B/26 ★NL

**Device for modelling or packaging objects partic. fowls - h
of mechanically registering oversize object and releasing
alternative manner**

MOBA HOLDING BARN 09.12.77-NL-013639
Q31 (12.06.79) A22c-21 B65b-25/06

An object to be packaged, partic. a fowl, is grippe
modelled in a chamber with hinged, dished ends wh
bring the wings to the body of the fowl and lay them
st the body in the correct position. The mechanism
arranged so that, in the event that the fowl exceeds
normal size, the chamber does not fully close, the
mechanism for holding the chamber closed being se
from the dished ends by means of springs.

The device is pref. mounted on a carriage which
els along an endless track. Guide rails on the trac
frame actuate followers on the device which control
mechanism. If the chamber does not fully close, a
native set of guides come into play which permit the
to be released in a different manner to the normal.

The arrangement of the actuating mechanism pe
fowls of varying body size to be handled without the
of jamming or damage to the bird or the equipment.
size birds can be identified and sepd. during the ope
9.12.77 as 013639. (22pp1370)

MOBA- ★ D12 48337B/26 ★NL 7

**Device for holding and treating e.g. fowl - has holding e
equipped with sensor which grips bird by the knee**

MOBA HOLDING BARN 09.12.77-NL-013640
Q31 (12.06.79) A22c-21 B65b-25/06

A device for holding and treating an object, partic.
has a holding element which, in the case of fowls, g
the bird by the knee joint, equipped with a sensing p
to detect the presence of the object. The probe cons
of two arms pivoted about a horizontal axis mounted
the main frame of the device and pushed by springs i
first position. The arms are only able to adopt this
tion when no fowl is present in the hook and clamp de

When this condition exists, the upper ends of the
prevent the subframe to which the hooks are attache
from lowering into the packaging position. The mai
frame is pref. mounted on a mobile carriage which
les the device to be moved from station-to-station al
suspension rail. Followers on the sensing probe are
ed at a certain stage of the process to move the prob
arms apart from the receipt of a fowl. The follower
then released. If the fowl is present, the arms will
go back to the first position and the subframe will be
allowed to lower the fowl to the packaging holder.

The device prevents the packaging equipment fro
operating when the object to be packaged is either no
present or is incorrectly held thereby preventing pos
damage. 9.12.77 as 013640. (15pp1370)

TEKH/ ★ D12 48494B/26 ★SU -6

**Filling jars with fish fillets - using a combination of calibrati
proportioning containers with knife and sliding gate w
synchronously**

TEKHRYBPROM EXP PRD 01.03.77-SU-457400
Q31 (20.07.78) B65b-25/12

Machine for filling jars with fish, without any proport
ing of the pieces, comprises a vibrating loading hopp
calibrating and proportioning containers arranged one
above the other with a gap between, and a knife drive
backwards and forwards horizontally. Construction
simplified and productivity increased by inserting a s
ing gate in the gap, which is driven backwards and fo
wards in both the vertical and horizontal directions,
horizontal motion being synchronised with the movem
of the knife. The slider comprises two rib-connected

, the shape corresponding to that of the openings in
vo containers, the latter having slots to cater for the
cting ribs. The fish ducts in the hopper are curved
omprise shaped troughs.
in, V.V., Vaskov, I.V., Zatsepilin, A.T. et al.
32/30.8.78. 1.3.77. as 457400 (4pp29)

★ D12 48954B/26 ★US 4158-065

**meat substitute prepd. from fish - by shredding heat-set block
shed fish**

GIYO CO LTD 16.12.77-US-861217
(12.06.79) A22c-25 A23l-01/32

A crab meat substitute is prepd. by heating mashed fish in a mould to gel it and form a moulding of jelly strength 300-1500g.; and shredding the moulded fish into fibre-like pieces of width 0.25-3.0mm and cross-sectional area up to $2.25mm^2$.

Fibres of the stated jelly strength and dimensions are similar to myotomes of crab muscle, so the prod. has a realistic texture. 16.12.77 as 861217 (10pp955).

See Also

D13 DT 2756739 D13 J7 9014173

D13: OTHER FOODSTUFFS

R- ★ D13 47147B/26 ★BE -872-888

**e yeast product used as cocoa substitute - prepd. by roasting a
yeast**

OORS FOOD PROD CO 05.12.78-US-964802 (22.12.77-US-
63079)
D16) (20.06.79) A23l

ore roasting, the yeast is pref. dried to <5%, esp.
%, moisture content. The roasting is pref. at 100-
°C for 1-50 mins., esp. 150-275 for 2-25 mins. Be-
e roasting, the yeast is pref. washed esp. as a slurry
washing agent at pH >6, followed by sepn. and wash-
of the residue.

The product is used as an extender, substitute or re-
cement for cocoa or chocolate in foodstuffs. Unlike
evious products, it has the same colour, textile, taste,
d aroma as cocoa. It can be used as a total replace-
ent for cocoa powder without addn. of other flavouring
ents. 20.12.78 as 872888 (18pp597)

JE- ★ D13 47150B/26 ★BE -872-891

**fertiliser, animal feed or human feed prodn. - from
oteinaceous animal material by ultra homogenisation,
glomeration and drying**

BLUE WING CORP 16.06.78-NZ-187600 (21.12.77-NZ-186057)
C03 (C04) (20.06.79) A23b A23j C05f

rodn. of dehydrated plant fertiliser, animal feed or hu-
an food comprises first ultrahomogenising raw or un-
ooked animal material contg. protein. The homogenate
then heated to form an agglomerate of the proteins,
nd this dried to give a particulate prod.

Pref. homogenisation reduces particle size to <3
nicrons and agglomeration is at 50-85°C. The agglomer-
te may be partially dried, esp. at ≯95°C to 20-50 wt.%
noisture, then divided into fragments and these further
lried to ≯8% moisture.

Low energy process producing easily digested prods.
rom slaughterhouse waste. These can be stored without
refrigeration and are reconstituted with water before use.
Prods. made e.g. from bones, are useful as fertilisers.
20.12.68 as 872891 (42pp1251)

NEST ★ D13 47165B/26 ★BE -872-945

**Decaffeinating aq. tea extract - by cooling, sepg tannin complex,
extracting and recycling tannin**

SOC PROD NESTLE SA 12.01.78-US-868938
(21.06.79) A23f

The process for a tea extract contg. caffeine and tannins capable of forming a complex with the caffeine comprises the following steps. The extract is cooled sufficiently to form a soluble phase contg. a part of the caffeine and an insoluble phase contg. tannins complexed with another part of the caffeine. The insolubles are sepd. and treated to extract the caffeine. The extracted tannins are then add added to the soluble phase.

The process enables removal of caffeine without loosing tannins, which contribute to the taste of the tea. 21.12.78 as 872945 (15pp597)

NEST ★ D13 47198B/26 ★BE -873-020

Improving consistency of reconstituted purees esp. of vegetables - by incorporating unrefined vegetable fibres

SOC PROD NESTLE SA 06.02.78-CH-001263
(22.06.79) A23l

Process comprises incorporating in the instant puree up to 10% unrefined vegetable fibres (dry weight) based on the total dry solids. By instant puree is meant products, generally in flake or granular form, which usually contain 5-8% moisture. The process is esp. applied to potato, carrots and peas. The addn. of the fibres enables a constant consistency in the reconstituted puree when mixed with water in spite of variations in the quality and type of vegetable used.

The amt. of fibres is pref. 1-5%, esp. an amt. corresp to 0.5-4% cellulose. The fibres are pref. from tubers, cereals or fruits, esp. from potato, carrots, corn, and bran. The fibres are pref. incorporated by dry mixing, or by mixing with the puree before drying. The puree is pref. in granular or flake form. 22.12.78 as 873020 (12pp597)

MUND/ ★ D13 47225B/26 ★BE -874-275

Animal feeds contg. cement kiln flue dust - for increased weight gain and improved health

MUNDY R E 18.02.78-GB-006529
C03 (18.06.79) A23k

Animal feed compsns. comprises at least one foodstuff and flue dust from a cement kiln.

The flue dust can be added in dry powder form or in the form of an aq. dispersion and/or soln. It can be used at a rate of 113.4-453.6g per day.

Incorporation of the flue dust in feeds for horses, cattle and poultry gives increased wt. gains and is stated to improve health (relieving arthritis and other bone disorders, cramps, rickets, etc.). 19.2.79 as 874275 (6pp)

OLIV/ ★ D13 47234B/26 ★BE -874-320

Machine for filling moulds with chocolate - has spring loaded wiper and distribution body with inclined leading edge, adjustable side walls and heating elements

OLIVER C 21.02.79-BE-874320
(18.06.79) A23g

Chocolate moulds are filled with molten chocolate by means of a machine comprising a conveyor mechanism on which the moulds are placed end to end, the moulds lying within side walls which are moveable and pref. hydraulically or pneumatically controlled, a chocolate feeder and a wiper body equipped with a chute into which the chocolate is poured and a distribution slot through which the molten chocolate flows into the moulds. The wiper body has an upwardly inclined leading edge over its entire width and is equipped with internal heating elements. It is held down by springs on adjustable bolts, the inclined leading edge assisting the wiper body to ride over the moulds.

The machine is inexpensive, can accommoate a range of moulds of different widths and heights and is so constructed that the machine components do not become smeared with the molten chocolate. 21.2.79 as 874320 (8pp)

ALFA D13 41024W/25 =DS 2502-664
Sepn of skimmed milk from milk or cream - using filter sheet with pores below 10 microns dia
ALFA-LAVAL AB 07.03.74-SW-003019
*P13 (21.06.79) *BE-825-076 A01j-11/10 A23c-09*

A system for the sepn. of skimmed milk from full cream milk by filtration uses a filter material with pores of 0.2-10μ (1μ) dia. The milk flows along the filter surface at a speed of ≥ 0.5 m/sec. (max. 20 m/sec) and the skimmed milk is pressed through the filter by a pressure differential of ≥ 0.1 kgf/cm^2. Most of the fluid enriched with cream is recycled to the filter inlet.

This is a simpler and cheaper way of cream separation than centrifuging and can be used on a commercial scale. 23.1.75 as 502664(4pp39)

MUNK/ ★ D13 47363B/26 ★DT 2756-679
Low calorie food prods. - prepd. by adding milk derivs. to vegetable or spice treated with acid infusion
MUNK W G 20.12.77-DT-756679
(21.06.79) A23c-23 A23l-01/30

Low calorie foods are prepd. by (i) cleaning and comminuting vegetables and spices, then (ii) mixing with an acid-contg. infusion to set mixt. pH 4.3-3.5; (iii) pasteurising, (iv) mixing, before consumption, with milk prods., e.g. yogurt, sour milk, sour cream or cheese, and (v) packaging.

The milk prods. may be replaced by milk admixed with yogurt bacteria, in which case the compsn. is incubated before packaging.

The nutritional properties of the foods correspond to those of natural yogurt. 20.12.77 as 756679 (5pp200)

FREU ★ D13 47368B/26 ★DT 2756-739
Processing animal carcass, bone and meat waste - by enzymatic alkaline or acid hydrolysis opt. after protein denaturation, giving prods. useful in foodstuffs, feedstuffs and fertilisers
FREUDENBERG, CARL FA 20.12.77-DT-756739
C03 (C04 D12 D16) (21.06.79) C07g-07

Comminuted animal carcase-, bone- and meat waste is enzymatically hydrolysed, opt. after an acid or alkaline protein denaturation at 100°C and cooling to 30-70 (50)°C. Hydrolysis takes place at the optimum pH for the enzyme used. Fat and protein hydrolysate are then sepd. from one another, by unmixing, e.g. by centrifuging at 80-100°C, and the insoluble residue is opt. filtered off.

The protein prods. can be used in super-protein diets, or as food additives e.g. in diabetic foods, soup flavours, animal feedstuffs, etc. The difficultly soluble residue obtd. in bone processing can be used as fertiliser or as animal feedstuff additive. Waste prod. treatment is quick, e.g. 3 hrs.; non-polluting and odourless. Water-insoluble protein hydrolysates are obtd. in high yields. 20.12.77 as 756739 (10pp200)

KOLB/ ★ D13 47381B/26 ★DT 2757-366
Enzymatic protein hydrolysate prepn. from oil seeds - using Bacterium Streptococcus faecalis var liquefaciens as protease generator
KOLB H 20.12.77-DT-757366
(D16) (21.06.79) A23j-01/14 C12d-13/06

Gp. D Bacterium Streptococcus faecalis var liquefaciens is used as extracellular protease generator in protein hydrolysate prepn. from oil seeds, esp. from so-called press-cakes, e.g. soyabean press-cakes. The bacterium is pref. added in quantities over 1 x 10^7 organisms to heated soya milk obtd. by comminuting press-cakes. Bacterial growth and proteolysis take place at 36-40°C and pH 6.5-7.5. After proteolysis, insoluble constituents, esp. cellulose, and also the bacteria, are removed by centrifuging or filtration.

The proteolysis prod. contains about 3% protein hydrolysate and can be used for protein-enrichment of foods. The hydrolysate can be evaporated to dryness and used in mfr. of bread, cereals, confectionery, pudding- and soup powders, etc. The protease can be separated and used as beer stabiliser, as papain replacement for tenderising meat, in cheese mfr. for liquefying slaughterhouse waste to produce animal feedstuffs and in pharmaceutical industry. 20.12.77 as 757366 (13pp200)

BOZE/ ★ D13 47547B/26 ★FR
Industrially drying and sterilising organic waste for fod passing prod. exhaust fumes through air heater to burn off
BOZEC R 19.04.77-FR-011724
C03 Q76 (25.05.79) A23k-01 F26b-03 F26b-21

A batch of waste is loaded into a closed vessel whic heated externally on its base with a primary circuit air ducted from an air heater. Before exhaust to at primary air is passed through a recuperative heat e ger to transfer heat to air drawn in from atmos. fo secondary circuit. Secondary circuit air at a temp. - 120°Cis passed through the head space of the vess then to the intake of the air heater to provide prima cuit air.

The vessel is equipped with power-driven mixer operates during heating. A fan is used to draw air the secondary circuit for delivery through the air he into the primary circuit. The installation is instrum for automatic control of temp. and for moisture cont of the prod..

Used in prodn. from organic waste of a high prot (25 - 30%) prod. for cattle fodder. The waste can inc poultry droppings from broiler hoover and hen batte kitchen waste, waste from abattoirs, animal manure Process is clean and operates at high thermal efficie 19.4.77 as 011724 (9pp448).

FRAN- ★ D13 47557B/26 ★FR 24
Rotating palette for lifting truck - for manipulating, turning ov transporting round cheeses
FRANCHECOMTE UNION 26.09.77-FR-029862
P13 Q35 Q38 (25.05.79) A01j-27 B65g-61 B66f-09/14

Appts. for manipulating, turning over and transporti round cheeses comprises the rotating palette of a lift truck having a mechanism for turning the appts. arou its axis. The appts. is mounted on the rotating palett of the truck and can turn around an axis; it comprises number of horse-shoe shaped pressings each provide a platform.

In use, the truck is advanced towards the palette r with the cheeses on the shelves. The plates are intro ed between the upper faces of the cheeses and the low faces of the shelves immediately below. It is then pos to turn the appts. assembly through 180° so that, whe the movement is completed, the cheeses rest on the p

The cheeses are kept in position by the horseshoe-shaped pressings during the rotation which may be in either direction. The cheeses can be extracted withou being touched by hand and deposited on a clean surface modifying the dia. of the pressings, the appts. can be adapted to cheeses of any category. 26.9.77 as 029862 (8pp519).

MCKE- ★ D13 47574B/26 ★GB 154
Addition of salt to curd during processing - by sensing curd and controlling salt discharge from hopper to curd conveyor
MCKENZIE & RIDLEY 22.04.75-NZ-177297
Q35 (27.06.79) B65g-47/19

Appts. for use in the processing of curd includes a sal hopper having a gate, a curd conveyor and a pneumatic conveyor for passage of the salt from the hopper to the curd on the vonveyer. A sensor in the form of a fork mounted on a shaft is linked to a control for operation opening or closing the gate so as to increase or decrea the salt flow from the hopper.

Used for addition of salt to curd in cheese making p cesses. The salt hopper and salt conveyor can be place in a separate room or different part of a building from curd conveyor and so save space and provide an adapta operation. A cover having a transverse groove is locat above the curd conveyer to regularise and contain the transverse oscillations of a salt discharge pipe. 22.3.7 as 011431(5pp1044)

PHAR- D13 83389X/45 =GB 1547-
Sonde food for artificial feeding - contg. ballast materials adde balanced food slurry having full food-value
PHARMA HAMELN KERST 17.04.75-DT-517040
*(27.06.79) *DT2517-040 A23l-01/34*

ent by means of a stomach tube by preparing a ster-
wable compsn. contg. pr·otein, fat and carbohydrates
r sugar alcohol and incorporating 0.2-25 wt.% of
ble roughage in suspension.
ef. an aq. soln. of the water soluble constituent is
. and transferred into a protein-stabilised oil-in-
emulsion in which the starch and raw fibres of the
age are stably suspended.
p. used used with foodstuffs which do not strain the
oitestrinal tract of the patient, therefore releiving
its natural function. 15.4.76 as 015600(3pp931)

) D13 50430Y/29 =GB 1547-911

**le polypeptide aq. compsn. obtd. from soya protein - by
olytic enzymatic treatment, suitable as additive for drinks and
reserves**

OVO INDUSTRI A/S 19.01.76-GB-002042

*16) (27.06.79) *BE-850-478 +C07g-07*

n. of a polypeptide prod. contg. polypeptide soluble
. media of pH 2-7 is claimed. Polypeptides are der-
from soy protein and are suitable for use as an addi-
for low protein acid food prods.
oy protein is hydrolysed in aq. medium with microbial
line proteinase in a concn. corresp. to proteolytic
vity 4-25 Anson units per kg. of soy protein with a
strate concn. of 5-20 wt% w.r.t. soy protein, at pH
0 at 15°C below temp. optimum up to the temp. optimum
l a degree of hydrolysis of 8-15% is attained. Enzyme
nactivated by pH reduction using a food grade acid, the
er n atom sepd. from the ppte. and treated with acti-
ed carbon.
Esp. used in beverages, soft drinks, carbonated soft
nks, marmalades and jams. 4.1.77 (6pp931)

N ★ D13 B/26 ★IT 1030-007

us fruits drinks or extracts prepn.

LYONS LTD 10.04.68-GB-017242

(30.03.79) A23l

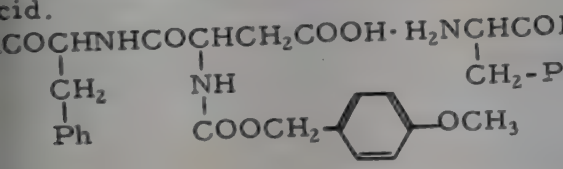
YJ ★ D13 47801B/26 ★J5 4061-140

**ha-aspartyl-phenylalanine alkyl ester sweetening agent prepn. -
decomposing adduct of N-para-methoxy benzyloxy:carbonyl-
ha-aspartyl-phenylalanine alkyl ester and phenylalanine alkyl
er**

TOYO SODA KK (SAGA) 19.10.77-JA-124599

B05 E14 (17.05.79) C07c-103/52

Aspartyl-phenylalanine alkyl ester (I) of formula
$\mathrm{COCH(-CH_2-Ph)NHCOCH(-NH_2)CH_2COOH}$ (where R is
-5C alkoxy) is prepd. by dissolving an adduct (1 : 1) (II) of
-p-methoxybenzyloxycarbonyl-α-aspartyl-phenylalanine
kyl ester and phenylalanine alkyl ester opt. contg. water
crystallisation in liq. medium and decomposing (II) with
cid.



$$\mathrm{COCH(CH_2Ph)NHCOCH(NHCOOCH_2C_6H_4OCH_3)CH_2COOH \cdot H_2NCH(CH_2Ph)COR}$$

(II)

(I), known as a potent sweetening agent, can be obtd. without disadvantages
uch as racemisation, unfavourable side reactions or
rodn. of β-aspartyl cpd.
In an example, N-p-methoxybenzyloxycarbonyl-L-as-
argic acid and L-phenylalanine methyl ester hydrochlor-
de were used to prepare a N-p-methoxybenzyloxycarbon-
yl-α-L-aspartyl-phenylalanine methyl ester and L-phenyl-
alanine methyl ester 1:1 adduct. A soln. of the adduct in
acetone was mixed with 2.4N hydrochloric acid at 60°C
for 1 hr. Chromatogram of the reaction mixt. showed α-
L-aspartyl-L-phenylalanine methyl ester. Conversion
was 72.7%. 19.10.77 as 124599. (13pp104)

QPPP ★ D13 47830B/26 ★J5 4061-200

Egg yolk phospholipid prodn. - by extn. with aq. ethanol followed by solvent removal

Q.P. CORP 25.10.77-JA-127915

B04 (17.05.79) A23j-07

Prodn. of egg yolk phospholipid comprises extracting dry egg yolk with ca. 92-96vol.% of aq. ethanol solvent at < 35°C and removing solvent from resultant extract.

Egg yolk phospholipid may be applied as emulsifier in
the field of pharmaceuticals.

In an example, fresh egg yolk liquor (22 kg.) was subjected to freeze-drying; 95% ethanol (90 l.) was added to 10 kg. of dried egg yolk (water content 1%), resultant mixt. was stirred and extracted for an hour. Extraction temp. was 22.5°C. Then, the mixt. was filtered under reduced press., residue after filtration was washed with 95% ethanol (10 l.), filtrate and washed liquor were combined to form one extract, and the extract was subjected to distn. under reduced pressure to distill off solvent and give crude egg yolk phospholipid (2.6 kg.). Phospholipid content was 66.7%. 25.10.77 as 127915. (3pp69)

TORO- ★ D13 47926B/26 ★J5 4061-986

Compsn. for detection of chlorine in milk - consists of silver chromate protective colloidal substance, surfactant and buffer

TOYO ROSHI KK 27.10.77-JA-128167

E36 J04 R16 (18.05.79) G01n-33/04

Compsn. for the detection of chlorine in milk consists of silver chromate-protective colloidal substance, surfactant and buffer agent of pH 2-7. The test piece is mfd. by supporting silver chromate-protective colloidal soln. on an absorptive carrier, drying it on a plate, immersing in a soln. contg. surfactant and buffer agent of pH 2-7, and drying.

Chlorine in milk can be simply, rapidly and precisely detected and also be determined by the comparison of colour formed with standard colour table. 27.10.77 as 128167. (5pp50)

NITL ★ D13 48035B/26 ★J5 4062-296

Modified protein resins prod. - by heating a blocked polyisocyanate to cleave the blocking agent and react the prod. with a protein

NITTO ELECTRIC IND KK 26.10.77-JA-129098

A26 B07 C03 (A96 A97 B04) (19.05.79) C08g-18/64 C08h-01

The process comprises heating a blocked polyisocyanate cpd., in which the isocyanate gps. are protected with a blocking agent, to a temp. at which the blocking agent is cleaved in the presence of a water-soluble protein, thus reacting the resulting prod. with the protein. Pref. the polyisocyanate cpd. and protein are contacted in an aq. medium which is removed before formation of the heat-cleaved prod. The polyisocyanate is of formula M–OCNH–R–NHCO–M (where R is a divalent aliphatic, alicyclic or aromatic gp.; and M is a residue of a blocking agent of formula H–M, having a reactive hydrogen).

The prod. has good moisture resistance and is decomposed by bacteria, enzymes, etc. It can be used for coating for agricultural chemicals, fertilisers, etc., and medical and food materials, etc.

The blocking agent is e.g. (m)ethanol, phenol, ethylmercaptan, thionaphthol, hydrocyanic acid, N-methylaniline etc.; the protein is e.g. albumin, gelatin, casein, polyamino acid, polypeptide, etc. It is obtd. by e.g. foaming an aq. soln. of protein (10-40wt.%), adding a blocked polyisocyanate emulsion (25-50wt.%); subjecting the mixt. to forming (i.e. coating, moulding, etc.), evaporating water by heating to a temp. below that for cleavage, and effecting reaction of the cleaved polyisocyanate and the protein (120-180°C). 26.10.77 as 129098. (4pp119)

NIOF ★ D13 48053B/26 ★J5 4062-339

Improving taste of fatty food - by adding leucine, aspartic acid, glutamic acid and other aminoacid, and carbonyl cpd. and heating

NIPPON OILS & FATS KK 25.10.77-JA-127261

(19.05.79) A23c-15 A23c-19 A23d-03 A23d-05 A23l-01

Improvement in taste of fatty food (I), comprises heating (I) after the addn. of (i) leucine, aspartic acid, glutamic acid and ≥1 other amino acid (II) and (ii) carbonyl cpd. (III). A milk-like taste is imparted to (I).

As (I), butter, cheese, margarine, shortening, etc. are used. (II) is valine, glycine, lysine, cystine, proline, phenyl alanine, alginine and histidine. (III) is ribose, arabinose, xylose, glucose, fructose, sucrose, α-dicarbonyl cpd. and α-hydroxy carbonyl cpd. The quantity of amino acid added is 0.01-5wt.% on (I) and the wt. ratio of (III)/amino acid is 0.4-5. After addn. of amino acids and (III), (I) is heated at 100-200°C for 10-60 mins. 25.10.77 as 127261. (4pp42)

YAMA ★   D13   48055B/26 ★ J5 4062-364

Drink for preventing dental plaque formation - comprises lactic acid bacteria contg. sucrose fatty acid ester

YAMANOUCHI PHARM KK   24.10.77-JA-127394
E13   (19.05.79) A23c-07 A23c-09/12 A23l-01

The drink (I) usually has a high content of sucrose, which forms dental-plaque, and the addn. of the ester (II) to (I) prevents this dental plaque formation.

Pref., (II) is sucrose laurate, sucrose stearate, sucrose oleate and/or sucrose palmitate. Combination of (II) is sucrose stearate and sucrose palmitate, contg. > 45% of sucrose monofatty acid ester; the concn. of (II) in (I) is 0.05-5wt.%; and sugars, such as fructose, maltose, dextran, lactose, etc., sugar alcohol, such as sorbitol, mannitol and xylitol, flavouring agent and surfactant other than (II) may be added. 24.10.77 as 127394. (4pp42)

POLA   D13   65183Z/00 = J7 9013-494

Flavouring method

POLAK'S FRUTAL WORKS INC (POLA-)   11.09.67-US-666980
*B05 E19   (31.05.79) *BE-720-629*

TAKE ★   D13   48243B/26 ★ J7 9013-495

Granular seasoned food - contg. hydrolysate of vegetable or animal protein and edible fat

TAKEDA CHEMICAL IND KK   15.12.71-JA-101609
(31.05.79) A23l-01/22

In prepn. of powder food contg. hydrolysate of vegetable or animal protein, 1-8 wt % of edible fat is added to the starting material, the mixt. is shaped into plate of hardness of 0.05-0.4 kg and the plate is crushed and sieved. 15.12.71 as 101609, A231-1/22, (31.5.79) TAKEDA CHEMICAL IND KK (10pp22) (J4 8067470)

MAZN ★   D13   48244B/26 ★ J7 9013-497

Prepn. of liquorice - by dissolving liquorice extract in edible solvent, and emulsifying by adding edible fat

MARUZEN KASEI KK   27.01.72-JA-009460
(31.05.79) A23l-01/22

Extract of liquorice is dissolved in water, alcohol, propylene glycol sake, liquid sugar, sorbitol, maltitol, or other edible liquid in such an amt. that content of glycyrrhetine is ≮ 6 wt % and then edible fat is added thereto in equivolume to 10 times as much volume, to emulsify it. 27.1.72 as 009460, A231-1/22 (31.5.79) MARUZEN KASEI KK (3pp22) (J4 8080769)

KYOW ★   D13   48245B/26 ★ J7 9013-498

Sweetening compsn. comprising stevioside or glycyrrhizin - mixed with peptide or aminoacid mixt. obtd. by collagen or gelatin hydrolysis

KYOWA FERMENTATION KK   31.08.73-JA-097353
B05 E19   (31.05.79) A23l-01/22

Stevioside or glycyrrhizin is mixed with peptide and/or amino acid mixt. which is obtd. by hydrolysis of collagen or gelatin contg. proline, oxyproline or glycine in an amt. of > 5%.

The compsn. shows sweeting effect like sugar and is free from bitter taste. 31.8.73 as 097353, A231-1/22 (31.5.79) KYOWA FERMENTATION KK (6pp22)(J50048172)

GIVA   D13   43869T/27 = J7 9013-499

Synthetic meat aroma - contains amino acids a pentose and a polyalcohol

GIVAUDAN L & CIE SA   23.12.70-CH-019071
*E19   (31.05.79) *BE-777-197 A23l-01/23*

Synthetic meat aroma is prepd. by heating a mixt. of proline cystein, methionine, pentose and a polyalcohol, The amino acids from 2-40% of the mixt. and the amino acid mixt. contains > 50% proline, 0.4-18% Pentose (pref. ribose) is present and 9-90% of a polyalcohol (pref. glycerine). The mixt. is heated to 90-170°C. 13.12.71 as 100261 (clg. 31.12.70-CH-019071) A231-1/231 (31.5.79) GIVAUDAN & CIE S.A.L (4pp) (J4 7014368)

TAKS ★   D13   48246B/26 ★ J7 9013-500

Meat-flavoured food prepn. - by heating a sugar with aminoacid, and adding a phosphatide extracted from animal meat

TAKASAGO PERFUMERY KK   02.03.73-JA-024388
(31.05.79) A23l-01/23

ino acid, such as lysine, alginine, glutamic acid,
adding phosphatide obtd. by extraction of animal m
By the addn. of the phosphatide, the meat flav
be improved. 2.3.73 as 024388, A231-1/231 (31.5.
KAMISHIMA CHEM. IND. KK (3pp22) (J4 9110870)

MILE   D13   11559Y/07 = J7

**Bland protein enriched grain gluten prepn. - by contact wi
contg. ethyl acetate and washing with water (NL080277)**

MILES LABORATORIES INC   04.08.75-US-601470
*(05.06.79) *DT2634-853 A23j-01/12 + A23j-03*

Prepn. of a bland, protein-enriched prod. in which
grain gluten (pref. maize gluten) is contacted with
contg. 70-100% Et acetate, 0-15% aliphatic 1-4C al
and 0-30% water (each w.r.t. total solvent wt). Glu
sepd. from solvent, washed with water, and dried,
Prod. can be added to plant protein, e.g. soay be
tein to increase nutritional value and make up S-co
aminoacid deficiencies. Combinations can be used
of textured plant protein products and meat substit
Prod. is tasteless, colourless and contains ≈ 70
tein. Grain glutens are rich in S-contg. aminoacids
methionine and cystine, (ii). Use of a single solven
an azeotropic recycle mixt. is economical. Solvent
recovered and re-used. 26.5.76 as 060221 (clg. 4.8
601470) A23j-3/00, 1/12 (5.6.79) MILES LABORAT
INC. (4pp) (J5 2018847)

NEST   D13   30965Y/18 = J7

**Vegetable protein food prod. as meat substitute mf
compressing moistened laminate of protein films and cookin**

SOC PROD NESTLE SA   14.11.75-CH-014786
*(D12)   (05.06.79) *BE-847-840 A23j-03*

Mfr. of a food prod. based on vegetable protein, part
comprises first forming a layer of an aq. colloidal
ion (I) of vegetable protein and fatty material on a h
surface. It is then dried to form a coherent film wh
detached from the heated surface. The film is moist
and a pile of superimposed layers of moistened film
formed. Finally the pile is then compressed and coo
(I) pref. contains 10-30% solids, the film is moist
a 10-90% moisture content. Prod. is a distinctive m
-stitute. It can be sliced into pieces which can vary
ture from omelete, Italian cheese to roast veal. 12.
as 136155 (clg. 14.11.75-CH-014786) A23j-3/00 (5.6
SOC. PROD. NESTLE SA (6pp) (J5 2061259)

SAOK   D13   37364Y/21 = J7 9

**Enhancing taste of sugary sweeteners - by addn. of mother
obtd. from extn. of stevioside**

SANYO KOKUSAKU PULP (SANN)   08.10.75-JA-120786
*B03 E13   (05.06.79) *J52047-959 A23l-01/22*

Mother liquor obtd. after sepg. crystalline stevioside
the liq. extract of the leaves of stevia, (a plant belon
Compositate) is added at 1-100 wt % w.r.t. the surg
sweetener, and mixed uniformly.
The mother liquor can strengthen the sweetness o
sweetener without deterioration of the original taste
with decrease in the heavy sugary taste. 8.10.75 as
A231-1/22 (5.6.79) SANYO KOKUSAKU PULP (3pp)
(J5 2047959)

SAOK ★   D13   48312B/26 ★ J7 90

**Synthetic sweetener compsn. - contg. mother liquor from ppt
sepn. of stevioside**

SANYO KOKUSAKU PULP   08.10.75-JA-120787
B03 E13   (05.06.79) A23l-01/23

In the prepn. of synthetic sweetening compsn. mother
obtd. by pptn. and sepn. of stevioside is added to the
in amt. of 5-320 wt %. The synthetic sweetening comp
may be any conventional ones. By this method, the ta
and flavour of the compsn. can be improved. 8.10.75
120787, A231-1/236 (5.6.79) SANYO KOKUSAKU PUL
(3pp22) (J5 2047960)

TORA   D13   76773W/46 = J7 901

**D-tartaric acid prodn - by assymetrical microbiological hydroly
cis epoxy succinic acid**

TORAY INDS INC   30.04.74-JA-047525

artaric acid (I) is made by assymetrical hydrolysis of
epoxysuccinic acid (II) in aq.medium using a microorg
sm from the genus Achromobacter or Alcaligenes hav-
(II)-hydrolysing activity. (I) is useful as a food additive.
microorganisms used may be e.g. Achromobacter tar-
ogenes, Achromobacter epoxylyticus, Achromobacter,
nus, Alcaligenes epoxylyticus, Alcaligenes margaritae,

The microorganisms is cultured in aq. nutrient, in the
sence of the (II) at pH 6.5-9 for 2-20 hrs. at 20-50°C (I)
recovered e.g. by passing the (filtered) medium through
anion exchange column to absorb (I), followed by elution
. with HCCOH, or by pptn. as the Ca salt. 30.4.74 as
525, C12d-1/02 (5.6.79) TORAY INDS KK (10pp)
0140683)

TY D13 14862V/08 =NL-160-478

ocolate prodn - for mfr of high grade chocolate prods

NABISCO INC 04.08.72-DT-238519

*(15.06.79) *NL7310-557 A23g-01/02*

chocolate compsn. is prepd. by (a) shelling raw cocoa
ans, (b) comminuting or grinding the beans to a liq.
coa compsn., (c) during or after the comminution or
inding, degassing the cocoa compsn. by heating it to $\not>$
°C under a pressure of $\not>$0.5 kg./cm^2 (50-90°C/5-100
m Hg), (d) spreading the compsn. into a thin layer, (e)
asting this layer at 100-140°C under normal or reduced
essure and with passage of a current of inert gas through
e appts., (f) cooling to $\not>$80°C, (g) mixing and kneading
e cocoa compsn. with the other ingredients of the choco-
te compsn., and (h) homogenising the compsn. by applic-
ion of a high shearing force and degassing by passage of
n inert gas.

Very prolonged (12-78 hrs.) mixing of the chocolate
ompsn. is avoided or minimised, and continuous prodn.
s possible. A good quality prod. is obtd. The degassing
s partic. at 10-60 (30) mm Hg and 80°C. Roasting pref.
asts for 0.5-12 (2-6) mins. The temp. is pref. 115-130°C
nd is held within ±1.5°C. Cooling is rapid, during 0.5-
min. 31.7.73 as 010557. (6pp510)

UCR- D13 85254X/46 =NL-160-484

**irect tabletting carrier mass - contg. a dry blended mixt. of
icalcium phosphate and carubin, and additional carubin**

SUCREST CORP 02.05.75-DT-519714 (16.05.75-NL-005803)

*B07 +P33 (15.06.79) *DT2519-714 A61k-09/20*

Mixt. is prepd. from 1 pt. wt. tricalcium phosphate, 0.005-
pt. wt. carob bean gum and $\geqslant$25 pts. wt. water, dried
and crushed. Further tricalcium phosphate of particle
size $>$130 µm as $\leqslant$ 2 times total dried mixt. and 5-15wt.%
gum (on total mixt.) is added. The powder is then com-
bined with the active constituent and a lubricant, and tab-
letted.

Pref. 1-7wt.% pharmacologically acceptable, acid-re-
acting component (esp. citric acid) is added based on dry
phosphate-gum mixt. Tablets obtd. have good strength
and dispersibility. 16.5.75 as 005803. (4pp913)

UNIL D13 62554Z/00 =NL-160-606

Edible fat prodn. - from triglyceride oil fatty acids

UNILEVER NV 09.08.67-GB-036657

*(D23) (15.06.79) *BE-719-138 C11c-03/12*

An edible hardened fat is prepd. by (a) selective hydrogen-
ation of a triglyceride oil in which 25-85wt.% pf the total
fatty acid residues are 20-22C unsatd. fatty acid residues,
and (b) isolation of a stearin fraction with a dilatation val-
ue of $\not<$1400 at 20°C and $<$300 at 35°C. Hydrogenation
is continued until the iodine number is 70-85 and the drop
in iodine number during hydrogenation is $\not<$15, and the
trans-index has been brought to 50-80.

The hardened oil has a lower content of high-melting
triglycerides, so that a smaller proportion has to be re-
moved during the fractionation. The initial oil pref. con-
tains 25-60% erucic acid and has a low content of $\not>$12C
fatty acids. In partic., the oil contains $<$10wt.% of satd.
fatty acid residues and has an iodine number of 90-120,
and is hydrogenated so that the increase in the content of
satd. fatty acid residues is $<$6wt.% of the total fatty acid
residues, and the iodine number of the hardened oil is 72-

The fat is esp. used in prodn. of confectionery. 2.8.68 as 010982. (10pp510)

ALGI ★ D13 48359B/26 ★RD-182-037

Setting batter contg. soluble alginate salt - by dipping in hot soln. of polyvalent metal salt

ALGINATE INDUSTRIES LTD 20.05.79-RD-182037

*A97 (10.06.79) A23l-00/**

Setting batter contg. a soluble alginate salt (I), e.g. sodium alginate, comprises immersing the coated prod. in a hot aq. soln. of a polyvalent metal salt (II), e.g. $CaCl_2$.

The high temp. gelatinises the starch component of the batter and the batter is protected during setting by an insoluble skin formed by reaction of (I) and (II). (903)

ALGI ★ D13 48360B/26 ★RD-182-038

Oil saturated crumb coating of food - by first coating with batter contg. soluble alginate then spraying with aq. soln. of polyvalent metal salt

ALGINATE INDUSTRIES LTD 20.05.79-RD-182038

*A97 (10.06.79) A23l-00/**

Coating food products with oil satd. crumbs comprises first applying batter contg. a soluble alginate salt (I), e.g sodium alginate. Crumbs are then applied and the prod. is then sprayed or curtain coated with an aq. soln. of a polyvalent metal salt (II), e.g. $CaCl_2$.

An insoluble alginate skin forms by reaction of (I) and (II) which holds the crumbs in place. The prod. may be sprayed or dipped into cold oil without crumb loss or oil contamination. (903)

ALFA D13 47183V/26 =SU-622-423

Catalase determination in biological fluids, pref milk - by use of a substance which forms hydrogen peroxide in the presence of the fluid, esp for diagnosis of mastitis

ALFA-LAVAL AB 19.07.73-SW-010077 (16.02.73-SW-002201)

*B04 C03 R15 +R16 (16.08.78) *BE-810-903 G01n-33/02 +C12d-13/10*

Catalase in milk or other liq. (pref. biological) is qualitatively or quantitatively determined by addn. of a reagent contg. a substance or synergistic mixt. of substances which form H_2O_2 in the presence of a substance contd. in the liq. being analysed, and another reagent which gives a coloured reaction on oxidn. with H_2O_2, the catalase content being determined by the depth of colour obtd.

The reagent which forms H_2O_2 may be an enzyme or synergistic mixt. of enzymes, e.g. galactose-oxidase, which forms H_2O_2 in the presence of a sugar in the fluid; a substance, e.g. xanthine, which forms H_2O_2 in the presence of an enzyme in the fluid, e.g. xanthine-oxidase; or an org. or mineral peroxide or a substance which will form a peroxide. The reagent giving a coloured reaction is pref. the lenco-deriv. of a dye, e.g. o-tolidine.
Rosen, E.A., K-G., Rosen, H.M. Bul. 32/30.8.78.
15.2.74. as 999885 (3pp)

DAIR= ★ D13 48721B/26 ★SU-622-461

Additive for dairy products esp. for cream cheese - prepd. by concentrating mixt. of whey and skimmed milk and introducing fine nucleating crystals of lactose for improved consistency

DAIRY IND RES INST 10.12.76-SU-428738

(17.07.78) A23c-21

Additive for dairy products, esp. for cream cheese is prepd. by pasteurising whey, concentrating it to a solids content of 60-65%, and cooling to 25-30°C. This method is improved by adding skimmed milk to the whey before concentrating the latter and, after the concentration, heating the mixt. to 80-85°C and then cooling by stirring whilst introducing nucleating lactose crystals at 55-60°C. The skimmed milk is added in an amt. of 15-20% and the nucleating lactose crystals 0.05-0.1% w.r.t. the weight of the whey. By this method, fine crystals of lactose are formed (10-15µ) and cheese having dense consistency is obtd.
Shchedushnov, E.V. Bul. 33/5.9.78. 10.12.76. as
428738 (3pp70)

RANC= ★ D13 48722B/26 ★SU -622-462
Mineral feed additive for ruminants - contg. stable, readily assimilable sodium ammonium hydrogen phosphate
RANCHING RES INST 26.11.76-SU-424697
C03 E34 (17.07.78) A23k-01/17

$NaNH_4HPO_4$ is used as a mineral additive for ruminants' feed. It can be easily produced from phosphoric acid obtained by processing phosphate minerals, such as apatite or phosphorite. This cpd. is stable (in contrast to diammonium hydrogen phosphate previously used for this purpose and which evolves ammonia).

This white powder can be readily assimilated by ruminants Apart from the main components P, N and Na, it contains S, Mg, Fe, F, Al, etc. The powder or granules do not cake. The cost is relatively low.
Laskorin, B.N., Venediktov, A.M., Gopynko, Z.Sh. et al. Bul. 33/5.9.78. 26.11.76. as 424697 (2pp70)

CHAK/ ★ D13 48843B/26 ★US 4157-620
Bleached dried fruit prodn. in the field - using supporting frame and overlying plastics esp. vinyl film which filters out visible light rays
CHAKERIAN J P 10.04.78-US-895253
A97 Q76 (12.06.79) F26b-07

Dried and bleached fruit is produced by supporting fruit in a porous mass and passing SO_2 through the mass. A film of flexible, black plastics material which filters out visible light rays is placed over the mass and the latter is dried by exposure to solar radiation filtered by passage through the film. The film is minutely perforate to pass water vapour but the perforations are small enough to exclude rain water.

Used for prodn. of bleached raisins in the field. Relatively large yields are produced because losses due to insec-ts, rodents and other organisms are mininised. The operation can be effected totally in the field and grapes or other fruit do not have to be stored between method steps. The fruit dry more evenly and rapidly when covered by the black film than when exposed fully to solar radiation. The film permits the water vapour to escape and captures heat to facilitate drying of the grapes or other fruit. 10.4.78 as 895253 (5pp1044).

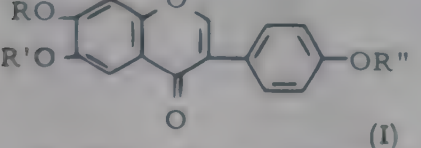
WINC- D13 63491X/34 =US 4157-680
Drainage plates for cheese moulds - narrow slots formed by pressed out strips standing proud of surface not susceptible to clogging
WINCANTON ENGG LTD 04.04.75-GB-014001
*P13 (12.06.79) *BE-840-191 A01j-25/11 +A01j-11/06*

A perforated drainage plate for use as lining in a cheese mould has punched portions which form parallel strips dis-placed from the plane of the plate. The ends of the strips are integral with the plate and the centre portions form dra-inage slots. The major portions of the drainage plates cooperate with an external casing to form passages for drainage of whey pressed out of a block of cheese curd. The ends of the strips of each plate are inclined relative to the major portion of the plate at an angle of not more than 30°. The slots have a width which does not exceed 0.6mm. The strips each define a recessed surface having a radius of curvature which is not less than 1.0mm.

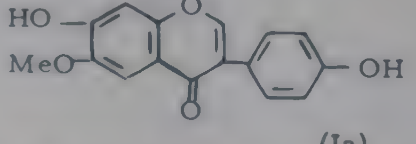
There is less change of fracture of the curd pillar and the curd does not become jammed in the recesses so that the slot size can be reduced to a min. 2.4.76 as 672954 (5pp1044).

ZLLT- ★ D13 48926B/26 ★US 4157-984
Antioxidant compsns. useful as stabilisers for foods and cosmetics - contain mixt. of iso-flavone(s) and opt. and ergostadientriol
Z-L LTD 08.06.77-US-804594
B01 E13 (D16 D21 D23 E15) (12.06.79) C09k-15/06

Antioxidant compsn. comprises ≥2 isoflavones of formula (I).

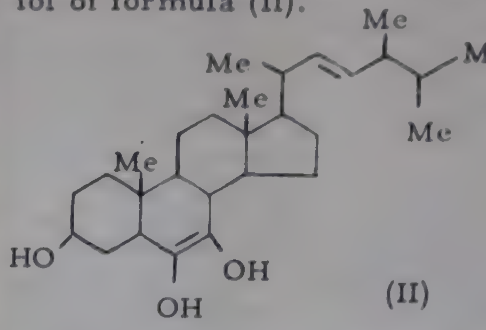


(I)



(Ia)

In (I) R, R' and R" are H or Me; or R and R' are replac-ed by CH_2 to form $-O-CH_2-O$; with the proviso that one of the cpds. is of formula (Ia). Ratio pf one cpd. to another is 1:5 to 5:1, but pref. cpds. are present in equimolar amts. Compsn. may further comprise an ergosta
iol of formula (II).



(II)

Cpds. (I) an
possess antioxi
properties eith
alone or in com
These cpds. ar
-ior to known c
ional chemical
dants; they are
ss and odourles
are of Vitamin
Compsns. containing (I) and (II) are useful as stabil
for food prods including edible fats and oils and for
metics. Compsns. containing (II) may be used in th
vention and treatment of various diseases including
-sclerosis. 8.6.77 as 804594 (6pp954).

CHIM- D13 12548A/07 =US 4
Sodium saccharin purification - esp. removal of ortho-t
sulphonamide by countercurrent extraction with methylene c
CHIMICASA GMBH 02.08.76-LU-075518
*B02 E12 (12.06.79) *DT2730-861 C07d-275/06*

Saccharin sodium soluted in aq. soln. obtd. by the
cess of Fahlberg-Rensen, and which is contaminatec
with 5000 ppm of o-toluenesulphonamide, and which
tains 30-60wt.% by crystal wt. of saccharin sodium
fined.

Contaminated soln. is adjusted to pH 4.5-6.0 and
22°C. The o-toluenesulphonamide is extracted at 15
with methylene chloride passed vertically downwards
countercurrently to the soln., and soln. emulsified b
termittently passing them through flow baffle plates.
methylene chloride residues are evaporated from the
tracted aq. soln. The saccharin sodium is crystalli
from evaporated soln. The countercurrent extractio
continued until saccharin sodium crystallisable from
soln. has content < 1ppm o-toluene-sulphonamide.

Saccharin sodium prepd. has high purity level. P
cess can be performed economically and on an indust
scale. 27.7.77 as 819255 (3pp931).

TVTI- ★ D13 48953B/26 ★US 41
Meltable hard candy article - forms non-sticky glaze coati
confection without burning or scorching and has good shelf lif
TV TIME INC 12.01.78-US-868815
(12.06.79) A23g-03

A hard candy article comprises a precooked hard can
bar having a moisture content of 6 wt.% and a main b
section having planar upper and lower surfaces. A n
of spaced projections extend downwardly below the pl
of the lower surface and a skirt portion extends down
ly around the periphery of the bar.

The skirt and main body form an enclosure with th
bottom surface of a cooking vessel when placed in a v
for melting to form on cooling a brittle non-sticky gla
coating on a confection or food item. The enclosure
tains fluid and melted candy syrup beneath the main b
section when the bar is heated.

The bar can be rapidly melted down without burnin
scorching to form a crisp, non-sticky glaze coating on
article coated with the glaze. The bar has good packa
characteristics and shelf life. The bar can be formed
any conventional candy moulding appts. and the latera
wall surfaces of the bar are tapered slightly to facilita
rapid release of the bar from the mould. 12.1.78 as
868815 (5pp1044).

GERB ★ D13 48955B/26 ★US 415
Stabilisation of rice polish - by dehydration to controlled moi
content
GERBER PRODUCTS CO 21.07.78-US-926776
(12.06.79) A23k-03/02

Rue polish is stabilised by reducing the moisture conte
to 5.8-8.0g per 100g fat-free solids, which correspon
to a monomolecular layer of water on each particle.

The method can be applied economically to small an
of the polish, and used at the place where it is produce
At the moisture level stated, free fatty acid formation

is stored at reduced temps. e.g. 40°F. 21.7.78 as 6 (3pp955).

D13 23624A/13 =US 4158-067

t coffee extract prepn. - in two counterflow low temp. tors sepd. by brief hydrolysing steam heating (BE 16.3.78)

INT RES CO 18.09.76-GB-038797

*(12.06.79) *DT2741-524 A23f-01/08*

cts are prepd. from ground coffee by subjecting d roasted coffee sequentially to steps of exhaustive ction of the solubles at 60-120°C at which temp. no lysis of coffee occurs; heating coffee grounds for mins at 140-200°C and exhaustive countercurrent lea- of heated ground with water at 60-120°C.

irst extraction step comprises countercurrent leach- ith an aq. solvent, resulting in the removal of non- tile soluble solids and draining the grounds to reduce ree water presence between coffee particles. The luble coffee solids of the first step are transformed e second step to substances extractable in the third . Heating in the second step is effected in the absence ubstances extracted in the third step.

xtracts prepd. can be used for the mfr. of instant ee powders. 1.9.77 as 829946 (4pp931).

FARH D13 02377A/02 =US 4158-068

Sweetener mixt. contg. aceto-sulpham and a second sweetener - e.g. an aspartyl peptide ester, with a taste closer to that of sucrose (BE 27.12.77)

HOECHST AG 24.06.76-DT-628294

*B04 (12.06.79) *DT2628-294 A23l-01/23*

Sweetener mixture is prepd. having an improved saccharose-like taste, and contains the potassium salt of 3,4-dihydro 6-methyl 1,2,3-oxathiazine-4-one 2,2-dioxide, and a further sweetener which is aspartyl phenylalanine methyl ester, the sodium salt of cyclohexyl sulphamic acid, the sodium salt of saccharin or neohesperidin-dihydrochalcone.

Wt. ratio of first component to second where aspartyl phenyl-alanine methyl ester is used is 1:10-10:1; where sodium salt of cyclohexyl sulphamic acid is used is 3:1-1:12; where sodium salt of saccharin is used is 1:2-10:1; and where neohesperidin-dihydrochalcone is used is 5:1-20:1.

Esp. used for sweetening food, beverages, animal feed, pharmaceuticals and cosmetics. 22.6.77 as 808987 (2pp931)

See Also

D11 DS 1767943 D16 FR 2404045 D16 J5 4062391
D16 J7 9013496 D16 J7 9013515 D16 SU 621724
D23 DS 1812204 D25 J5 4060303 D25 J5 4063107

D14: FOODSTUFF MACHINERY

CM ★ D14 47394B/26 ★DT 2848-446

it juice extraction plant - with automatic press reversal and lenishing through buffer tank level control

BUCHERGUYER MASCH 15.12.77-CH-015440

P71 (D16) (21.06.79) A23n-01 B30b-09/04

plant for the extraction of juice from products such as apes or fruit includes a buffer tank which is connected the juice outlet of the press cylinder. A pump removes e juice from the buffer tank to a storage tank until a set inimum level is reached. The pump is then shut off and e press piston is returned for the start of the next cycle hich is combined with a topping-up of the press cylinder ntil the mash has reached a set pressure.

This reduces the overall duration of the juice extraction peration without any reduction in the juice yield. 8.11.78 s 848446 (17pp39)

AYE- ★ D14 47589B/26 ★GB 2010-109

odder mixing trailer with lateral discharge openings - fed by eparately controlled inclined conveyors and horizontal mixing crews

BAYERISCHE PFLUGFAB 16.12.77-DT-U38430

(27.06.79) B01f-15/02

A trailer for dispensing fodder along a path in a selected variable amnner comprises a steep sided storage container, including 2- 3 horizontal mixing screws, the lowermost screw used to convey the fodder towards a lateral discharage opening. The cross-section of the discharage opeing can be kept at a max area by use of aspring biassed slide. The slide can be closed by a hydraulically actuated cylinder.

The fodder is delivered through the opeing by a inclined conveyor driven if desired in responce to the drive of the mixing screws. Its path extends from beneath the lowermost mixing screw, extends through the discharge opeing and terminates in a discharge trough. There is one discharge opening on each side of the trailer, each of which has a separately controlled slide and discharge conveyor.

The trailer can mix and deposit apportioned amts. of fodder on both sides during one passage or in one direction of travel. 14.12.78 as 048545(6pp295)

FIND- D14 15940A/09 =US 4157-681

Machine for trimming vegetables etc. partic. cauliflower - for high output and enhanced yield of first quality undamaged vegetables

PRODS FINDUS SA 29.11.76-CH-014979

*+P28 (12.06.79) *BE-859-808 +A47j-23*

Vegetables and fruits can be pared in appts. which includes a recessed tray from the produce, the tray being intermittently rotatable about a fixed axis to present the produce to a paring station; a curved paring blade; a device for effecting relative rotation of the blade and the presented produce to separate a hemispherical surface from the remainder; a rod to advance the blade towards the produce in an arc relative to the axis; and a device to control the degree of advance of the blade. The control device includes a second rod and a differential cam.

The appts. can be used to pare cauliflower heads. 25.11.77 as 854634 (11pp1376).

See Also

D16 SU 621722 D23 BE 874363

D15: WATER TREATMENT

DEGS ★ D15 47180B/26 ★BE -872-978

Deodorising industrial and urban waste water sludges - by treating with cpds. releasing active oxygen, esp. chlorite(s)

DEUTSCHE GOLD & SILBER 23.12.77-DT-757561

(21.06.79) C02c

preserving the biomass, comprises

active oxygen.

The process may be used for all urban clarification sludges and industrial sludges. Compared with previous processes, it avoids killing all the bacteria, can be operated in any usual appts., requires a low temp. and avoids the disadvantage of formation of chlorinated products such chlorophenyls and nitrogen trichloride.

Specified oxygen releasing cpds. are hydrogen peroxide an alkaline perborate or persulphate, a percarboxylic or percarbamide, or an alkali or alkaline earth metal chorite, esp. sodium chlorite. The treatment is pref. at 5-25°C and pH 5-7. 21.12.78 as 872978 (28pp597)

SCHR/ ★ D15 47189B/26 ★BE -872-996

Compact plant for activated sludge treatment of waste water - automatically increases aeration to respond to transient peak loads

SCHREIBER A 23.12.77-DT-757860

(22.06.79) C02c

The treament takes place successively in aeration, reaction and settling tanks with recycling of sludge from the settling tank. Part of the recycled, conc. sludge from the settling tank, part of the incoming waste water and a mixt. of waste water and sludge from the aeration tank are brought together in the reaction tank. The oxygen content of this mixt. in the reaction tank is measured and, if necessary, brought up to a required min. level and thoroughly agitated.

From the reaction tank, the mixt. is advanced to the aeration tank for intensive purificn. and then to settling tank. After concn. most settled sludge is returned to the reaction tank. A fraction of the sludge together with part of the incoming waste water is fed into the aeration tank. A vertical cylindrical reaction tank is pref. surrounded by a coaxial, annular, aeration tank.

Aeration of the reaction tank pref. takes place automatically as soon as the oxygen content of the liq. drops 0-0.2 mg/l. 22.12.78 as 872996 (17pp448)

UNIC ★ D15 47205B/26 ★BE -873-048

Removing heavy metals from waste activated sludge - by oxygen oxidn. followed by electrolysis, giving sludge suitable for use in agriculture

UNION CARBIDE CORP 21.11.78-US-961253 (23.12.77-US-863924)

C04 M28 (22.06.79) C02c C05f C25c

The process comprises aerating the sludge with a gas contg. oxygen as the only oxygen source to oxidise the heavy metal sulphides biochemically to soluble sulphates. The sludge is then used as an electrolytic bath contg. an anode and a cathode between which a potential difference is maintained. The bath is maintained under acid and aerobic conditions, whilst the heavy metals are deposited at the cathode.

The process does not require addn. of large amts. of chemicals, heating at a high temp. or water sepn. The electrolytic treatment using Al anodes also consists sludge sepn. The heavy metals must be removed from the sludge to make it fit for agricultural use. 22.12.78 as 873048 (37pp597)

UNTC D15 39765S/23 =DS 2118-557

Separating and isolating ion exchange - resins

ECODYNE CORP 20.04.70-US-030137

*J01 (21.06.79) *US3582-504 B01j-01/09*

Exhausted anion and cation exchange resins are sepd. by passing a liq. upwards through the resin bed and sepg. the upper layer of anion exchange resin from the lower layer of cation exchange resin. The upper layer of anion exchange resin is treated with a liq. of density between that of the anion and that of the cation exchange resins so that the anion exchange particles float on top and the cation exchange particles present as an impurity sink to the bottom and can be removed.

The liq. may be a sodium sulphate soln or a NaOH soln., in which case the anion exchanger is regenerated as well as purified. 16.4.71 as 118557(7pp68)

DAMB- D15 76056Y/43 =DS 2615-033

Biocell reactor for treating sewage sludge - with flap lid decks swivelling in profile rails for wall section assembly

DAMBACH-INDUSTRIEAN 07.04.76-DT-615033

*(21.06.79) *DT2615-033 C05f-09/02*

A compost bin consists of a support structure with vertical beams which contain a large number of decks. Each deck is assembled from a rectangular frame in which parallel hinged flaps are supported. The frame itself consists of extruded metal (Al) sections with grooved recesses along the top and the bottom. The vertical wall panels a
ed into these recesses without any other fastening

Such a compost bin consists of few idential com
and can be easily assembled and extended on site.
as 615033(11pp39)

COAF D15 94318X/51 =DS

Purificn. of oil polluted industrial effluent esp. coolants -
filtration and coalescence for high capacity treatment

CREUSOT-LOIRE 05.06.75-FR-017556

*(21.06.79) *BE-842-607 C02c-05*

Waste water contg. colloidal emulsions, e.g. oily
from mechanical, metallurgical or iron works, is
by a continuous process. Waste water from a stora
tank is subjected to ultrafiltration and the pure wat
is sepd. off.

The waste water remaining with a higher conten
impurities is subjected to a coalescent treatment.
alesced phase is removed and the remaining waste
recycled to the storage tank. 24.5.76 as 623210(5p

DOWA D15 06548Y/04 #DS

Low pH value waste water ferrous ion oxidn. - using iron
bacteria on antiacid porous granules with air agitation,
recycling

DOWA MINING KK 30.04.75-JA-052308 (30.08.76-DT-63

*(21.06.79) *J51142-860 C02c-05/10*

Waste water from mines, foundries or similar wor
oxidised with iron bacteria. The waste water contg.
is aerated and rotated in a container and then iron
deposited on an acid resistant, porous, particulate
esp. diatomaceous earth, is added.

The process is carried out in the acid range at a
such that no basic salts are pptd. This enables at le
part of the carrier to be reused and reduces the cos
the process. 30.8.76 as 639045(10pp68)

AZAR/ ★ D15 47279B/26 ★DT 2

Water desalination cell - with bar electrodes and tubu
exchange membranes in hexagonal pattern

AZAROV N N 14.12.77-DT-755729

J03 (21.06.79) C02b-01/74

A desalination cell, filled with ion exchanger resin,
ains bar electrodes which are arranged at the apices
hexagons, with alternating polarities. Each electro
surrounded by a tubular membrane which is support
a perforated tube. Drainage pipes in the centre of e
hexagon discharge the desalinated water.

This cell combines a high throughput with small o
dimensions. It is easy to operate and introduces no
for the personnel. 14.12.77 as 755729 (13pp39)

STAU/ ★ D15 47329B/26 ★DT 27

Water disinfection by UV irradiation - intensified by in
ozonised air produced by same source

STAUSBERG W 17.12.77-DT-756315

(21.06.79) C02b-03/0?

A system for the sterilisation of liquids, such as swi
pool water, comprises passing the fluid close to a so
of UV radiation injects, in addn., ozonised air into the
The air to be injected is ozonised by passing it also c
to the same source of UV radiation.

This combined treatment achieves an optimum util
tion of the radiation energy. 17.12.77 as 756315(21pp

FARB ★ D15 47343B/26 ★DT 275

Water-soluble amido-poly:amine cpds. used in paper mfr.
prepd. from basic polyamide and poly:alkylene poly:amine

BAYER AG 17.12.77-DT-756431

A97 F09 (A26) (21.06.79) C07c-102 C08g-69/48 C08g-
C09k-03 D21h-03/02

Water-soluble amidopolyamines (I) are produced by r
ing water-soluble or dispersible basic polyamide(s) (I
polyalkylene-polyamine(s) (III) of the formula H_2N-[C
CHR-$(CH_2)_y$-NH-$]_x$-H (in which R is H or Me, y = 0 or
x = 4-2500), opt. mixed with amines of the same formu
(in which x = 1-3) and opt. cpds. (IV), which are polyfu
tional towards amino gps.

(II) are prepd. by condensn. of aliphatic polyamine
having min. 2 prim. amino gps. and min. 1 sec. or tert

phatic or heterocyclic polyamines, having min. 2 prim.
ec. or one prim. and one sec. amino gp., with satd.
atic 4-10C dicarboxylic acids or their functional
vs. and opt. ω -aminocarboxylic acids or their lactams
ng min. 3C.
) are specified as retention aids for fibres, fillers and
ents and draining accelerators in paper mfr. and for
cessing waste liquors from paper machines by filtration
mentation and flotation. 17.12.77 as 756431 (39pp016)

★ D15 47346B/26 ★DT 2756-469

**r-soluble amido-poly:amine cpds. for use in paper mfr. - are
d. from amide-poly:amine and opt. polyfunctional cpd.**

AYER AG 17.12.77-DT-756469
*97 F09 (A26) (21.06.79) C08g-69/48 C08g-73/02 C09k-03
21h-03/02*

er-soluble polyamines (I), which are not selfcrosslink
, are prepd. from water-soluble or dispersible amido-
yamine(s) (II) and opt. cpds. (III) which are polyfunctional
ards amino gps. (II) are prepd. by condensn. of 1 mole
td. 4-12C) dicarboxylic acid or its functional deriv.,
0, pref. 0.2-3 -mole aminocarboxylic acid or lactam
h min. 3C and 1.4-30, pref. 1.4-3.0, esp. 1.75-2.5
le, polyalkylenepolyamine of the formula $H_2N\,[CH_2\text{-}CHR$
$H_2)_y\text{-}NH\text{-}]_x\text{-}H$ (in which R is H or Me. y = 0 or 1. x =
15) or mixts. of these with amines of the same formula
which x = 1-3).
(I) are specified as retention aids for fibres, fillers and
gments and draining accelerators in paper mfr. and for
ocessing waste liquors from paper machines by filtration,
dimentation and flotation. 17.12.77 as 756469 (38pp016)

EV- ★ D15 47376B/26 ★DT 2756-893

**wage aeration device - with submerged distributor and radial
es for air fluid mixing chambers**

CLEVEPAK CORP 20.12.77-DT-756893
(21.06.79) C02c-01/12

aeration plant for sewage consists of a floating submer
ed distributor from which many radial pipes lead to mix
ng chambers. A pump supplies fluid and another pump
livers air or oxgyen to the mixing chambers to produce
mixt. of gas bubbles and fluid.
This reduces the energy consumption to a min. because
as and fluid flow in the same direction. The eddies are
onfined to the mixing chambers so that the efficiency does
ot suffer. The device can be easily installed in existing
asins. 20.12.77 as 756893 (24pp39)

LEV- ★ D15 47377B/26 ★DT 2756-894

**ewage aeration device backflushing - by air flow reversal when
luid pump is shut/off**

CLEVEPAK CORP 20.12.77-DT-756894
(21.06.79) B01f-03/04 C02c-01/12

A submerged aeration device with a distributor and radial
pipes leading to air/fluid mixing chambers is fitted with
pumps for the circulation of the fluid and the supply of air
(or oxygen). To remove foreign bodies from the mixing
chambers and the fluid pump suction strainer, the fluid
pump is stopped and the air supply is maintained. The air
flow reversal effects the backflushing.

The difference in elevation of the air nozzles and the
suction strainer effects a very thorough cleaning which can
be intensified by a pulsating operation of the air supply.
20.12.77 as 756894 (25pp39)

ISHI- ★ D15 47396B/26 ★DT 2850-771

Sewage sludge dewatering filter press - with endless belts pressed on drum by graduated V/belt sets

ISHIGAKI KIKO CO 20.12.77-JA-153719
+P71 (21.06.79) B01d-33/04 B30b-09/24 C02c-03

Sewage sludge is dewatered by two endless belts, made of water-permeable filter material, each with a horizontal section, followed by a section in which the sludge is pressed between them both as they are wrapped around a drum. Three sets of endless V-belts contact the drum periphery. The number of V-belts acting on the drum length increases in stages from the charge end to the discharge end.

The gradually changing pressure on the drum periphery results in a more uniform degree of dewatering and in

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ESSO ★ D15 47439B/26 ★DT 2854-249

Regeneration of anion and cation exchanger resins - in mixed bed demineraliser for water purification (NL 19.6.79)

EXXON RES & ENG CO 15.12.77-US-860690
J01 (21.06.79) B01j-01/09

Mixed-bed demineralisers for water purification are regenerated after use by (a) back-washing with water to separate the bed into an upper layer of anion exchange resin and a lower layer of cation exchange resin, (b) passing 30-80 vol.% of the anion regenerating soln. through the upper layer, to partially regenerate it and remove SiO_2, (c) passing the remainder of the anion regenerating soln. through both layers, to complete regeneration and remove at least part of the SiO_2 from the cation exchanger resin, and (d) passing a cation regenerating soln. through the cation exchanger resin.

Concn. of SiO_2 in the treated water is reduced to ultra-low levels, i.e. $\leqslant$ 0.01 mg/l by removing deposited SiO_2 from the cationic exchanger resin as well as the anionic exchanger resin. 15.12.78 as 854249 (29pp195)

ROLL- ★ D15 47462B/26 ★DT 2854-883

Removal of froth from liq. leaving finishing machine, - in a baffled tank with a series of cascaded weirs, with water sprays of adjustable height

ROLLWASCH ITALIANA 19.12.77-IT-042913
J01 (21.06.79) B01d-19/02

Foam on the surface of effluent water is removed in baffled tank. This is partition by a series of baffles each of which has an opening in it and which constitutes a weir. Liquor entering at one end then cascades through the tank.

Above the liq. level and over each baffled section are mounted spray nozzles. These are directed down onto the liquor surface and sprays water onto it. In this way any froth present is killed by the water spray.

For use with the water stream leaving metal finishing plants. This contains a large amt. of finely divided solids and has a strong tendency to froth. The system described is simple, economic, effective method for continuous, rapid suppression of froth. 19.12.78 as 854883 (12pp1053)

VEOS ★ D15 47467B/26 ★DT 2855-160

Pressurised screen belt - with grid shaped back-up for top and rollers for bottom belt in wedge zone (OW 15.4.79)

VER OSTERR EISEN & STAHL 20.12.77-OE-009144
+P71 (21.06.79) B01d-33 B30b-09/24 C02c-03

A pressurised endless belt screen for sewage sludge dewaters the charged material in a wedge zone between the two endless belts. The top strand in the wedge zone is backed up by a grid of webs and across the direction of the belt motion. The bottom strand of the wedge zone is supported by rollers across the direction of the belt motion.

This produces fluid wedges only on the bottom strand so that the water can drain off freely and is not pressed back into the sludge. The squeezing action by the grid pattern of the top belt support has a beneficial action on the dewatering. 20.12.78 as 855160 (10pp39)

FARB D15 47343B/26 =EP ---2-474

Water-soluble amido-poly:amine cpds. used in paper mfr. - are prepd. from basic polyamide and poly:alkylene poly:amine

BAYER AG 17.12.77-DT-756431
*A97 F09 (A26) (27.06.79) *DT2756-431 C08g-69/48 D21h-03/58
+C08g-73/02*

D/S: E(BE, CH, DT, FR, GB IT, NL, SW).

Water-soluble amidopolyamines (I) are produced by reacting (i) water-soluble or dispersible basic polyamide(s) (II), polyalkylene-polyamine(s) (III) of the formula $H_2N\text{-}[CH_2CHR\text{-}(CH_2)_y\text{-}NH\text{-}]_x\text{-}H$ (in which R is H or Me, y = 0 or 1, x = 4-2500), opt. mixed with (ii) amines of the same formula (in which x = 1-3) and opt. (iii) cpds. (IV), which are polyfunctional towards amino gps. (II) are preptd. by condensn. of aliphatic polyamines, having $\geqslant$2 prim. amino gps. and $\geqslant$1 sec. or tert. amino gp., or their mixts. with aliphatic, cycloaliphatic, araliphatic or heterocyclic polyamines, having $\geqslant$2 prim. or sec. or one prim. and one sec. amino gp., with satd. aliphatic 4-10 C dicarboxylic acids or their functional derivs. and opt. ω -aminocarboxylic acids or their lactams having $\geqslant$3 C.

(I) are specified as retention aids for fibres, fillers and pigments and draining accelerators in paper mfr. and for processing waste liquors from paper machines by filtration, sedimentation and flotation.
4.12.78 as 101531 (40pp016)
(G)ISR: DS2502874.

FARB D15 47346B/26 =EP ---2-475
Water-soluble amido-poly:amine cpds. for use in paper mfr. - are prepd. from amide-poly:amine and opt. polyfunctional cpd.
BAYER AG 17.12.77-DT-756469
*A97 F09 (A26) (27.06.79) *DT2756-469 D21h-03/58 +C08g-69/48*
D/S: E(BE, CH, DT, FR, GB, IT, NL, SW).

Water-soluble polyamines (I), which are not self-cross-linking, are prepd. from water-soluble or dispersible amidopolyamine(s) (II) and opt. cpds. (III) which are polyfunctional towards amino gps.

(II) are prepd. by condensn. of 1 mole (satd. 4-12 C) dicarboxylic acid or its functional deriv., 0-30, pref. 0.2-3, mole aminocarboxylic acid or lactam with ≥3 C and 1.4-30, pref. 1.4-3.0, esp. 1.75-2.5 mole, polyalkylenepoly-amine (IV) of the formula $H_2N[CH_2CHR-(CH_2)_y-NH-]_x-H$ (in which R is H or Me. $y = 0$ or 1. $x = 4-15$) or mixts. of these with amines of the same formula (in which $x = 1-3$).

(I) are specified as retention aids for fibres, fillers and pigments and draining accelerators in paper mfr. and for processing waste liquors from paper machines by filtration, sedimentation and flotation.
4.12.78 as 101532 (39pp016)
(G)ISR: FR2013072; JA5949275; DT1906561; FR2249104; FR1510556; 1 Journal Reference.

BEHA/ D15 76588A/43 =EP ---2-490
Sewage aerator impeller - with blades of greatly differing flow resistance in different directions of rotation
BEHAM H 08.12.77-DT-754621
*P11 Q42 +R53 (27.06.79) *DS2754-621 A01c-03/02 B01f-03/04 C02c-01/12 +B01f-15 H02p-01/32*
D/S: E(BE, CH, FR, GB, LU, NL, SW).

Appts. for aeration of liquids containing organic constituents has a motor with a depending agitator impeller (8) whose vanes provide different flow resistance in opposite rotary directions. Motor direction is reversed such that at higher speeds requiring greater agitation of the liquid the motor is driven in the direction corresp. to the greater flow resistance, whereby greater power input is required and at lower speeds the motor is driven in the opposite direction with consequent lower power input.

The appts. is used for aerating liquid manure and sewage. Aeration at fast rates in short periods with energy saving input is possible.
6.12.78 as 101573 (12pp536).
(G)ISR: DT2511717; DT1538299; DT1932998; DT2053131

DUKU ★ D15 47476B/26 ★EP ---2-497
Processing used ammoniacal copper etching solns. - by chlorination in presence of non-ferrous metal waste for metal recovery
DUISBURGER KUPFERHUTTE 21.12.77-DT-756924
M25 (M14) (27.06.79) C02c-05/04 C22b-03 C22b-07
D/S: E(BE, DT, FR, GB, NL).

Used copper etching solns., contg. NH_3 and/or NH_4^+, are processed by chlorination in presence of excess recycling material contg. non-ferrous metals in (hydr)oxide form. The remaining undissolved non-ferrous metal (hydr)oxides are brought into soln. using waste mineral acids and the soln. is treated to recover its metal content.

No expensive Na_2S and H_2S precipitants are required. The amt. of acid required for leaching the recycling material is reduced.
7.12.78 as 101590 (9pp941).
(G)ISR: GB1004650; US3733266; DT2529647; DT2234971; DT2112271.

GENE ★ D15 47489B/26 ★EP
Random fibrous matrix coalescer for sepg. fluids of differing - esp. oil-water mixtures, using interspersed long fib oleophilic, non-corrosive material
GENERAL ELECTRIC CO 20.12.77-US-862323
H05 J01 (27.06.79) B01d-17/04 C02c-01/38
D/S: E(BE, DT, FR, GB, IT, NL, SW).

Appts. for separating components of different densit in a fluid mixture or emulsion comprises a containe including a matrix of randomly oriented oleophilic fi through which the mixture flows. The fibres are configured to provide a predetermined porosity so that t less dense components of the mixture coalesce on th fibres and flow under shear along the fibres to the to the matrix. Separate discharge outlets are provided the fluid components exiting the matrix according to density.

The fibres may be made from plastics or metal, e stainless steel wool.

Removal of highly emulsified oil from an oil/wate mixture.

The appts. can operate effectively for long periods without coalescing element cleansing. The coalescin element or matrix is cleanable and reusable. The ap may be used in conjunction with other oil/water sepn. devices. The separated water contains < 15 ppm oil line with US environmental regulations).
14.12.78 as 101671 (13pp1044).
(E)ISR: DT2629897; GB1004348; US3738492; CH-57 US3469702; US3617548; GB1175290; FR1378377; US3806437; FR2375890.

INTE- ★ D15 47500B/26 ★EP ---
Polymer coated calcium peroxide particles - used for oxygenati water, e.g. reservoirs, for long periods
INTEROX 18.11.77-LU-078545
A97 E33 (27.06.79) C01b-15 C02b-01/34 C02c-05/04
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Solid particles contg. calcium peroxide are coated wit water-insoluble cpd. (I) with m.pt. ≥ 50°C. (I) pref. ha water solubility <1 wt.% and pref. is an organic polym esp. contg. units derived from mono- or polyunsatd. ol fins opt. substd. by halogen (e.g. Cl, F), aryl or (cyclo alkyl.

The particles are used for oxygenation treatment of water which cannot be oxygenated by agitation, e.g. (i) reduce fermentation, ppte. metal ions (Fe, Mn) and equ ibrate Ca and CO_3 in drinking water prodn.; (ii) to oxygenate the hypolimnion of reservoirs to prevent algal growth, stagnation and putrefaction; (iii) to destroy ex Cl_2 and/or ClO^- in chlorinated water; and (iv) in efflue treatment to prevent putrefaction in decanted sludges.

The coated particles ensure slow release of oxygen over a long period, even at temps. above ambient.
15.11.78 as 200306 (22pp941).
(F) ISR: FR2215385; DS-334868; DS1275801; FR15604 OE--33357; DSL000459.

THAM- ★ D15 47524B/26 ★EP ---2-
Ammonia removal from sludge liquor - by raising pH to 9 by carb di:oxide removal, then purifying, then removing ammonia stripping with inert gas, pref. air
THAMES WATER AUTHOR 12.12.77-GB-051658
E35 (27.06.79) C01c-01/02 C02c-05/02
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Ammonia is removed from sludge liquor by raising the pH of the liquor, purifying it, and then contacting it with a gas which does not react with NH_3, so that the NH_3 is removed from the liquor into the gas. The improvemen comprises (i) raising the pH of the liquor to a value of a least 9 (pref. 9-12.5) by stripping CO_2 from it, and (ii) ensuring that the temp. of the purified liquor is at 5-50° prior to contacting it with the gas.

The process is used for removing NH_3 from sewages, sewage and industrial effluents, sludges and sewage sludge liquors and filtrates.

e process can achieve 95% ammonia removal and
recovery of this. Removal of $\geqslant$ 80% of the suspend-
ids, COD, BOD and phosphate from digested sludge
natant liquor has also been achieved.
.78 as 300786 (17pp914).
R: FR2260532; US4076515; US3754376; DT2530537;
24185.

★ D15 47540B/26 ★EP ---2-634
condensate corrosion inhibiting system - comprising
oxy:propylamine and hydrazine
LGON CORP 22.05.78-US-908334 (12.12.77-US-859342)
6 M14 (E36) *(27.06.79) C02b-01/10 C23f-11/14*
E(BE, CH, DT, FR, GB, LU, NL, SW).

eam condensate corrosion inhibiting compsn. consists
ethoxypropylamine and hydrazine. Pref. the compsn.
ains 1-15 wt.% of hydrazine and the concn. of the
psn. in steam condensate systems is maintained at
mg/l.
.78. as 400209 (11pp914).
ISR: US 3983048; LU--36675; FR 2359909;US 2793944;
3728281.

N ★ D15 47541B/26 ★EP ---2-636
he removal from gaseous mixts. or aq. solns. - by fixing into
n contg. nonionic ethoxy ether gps.
ROD CHIM UGIN KUHL 14.12.77-FR-037613
A91 E36 J01 *(27.06.79) B01d-15 B01d-53/34 C01b-07/14 C02b-*
01/14 C08f-08 G21f-09
: E(BE, DT, FR, GB, NL, SW)
eous or dissolved iodine is removed from a gaseous
t. or an aq. soln. contg. iodine by passing the mixt.
soln. over a resin contg. nonionic ethoxy type ether
. The resin is also claimed.
The process allows elementary iodine to be fixed on
resin without retaining the acids or anions present in
gaseous mixt. or aq. solns. The iodine can be stored
the resin and it can be eluted either in an elementary
ate or as a metal iodide. The process can be applied
the industrial prepn. of iodine or to its removal from
luents which it pollutes.
12.78 as 400212 (22pp950).
) ISR: 1 Journal Reference.

LA/ ★ D15 47552B/26 ★FR 2403-818
gh surface area filament packing for gas-liq. contact - for use in
sorption and desorption towers, gas washers, cooling towers,
cterial beds for water treatment etc.
DELALANDE C 27.09.77-FR-029060
J01 (25.05.79) B01d-03/14 B01d-53/20
he packing takes the form of a toroidal rosette in which
piral filaments are placed in a helix, relative to the
entre of the circular rosette. The facing sides of the fila-
ents have $\geqslant$ 1 projection at 90° to the surface of the
ide. Near the outer part of the rosette the filaments are
onnected to each other by a sinusoidal filament which also
as 90° projections from its sides.
The packing may be used in gas washers, absorption
nd desorption towers; in gas-liq. or liq. gas enriching
ystems; in dust traps; in chemical deodorisers; in cool-
ng towers; bacterial beds for water treatment; denitrific-
ation beds, catalysers etc.. The packing offers a high
efficiency and subsidence is practically eliminated. The
pressure loss across it is small. It is light and therefore
reducesthe encumbrance of the appts. 27.9.77 as 029060
(6pp1330).

ALST ★ D15 47560B/26 ★FR 2403-981
Partial purificn. of effluents in station - is followed by biological
treatment with its own sludge in the outlet pipe
ALSTHOM-ATLANTIQUE 21.09.77-FR-028403
(25.05.79) C02c-01/06 C02c-05/04
Partial treatment of an effluent is effected in a biological
purificn. station which produces a sludge contg. suitable
microorganisms; the treatment is completed as the
effluent progresses along the outlet channel which may be
of a considerable length.
The effluent channel has an inlet at its upstream end
downstream end. A portion of the
the purificn. station. This delivers a treated effluent
through a pipe and a biological sludge contg. microorgan-
isms, produced by the sludge itself, through a further
pipe; it is injected into the liq. flowing through the outlet
channel and is discharged in the completely treated state.
The effluent may be treated in a comparatively small
station with all the resulting economies; the micro-org-
anisms produced from the effluent itself are partic. adap-
ted for the treatment. 21.9.77 as 028403 (5pp519).

SUMO D15 14969Y/09 =GB 1547-613
Metal ion absorption using filter paper contg. ion exchange gps. -
e.g. PVC treated with ethylene diamine and sulphur dioxide
SUMITOMO CHEMICAL KK 12.08.75-JA-098286
*A88 J01 (A89 J04) (27.06.79) *DT2635-824 B01d-15/08 C02c-*
01/40 + C08f-08/30 D21h-05/12
Filler for selective collection of metal ions comprises a
water-permeable sheet formed from pulp or fibre having
chemically bonded metal ion collecting gps. These gps.
contain O, N and/or S atoms and form nonionic bonds with
the metal ions.
Pref. the sheet is 0.05-5mm thick, has water-permeab-
ility of 1-1000 seconds and contains 0.1-10 meq metal
ion collecting gps per g. The collecting gps include acet-
amido, 1-amino-2-hydroxyphenyl; iminodiacetate, ethyl-
enediamino, polythylene polyamino, thio ureido, phenyl
thioureido, thio(semi)carbazide, dithiocarbamate, dithio-
carbamic acid, (poly)thiol, 1,3-dihydroxyphenyl, 1-carb-
oxy-3,4,5-trihydroxyphenyl, and alkyldithiocarboxy.
The filters can selectively collect very small amts. of
heavy metal ions and are useful in water purificn and ana-
lysis. 12.8.76 as 033657(4pp945)

ROHM D15 01397Y/01 =GB 1547-831
Anion exchange resins with low chlorine content - prepd. by
solvolytic conversion of nonionic chlorine into chloride ion
ROHM & HAAS CO 13.06.75-US-586676
*A91 K05 (27.06.79) *NL7606-377 C08f-08*
A strong base anion exchange resin in hydroxy form and
free of chloride functional gps is prepd by (a) exchanging
chloride functional gps of a strong base anion exchange r
resin with functional gps of selectivity intermediate be-
tween chloride and hydroxy and (b) exchanging intermed-
iate selectivity gps with hydroxy gps by contacting the
resin with aq. (in)organic base.
In addn, the process comprises (i) before step (a) sub-
jecting the resin to solvolytic displacement of nonionic
chlorine to convert it to ionic chloride functionality by con-
tact with aq medium of pH $\geqslant$ 7 and/or (2) pretreating the
soln used in step (b) with ion exchange resin with high sel-
ectivity for chloride ions. Step (1) must take place if the
starting resin contains nonionic chlorine.
Absence of chloride gps makes the resin non-corrosive
and suitable for use in nuclear reactor systems. The star-
ting resin esp. has a polymer matrix derived from vinyl
benzyl chloride polymerisation. 2.6.76 as 022739(15pp945)

ASAG ★ D15 47717B/26 ★J5 4060-759
Treatment of heavy metal-contg. effluent - by adding iron cpd.,
making effluent alkaline, sepg. insol. magnetic matter and
recycling
ASAHI GLASS KK 21.10.77-JA-125812
J01 M11 (16.05.79) C02c-05/02
Heavy metal components are effectively and economically
removed from a heavy metals-contg. effluent, e.g. mix-
ing effluent, plating effluent and an effluent resulted in
washing smoke discharged from municipal dust-incinerat-
ing furnace, etc. using a small amt. of iron cpd. without
any heating of the effluent by adding iron salts e.g. $FeSO_4$,
etc. or aq. soln. thereof such that the concn. ratio be-
tween Fe(II) and Fe(III) ions become $^1/_3$-$^3/_1$ (1-1), adjusting
the pH value to >9 to form heavy metals-contg. insoluble
magnetic matter, sepg. the insoluble magnetic matter
from the effluent by solid-liq. sepn.
Process further comprises recycling the sepd. insolub-
le magnetic matter to the effluent maintained under pH >9,
so that the heavy metal components or the heavy metals-
contg. minute magnetic matter are deposited on the sur-
faces of the insoluble magnetic matter added (serving as
the nuclei) and simultaneously $Fe(OH)_2$ and $Fe(OH)_3$ are

also deposited thereon, thereby it becomes possible to form more stable insoluble cpds. from which the heavy metal components are hardly redissolved. 21.10.77 as 125812. (5pp34)

MITR ★ D15 47718B/26 ★ J5 4060-760

Treating oil-contg. effluent - by passing successively through sand filler-, oil coagulating-, adsorbing- and activated charcoal contg towers

MITSUBISHI RAYON KK 21.10.77-JA-126650
A81 J01 (16.05.79) C02c-05/02

Oil component is effectively and economically sepd. from waste water without any rise in pressure loss due to blinding of filled layer by passing it successively through (a) a sand filler tower, (b) an oil-coagulating tower, (c) an adsorbing tower packed with granular treating material, and (d) an adsorbing tower packed with activated charcoal, arranged in series.

Coagulating tower is packed with a granular treating material, e.g. prepd. by thoroughly kneading together 95-40wt.% inorganic cpd., e.g. attapulgas clay, Mg aluminate, Fe oxide, Fe hydroxide, Fe oxyhydroxide, MgO etc., and 5-60wt.% of a binder, e.g. alumina sol, cements, magnesia cement, water glass, coal tar, pitch, emulsion or latex of EVA copolymer, styrene-butadiene copolymer etc., followed by pelletising, or by kneading together 90-5wt.% of the inorganic cpd., 5-80wt.% of the binder and 5-90wt.% of a hydrophilic organic cpd., e.g. cellulose powder etc., followed by pelletising and drying or heating at 70-600°C.

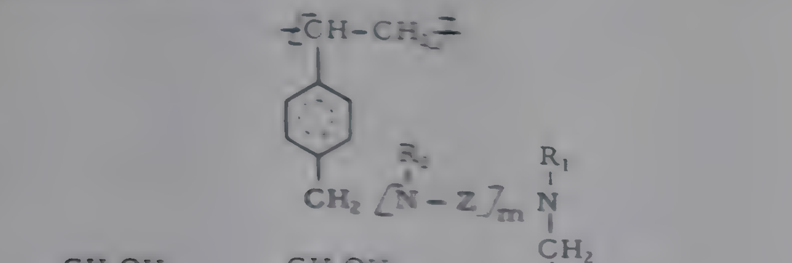
Most of the oil droplets are coagulated together in the tower (b) and rise to the surface of the water to become floating oil, giving only a minimal rise in pressure loss (sic) in the tower (b). 21.10.77 as 126650. (4pp34)

TAHU/ ★ D15 47719B/26 ★ J5 4060-761

Removing water-soluble organic material from aq. soln. - by contacting with cyclodextrin-contg. styrene polymer, used in water treatment, analysis etc.

TAHUSHI I 24.10.77-JA-126741
A97 E14 J04 (A11 A13 E15) (16.05.79) C02c-05/02

Water-soluble organic material, e.g. phenol, naphthol, benzoic acid, naphthaeic acid, toluic acid, cresol, cyclohexanecarboxylic acid, adamantancarboxylic acid, benzenesulphonic acid, nitrophenol, naphthoyl acetic acid etc. are removed from aq. soln. of pH 5-11 by contacting it with a cyclodextrin-contg. polystyrene-polymer having unit s structures of formula (I):



(I)

In (I), m = 1-10; n = 4, 5 or 6; R_1 and R_2 are each H or 1-3C alkyl, and Z is 1-5C alkylene. The metal samples of (I), e.g. Cu, Zn, Ni, Mn, Mg, Co, Al or Fe can be used. The removal of the water-soluble organic material is carried out under a room temp.

The process is used in water treatment, analysis and chemical industries, etc. 24.10.77 as 126741. (10pp34)

KUMA/ ★ D15 47720B/26 ★ J5 4060-762

Water improving agent for aeration type purifying vessel outflow - comprises powdered soil bacteria, ferrous sulphate and sodium bi:carbonate

KUMA K 22.10.77-JA-127070
(16.05.79) C02c-01/02

(dried in air), ferrous sulphate and $NaHCO_3$. B
ferrous sulphate and $NaHCO_3$ to the water, Fe(C
formed and converted by oxidn. to $Fe(OH)_3$, the
ing sludge or scum which is rapidly adsorbed on
face of the gel-like $Fe(OH)_3$ ppte. and settled, a
of the outflow water is rapidly improved.

Further the improving agent serves in seedin
ated sludge and becomes nutrient source for the
activated sludge, the BOD value of the outflow w
decreased to a large extent, and maintained unde
state over a long period. The improving agent i
pack, transport and charge etc., due to its dried
form, and can be stored over long periods. It i
employed even in domestic use. 22.10.77 as 12
(3pp34)

DENY ★ D15 47741B/26 ★

Selectively sepg. caesium from atomic power plant
using resin impregnated with phosphomolybdic a
reaction with ammonium nitrate soln.

DENRYOKU CHUO LAB 25.10.77-JA-127270
J01 K07 M25 (17.05.79) C22b-26/10

Porous resin having no replaceable radicals is i
ed with phosphomolybdic acid, reacted with amm
nitrate soln. to ppte. ammonium phosphomolybd
ed with HCl, and passed through a liq. contg. Cs
Cs collected in the resin is then taken into soln.
NaOH in an amt. 2x that of the resin.

Process selectively separates 134Cs, 137Cs
long half-life elements. By controlling the amt.
sepn. of Cs either in a large vol. of the liq. wast
small vol. for quantitative measurement e.g. in
can be carried out. 25.10.77 as 127270. (4pp53

NTOK ★ D15 47764B/26 ★

Calcining chromium contg. material - e.g. from plating
chromic acid prodn. plant, adding acid or salt prior to calc

NORITAKE KK 24.10.77-JA-126759
E31 J09 M11 (17.05.79) B01j-01 B01j-06

Cr-contg. material, i.e. Cr-contg. sludge e.g.
ed from plating industry, tanning industry and ch
acid-producing plant etc. is made harmless by a
H_2SO_4, HCl, H_3PO_4 or salt in amts. of greater th
chemical equivalent of alkali(ne earth) metal cont
the Cr-contg. matter, and subsequently calcining
1200°C.

By this treatment, Cr component is converted
less trivalent Cr (III) cpd. without formation of C
maintained stably over long period without any di
even in immersing in water. It is possible to ca
the treatment under lower calcination temps. tha
The treatment can be carried out even under oxid
atmos. 24.10.77 as 126759. (5pp34)

CHIA/ ★ D15 47771B/26 ★ J5

Adsorbent for phosphorus and nitrogen cpds. and heavy
prepd. by calcining natural aluminium contg. iron

CHIAKI K 24.10.77-JA-127400
(17.05.79) B01d-15 C02b-01/14

The absorbent is prepd. by calcining a natural alu
silicate, having a Fe content > 3wt.% and a cryst
face area > 20 m²/g., e.g. saponite belonging to
morilonite gp., under an oxidising atmosphere at
800°C to oxidise the Fe component and to remove
and organic matter without any destruction or defo
of the crystal structure. The Fe component conta
the aluminium silicate is made water-insoluble by
oxidative calcination, and exhibits effective coagu
and adsorbing effect against heavy metals containe
water, e.g. Fe, Al, etc.

The agent is capable of removing P and N cpds.
heavy metals, e.g. Fe, Cl, etc. from industrial w
water or domestic effluent, etc., without adversel
ing the quality of the water by dissolution of impur
24.10.77 as 127400. (3pp34)

D15 47925B/26 ★ J5 4061-985
of total nitrogen present in water - by gas chromatography
um as carrier gas
OMO CHEMICAL KK 26.10.77-JA-129092
R16 (18.05.79) G01n-33/18
l N content in water is determined by gas chrom-
hy using He as carrier gas in a chromatograph hav-
ermal conductivity type detector, the N-cpds. can
erted to N_2. The method comprises filling quartz
d metallic palladium in order to first reaction part
actor, filling hydrogen-removing agent (e.g. copper
and reducing agent (e.g. reduced copper) into the
reaction part; carrying out dehydration between
t reaction part and the second reaction part; and
ing the prod. by gas chromatography after the elim-
of CO_2 gas.
total nitrogen in water such as waste water can be
, rapidly and precisely determined. Dehumidifier
. a pipe filled with dehydrating agent such as mag-
n perchlorate or P_2O_5 or an electric cooler.
.77 as 129092. (4pp50)

★ D15 47959B/26 ★ J5 4062-168
chromic waste treatment - by mixing chromic waste contg.
red clay and hydraulic cement and solidifying the mixt.
N EI CHEM IND KK 27.10.77-JA-129060
L02 (18.05.79) B01j-01 C04b-13
mic waste is treated by mixing and solidifying 100 pts.
of the chromic waste contg. 40-98% of water, 5-40 pts.
of red clay, and 10-60 pts. of hydraulic cement to give
lid material which has high strength, so that heavy
als such as Cr are prevented from being eluted.
he toxic industrial wastes (esp. those contg. Cr) are
e non-poisonous. 27.10.77 as 129060. (2pp55)

★ D15 47960B/26 ★ J5 4062-169
dification of toxic waste - by addn. of lipid(s) and hydraulic
ent
AKENAKA KOMUTEN KK (TAKE-) 26.10.77-JA-129295
805 L02 (D23) (18.05.79) B01j-01 C04b-13
ocess for solidifying toxic wastes is claimed, in which,
toxic waste, hydraulic cement (or solidifying material
ntg. hydraulic cement as its main component), and lipids
tty oils, fatty acids, mixts. of fatty oils and fatty acids,
the material contg. above mentioned materials as its
ain component), are added separately, (or at the same
ne) and mixed in order to solidify and fix the toxic con-
minating materials.
Used to treat powder, particle- or mud-type industrial
astes to allow reuse of such waste for the various uses
ch as reclamation etc. As the lipids, crude or waste
dible oils, or the wastes contg. fatty oils or fatty acids,
otd. as by-prods. from various oily medicine prodn.
rocesses can be used. 26.10.77 as 129295. (7pp55)

ITO ★ D15 47961B/26 ★ J5 4062-170
ultiple effect evaporator for plain water prodn. - ensuring good
ansmission of condensed heat and drainage of condensed liq. in
eat conductive pipes of evaporator units
MITSUBISHI HEAVY IND KK 26.10.77-JA-128289
(18.05.79) B01d-01/26
A multiple effect evaporator for producing plain water
from a raw water. Evaporator comprises gps. of multi-
stage preheaters and a gp. of multiple effect evaporator
units. The object is to improve the transmittivity of the
condense heat and to efficiently drain the condensed liq.
in heat conductive pipes of the evaporator units.
A part of the vapour produced in each evaporator unit
is fed into corresp. preheater as a heat source to recover
the condensed water produced after heat exchange, and
the rest is fed into a heating pipe of the following evapora-
tor unit as a heat source to recover the condensed water
produced after heat exchange. A part of vapour produced
in the final evaporator unit is fed into a first preheat unit
and the rest is condensed in the last condenser. 26.10.77
as 128289. (8pp26)

FJIE ★ D15 47972B/26 ★ J5 4062-188
Appts. for recovering and regenerating magnetic active carbon - comprises steel ball-packed magnetic separator and induction heating-type regenerator
FUJI ELECTRIC MFG KK 28.10.77-JA-128617
E36 J01 (18.05.79) B01d-15/06 C01b-31/08
Appts. consists of a steel ball packed type magnetic sep-
arator and an induction heating type regenerator. In the
separator, the magnetic active carbon grains in the water
are adsorbed by steel balls. In the regenerator, the balls
with carbon grains are heated and conveyed by a screw to
drop off the grains into a carbon tank, while the balls are
recovered on a conveyor for carrying them back into the
separator; water vapour in the regenerator is discharged
from a pipe.
Used to treat active carbon used for water treatment.
28.10.77 as 128617. (6pp26)

NIKN ★ D15 48066B/26 ★ J5 4062-654
Treatment of heavy metals-contg. effluent - by adding blast furnace
slag, heating under agitation and treating with carbon di:oxide
NIPPON KOKAN KK 27.10.77-JA-128185
J01 M25 (19.05.79) C02c-05/02
Blast furnace slag is added to the effluent, followed by
heating under agitation to ppte. the heavy metal compon-
ents in the form of hydroxides, sulphides, silicates, and/-
or aluminates; CO_2 is blown into effluent at ordinary
temp. at pH >8, (>8.5) to ppte. Ca ion existing in the
effluent as the carbonate.
Simultaneously, water-soluble sulphur ion also existing
in the effluent is expelled off from the effluent in the form
of H_2S. 27.10.77 as 128185. (3pp34)

MITN ★ D15 48067B/26 ★ J5 4062-655
Dewatering organic sludge - by first adding an alkali substance, iron
salt and hydrogen peroxide prior to filtration
MITSUBISHI GAS CHEM IND 26.10.77-JA-128515
(19.05.79) C02c-03
The improvement comprises adding alkali matter, e.g.
NaOH, $Ca(OH)_2$, Na_2CO_3, CaO etc., to give a pH >9, an
iron salt, e.g. $FeCl_2$, $FeSO_4$, $FeCl_3$, $Fe_2(SO_4)_3$, etc. in
an amt. of 5-30wt.% of the solids content, and hydrogen
peroxide in amt. less than the equimol. amt. of the Fe
salt, pref. 0.4-0.9 mols. per mol. Fe salt, prior to filt-
ration.
Organic matter which is difficult to filter is decompos-
ed by oxidn. due to the hydroxyl radical resulting from the
reaction between hydrogen peroxide and ferrous or ferric
ion. The dewatering rate is increased with a decreased
amt. of filter cake generated. A Fe^{2+}-Fe^{3+} cpd. is form-
ed at pH >9, so that excellent coagulation strength is
obtd., giving flocs with excellent dewatering property.
The process is used for sludge from treatment of sewage,
human waste and industrial waste water. 26.10.77 as
128515. (3pp34)

SUMI- ★ D15 48068B/26 ★ J5 4062-659
Treating phenol-contg. waste liquor - by solvent extn., followed by
pH adjustment aeration and treatment with activated sludge
SUMITOMO DUREZ KK 28.10.77-JA-128647
E14 (19.05.79) C02c-01/06
A waste liquor contg. $>10{,}000$ ppm. of free phenols harm-
ful for aerophilic bacteria contained in activated sludge is
treated by the activated sludge process by initially intro-
ducing it into a phenol-recovering appts. (where the free
phenols are recovered by extn. with an organic solvent,
e.g., aromatic or aliphatic hydrocarbons, ethers, ketones
and amines etc.) to lower the phenol content to <100 ppm;
thereafter introducing the waste liquor thus treated into a
large size adjusting vessel wherein it is adjusted to pH
6.4-7.6, at 15-35°C and BOD concn. of 350-800 ppm.;
transferring the waste liquor to an aeration vessel where
it is treated with activated sludge at 10-30°C under very
low BOD sludge load, e.g. 0.05-0.1 kg./BOD/kg. ss.d;
introducing the liquor thus treated into a sedimentation
vessel to separate it into a sludge and a treated water
which is overflowed from the upper part of the vessel and
outflowed into rivers etc. if necessary recirculating a
portion (10-50%) of the overflowed treated water to the
so as to form closed system. 28.10.77

NIIG ★ D15 48116B/26 ★J5 4062-980

Ultrafiltration of e.g. bacteria and enzyme - using two membranes, one to remove gel-forming impurities and the other to separate components

NIIGATA ENG KK 28.10.77-JA-129417
J01 (21.05.79) B01d-13 B01d-31

The method comprises passing a soln., contg. several components to be sepd. and gel forming impurities, through an ultrafiltration membrane which allows passage of the impurities alone; and passing the purified soln. through an ultrafiltration membrane which allows passage of $\geqslant 1$ of the components to selectively separate the former from the latter. 28.10.77 as 129417. (5pp51)

NITL ★ D15 48118B/26 ★J5 4062-982

Prodn. of complex membrane for reverse osmosis and ultrafiltration - by coating polymer bonding agent on sheet, forming pores, spirally winding on tubular membrane and compressing

NITTO ELECTRIC IND KK 28.10.77-JA-130145
A88 J01 (21.05.79) B01d-13

The membrane is obtd. by (a) coating a polymer type bonding agent on a sheet body, (b) forming pores through the sheet body thus coated to obtain a porous sheet, (c) winding the sheet on a tubular permeable membrane in spiral, (d) inserting a tube type supporter into the tube type membrane thus wound, and (e) compressing the porous sheet and membrane with (hot) water onto the supporter to obtain a complex type permeable membrane.

Specifically, a porous sheet of polyethylene coated with a vinyl acetate system bonding agent is wound on a tube type semipermeable membrane of cellulose acetate to obtain a tube type complex membrane. The complex membrane is inserted in a tube type supporter. The complex membrane is pressed with water onto the inner side of the supporting tube to be completely bonded between the sheet and the semipermeable membrane. 28.10.77 as 130145. (6pp51)

NITL ★ D15 48119B/26 ★J5 4062-983

Tubular semipermeable membrane prodn. - includes coating sheet with polymeric bonding agent, forming pores in the sheet and winding sheet on semipermeable tube

NITTO ELECTRIC IND KK 28.10.77-JA-130146
A88 J01 (21.05.79) B01d-13

The membrane is obtd. by (a) coating a polymeric bonding agent onto a sheet, (b) forming pores through the coated sheet; (c) winding the porous sheet on a semipermeable tube to obtain a tubular composite membrane; (d) inserting the composite membrane into a porous supporting tube and (e) pressing the membrane with pressurised water or hot water onto the supporting tube.

Typically, a porous polyethylene film coated with vinyl acetate system bonding agent is wound on a semipermeable tube of acetyl cellulose to obtain a composite membrane. The membrane is inserted into a porous supporting tube and pressed with compressed water onto the supporting tube. A completely bonded permeable membrane is thus obtd.

The membrane is used in reverse osmosis or ultrafiltration. 28.10.77 as 130146. (6pp51)

ERIC/ D15 05579S/03 =J7 9013-369

Soil composition

ERICSON P E (NYA -) 23.12.69-SW-017858 (08.07.69-SW-009638)
*C04 (28.05.79) *NL7010-080*

MATU ★ D15 48242B/26 ★J7 9013-493

Appts. for producing mineral water - comprises tank valve for tap water or carbon di:oxide and filter layer including active charcoal and calcium carbonate

MATSUSHITA ELEC IND KK 16.06.71-JA-043507
(31.05.79) C02b-07

Appts. consists of a tank, a valve for introducing tap water and CO_2 and removing mineral water, and a filter layer consisting of filter cloth, active charcoal and $CaCO_3$. 16.6.71 as 043507, C02b-7/00 (31.5.79) MATSUSHITA ELEC.IND. KK (3pp83) (J4 8008970)

KUBI ★ D15 48263B/26 ★J7 9

Activated sludge treatment of night soil polluted water - surplus sludge discharged from settling vessel is conc., mixe fresh water etc. to improve dewatering efficiency

KUBOTA KK 27.09.73-JA-110350
(01.06.79) C02c-01/06

In activated sludge treatment of night soil-bearing p water with sea water or saline water as the diluting the improvement comprises (i) concentrating surplu ge discharged from settling vessel, (ii) adding fresh the amt. of which is the same or ca 5 times as that o conc. sludge for washing, (iii) subjecting it further p concn. (iv) recirculating supernatant liquor to activa sludge vessel, and (v) adding coagulant to the conc. followed by dewatering, so that the dewatering efficie is improved. 27.9.73 as 110350, C02c-1/06 (1.6.79) OTA KK (4pp34) (J5 0060051)

IDEK D15 04185X/03 =J7 90

Oil-contg waste water treatment - with activated sludge and a mineral oil- hydrocarbon pref kerosene or naphtha

IDEMITSU INDUSTRIES 29.06.74-JA-074698
*H05 J01 (01.06.79) *DT2528-522 C02c-01/06*

Waste water treatment with an activated sludge takes by admixing waste water with a mineral oil-hydrocar added in a pref. quantity satisfying empirical equation 0.0625 m-6 x 10^{-2} x C x F > V > 0.0275 m-6 x 10^{-2} x (where V is the added quantity of (I) (1/day) m is conc activated sludge (ppm) C is chemical oxygen demand waste water (ppm), and F is flow velocity of waste wa (m^3/hr)). 29.6.74 as 074698, C02c-1/06 (1.6.79) IDE SU INDUSTRIES KK (4pp) (J5 1004868)

TORA ★ D15 48289B/26 ★J7 901

Osmotic filtration appts. - includes pressure resistant casing inlet and outlet, cap, plastic cover plate, perforated plate reinforced plate

TORAY INDS INC 28.12.70-JA-120266
J01 (04.06.79) B01d-13

Osmotic filtration apparatus for sepg. a selective com ent from a liq. comprises a pressure-resistant casing ing inlet and outlet ports for high pressure liq. near th opposite end thereof. A cap is telescoped over an upp portion of the top of the casing, and a plastic cover pl is mounted on the open end of the casing and carryes a number of membrane tubes extending into the casing.

A perforated plate is mounted on the plastic plate, a reinforced plate is mounted on the perforated plate a include a central opening for permitting the sepd. liqui component to be delivered therethrough.

Because of the presence of the reinforced plate, the tire covering assembly including the plastic plate and perforated plate is resistant to high pressure different 28.12.70 as 120266 B01d-13/00 (4.6.79) TORAY INDS. (3pp47)

SUMO D15 02481V/02 =J7 9014

Cadmium recovery - from industrial waste water

SUMITOMO CHEMICAL KK 08.04.71-JA-022232
*E32 M25 (04.06.79) *J47033-990 +C01c-01/22 C01d-05/14*

Clay ores were reacted with water and alkalines and th -action prods. suspended at pH 11-13 and repeatedly ph sepd. to ext. Fe as the impurity into the aq. phase.

In an example, a slurry prepd. from low-crystalline -oysite 2, NaOH 0.72, and H_2O 2.1, kg was kept for 10 at 80°C. water-washed to pH 13, and the cake obtd. sus -ed in 5 l. water, and decanted. After the repeated dec ation until the pH value dropped to 11, the cake was fin washed to pH 10.5 and dried to give 98%, zeolite A (0. Fe). 8.4.71 as 022232, C01d-5/14, C01c-1/22 (4.6.79 SUMITOMO CHEMICAL CO. (4pp) (J4 7033990)

BROV D15 54533R/31 =NL-160-

Equipment for deaerating boiler feed water

BBC BROWN BOVERI 19.10.66-CH-015124 (17.05.66-CH-0071
*Q72 (15.06.79) *DT1526-943 +B01d-19*

Boiler feed water to a steam raising plant is degasified a device mounted directly on the feed water reservoir comprising a cylindrical jacket and a central duct

the steam passes upwards through the central
d the water flows in a curtain downwards through
ular space. There is a communication port be-
he steam duct and the water annulus so that steam
nnular space causes a redn. in the gas partial
re and consequently furthers the degasification of
er stream.
device is compact and causes a minimal pressure
the steam flow and no carry-over of water drop-
23.2.67 as 002754. (6pp1370)

D15 08269S/04 =NL-160-552
x forming polymers having n-contg - aromatic units
NE-POULENC SA 26.08.69-FR-029196 (28.07.69-FR-025747)
*G02 J01 (A18 A97 J04) (15.06.79) *BE-754-011 B01d-*
04 B01j-31/22 +C07b-05/02 C07d-213/04 C08g-06/02

exing polymers are produced by polycondensation of
is-(p-formylstyryl)-2,2[1]-bipyridyl (I) with ketones.
elf is produced by heating a mixt. of 4,4[1]-dimethyl-
ipyridyl with terephthaldehyde in the presence of an
ride of a fatty acid of $\leqslant$12C as the dehydrating agent.
e polymers are used to extract metals from soln.
s catalysts, e.g. in (de)hydrogenation and isomeris-
reactions. 20.7.70 as 010725. (8pp922)

D15 12845W/08 =NL-160-669
ation plant for fluid matl partic sewage sludge - contg. closure
m for the radiation source container channels
ULZER BROS LTD 05.09.73-CH-012729
*07 (15.06.79) *DS2345-576 G21k-05/02*

nstallation is described for subjecting a liq. such as
ficn. slime to radiation. The liq. is circulated
ugh a vessel contg. a holder for a number of radio-
ve sources each placed in a separate channel which
be sealed with respect to the fluid chamber.
The channels are sealed by a common element which
sses onto the open end of every channel with pressure
ts to ensure a tight seat and a locking device.
The arrangement enables the entire set of radioactive
rces to be changed within a short time without the risk
dropping fittings into the works. 9.10.73 as 013881.
p1370)

RO/ ★ D15 B/26 ★OE 7709-264
ste water treatment plant
KUROS G R 22.12.77-OE-009264
(15.06.79) C02c-01/17

ION ★ D15 48368B/26 ★RD-182-047
mpsn. for treating sanitary waste - comprises sodium
poly:phosphate, sodium silicate, sodium carbonate and
rfactant
ANONYMOUS 20.05.79-RD-182047
*E34 (10.06.79) C02c-00/**

mixt. comprising 80-99% Na tripolyphosphate, 1-10 %
a silicate, 0-5% Na_2CO_3 and 0-5% of a surfactant is used
r treating sanitary waste in a holding tank, for example
e holding tank of a travel trailor.
In addn., the compsn. inhibits fermentation and pre-
ents odour. The suspension of the solids is enhanced by
he agitation which occurs during travel with the result that
he waste, when dumped, is a free-flowing fluid. The
ompsn. is vastly superior to compsns. presently avail-
ble commercially. (928)

OYU= ★ D15 48498B/26 ★SU-621-645
wo/stage biochemical purificn. of aq. effluent - using active mud,
with aeration and flotation after first stage
SOYUZVODOKANALPROEK 31.12.75-SU-306575
(29.08.78) C02c-05/10

Biochemical purification of effluent water is effected in
two stage using an active mud, with aeration and flotation
after the first stage. This method is improved by using
in the first stage an active mud having a capacity of 1500-
4000 mg. of BDO (biological demand for oxygen) per gram
of the active mud and per day. Subsequently, before the
sepn. the mud mix is dispersed at a speed of 10-20 m/sec
In the second stage, the water is purified at 50-200 mg
BOD/g. day. By this method, the productivity of the
hanced (1.5-1.8 times) and the consumption of

Skirdov, I.V., Bondarev, A.A., Shvetsov, V.N. et al.
Bul. 32/30.8.78. 31.12.75. as 306575 (3pp70)

SIAG= ★ D15 48716B/26 ★SU-622-431
Livestock manure disinfection system - uses electro-osmosis to
remove liquid prior to aerobic processing
SIBE AGRIC ACAD 29.03.77-SU-475442
P11 (18.07.78) A01c-03

A livestock manure disinfection, for use with manure in a
tank beneath a livestock building involves aerobic treat-
ment of the manure. The system is designed to give a
more intense process by reducing the moisture content
of the manure to 60-75% by electro-osmosis prior to
aerobic processing. Electric current is passed through
the manure via anodes, causing the liquid part of the
manure to travel towards the cathode, made in the form
of a perforated pipe, through which it is removed to an
irrigation network.

The passage of the electrical current speeds up the
process of the subsequent aerobic treatment and intensi-
fies disinfection.

Porsev, E.G., Nyushkov, N.V., Trusov, N.A. et al.
Bul. 33/5.9.78. 29.3.77. as 475442 (2pp119)

UWAT= ★ D15 48739B/26 ★SU-622-501
Flotation separator for effluent purification - has inverted truncated
cone shape set of baffles concentric to water removal system to trap
particles
UKR WATER ENGGS INS 09.03.77-SU-460835
J01 P41 (25.07.78) B03d-01/14 C02c-01/26

The separator is as per Parent Certificate No. 545589 but
to improve efficiency of cleaning by preventing settling
particles being carried out with the cleaned water, it has
inverted truncated cones set concentrically to the cleaned
water removal system. The light suspension, under the
effect of the bubbles of air attached, rises and is directed
by the baffles into the sludge accumulator, where it con-
tinues to rise and is removed by scraper through the
collection trough and out via the outlet tube. The heavy
particles settle and are directed to the bottom by the
baffles, then out via an outlet tube. The cleaned water,
with the settling particles, goes into the bottom, where
the water is sepd. in the laminar space formed by the
concentric cones, and is removed.

Shcherbakov, V.N., Potapenko, P.P., Matsnev, A.I.
Bul. 33/5.9.78. 9.3.77. as 460835 Add to 545589 (2pp18)

PURA ★ D15 B/26 ★SW 7712-485
Pptn. of dissolved impurities from water - by adding pptn. agent and
passing through labyrinth of channels before separation of ppte.
PURAC AB 04.11.77-SW-012485
(11.06.79) B01d-21/08 C02b-01/20

Water is purified by adding a substance that precipitates
dissolved impurities and by separating the precipitated
solid by e.g. flotation, sedimentation or filtering.

The water with the additive enters the inelt of a pre-
cipitation or agglomeration chamber. The chamber has a
separator at its outlet. The chamber contains a labyrinth
of channels which are big enough to prevent filtration of
the precipitate unless the water and the entrained precip-
itate can pass through the chamber. 4.11.77 as 012485
(-pp1407)

MECH- D15 67149Y/38 =US 4157-942
Treatment of concentrated plating solns. and effluents - to render
them nontoxic and simultaneously to recover metals
INST MECH PRECYZYJN 08.03.76-PO-187779
*M11 P35 (M25) (12.06.79) *DT2702-085 +C25d-05/48*

Metals are recovered from cyanide or hexavalent chrom-
ium plating baths by immersing plated articles in a recla-
iming bath contg. an aldehyde or aldehyde precursor and
opt. oxidising agent to ppte. excess metal in the form of
free metal or metal hydroxide, to decompose the cyanide
and to reduce the hexavalent chromium to the trivalent
form. Both the plating and reclaiming baths are regener-
ated.

Reclaiming soln. has pH 3-13 and comprises 1-40 wt.%
aldehyde, aldehyde sulphite or aldehyde ammonia, 0-40
wt.% hydrogen peroxide, 0-20 wt.% ozone, 0-1 wt.% star-
ch or polyacrylamide flocculating agent, and 0-1 wt.% ben-

tonite, iron salt, aluminium salt or magnesium salt as coagulating agent.

Method provides for the neutralisation of toxic effluents and can be used in automatic, semi-automatic and manually-operated plating shops. 18.2.77 as 770026 (5pp931).

CHOW/ ★ D15 48908B/26 ★US 4157-958
Inverted vessel for converting organic waste to combustible gas - with open bottom disposed in body of water which removes waste products
CHOW B H 17.03.78-US-887780
C04 E17 H09 (12.06.79) C02c-01/14

Appts. for converting organic waste materials to conbustible gases comprises a vessel positioned in a body of water having an inlet for addition of organic matter and an open bottom. A perforated pipe is located in the lower portion of the vessel which is connected to a pressurised source of water. An outlet positioned at the top of the vessel permits removal of combustible gas generated in the vessel and is connected to a storage tank. The collected gas is washed to remove non-combustibles.

Used for mfr. of conbustible gas, principally methane, from organic wastes, such as grass cuttings, leaves and sewage sludge. The appts. can operate at a temp. as low as 21°C. Gas can be produced continuously and the operation is self-cleaning. The internal pressure is automatically regulated and the appts. is leakproof. A moving current of water agitates the organic material and sweeps the waste products from the vessel bottom for recovery, e.g for use as fertiliser. Approx. 11 cu. ft. gas per lb. organic waste can be produced. 17.3.78 as 887780 (4pp1044).

UNIV D15 14575B/08 =US 4157-959
Granular bed fluid filter - with upper fixed bed portion above lower fluidised bed portion of variable size, for hot gas cleaning and filtering municipal water
KANSAS STATE UNIV 15.08.77-US-824840
*J01 (12.06.79) *GB2002-250 B01d-37 +B01d-33/40*

Particles are filtered from liquid by supporting a granular filter bed above a fluidization inlet; placing a perforated plate on the top of the bed; passing the liquid up through the bed at a speed at least twice that required for fluidization and so collecting a cake of particles in a lower part of the bed while maintaining the bed above the cake in a fixed non-fluidized state;.

Further, raising the cover plate so that the cake is broken up and forming a fluidized bed below a decreasing non-fluidized bed, the cake re-forming at the boundary of the two beds; and purging the bed by raising the plate completely and flushing with liquid. 15.8.77 as 824840 (9pp1376)

BORS/ D15 48952Y/28 #US 4157-961
Sewage and refuse treatment - by filtering through activated carbon produced in integral carbonizing reactor
BORST A H 24.12.75-DT-558703 (22.12.76-US-753402)
*J01 P41 (12.06.79) *DT2558-703 +C02c-05/02*

Waste water is clarified and rubbish disposed of by agitating the water/rubbish mixture; declerating the mixture to allow the heavier than water particles to separate; removing the settled particles from the bottom; flowing the mixture through a carbon filter and intermittently heating the filter to convert the trapped organics into more filter carbon.

Pref. an activated carbon filter is provided downstream of the carbon filter. The second filter may be backwashed using heated clarified water which is then returned to the mixture. 22.12.76 as 753402 (17pp1376).

HUAN/ ★ D15 48910B/26 ★US 4157-962
Backwashing filter media to form undulating surface - with troughs serving to guide mud balls to injector pipe for comminution and reinjection into media
HUANG J Y C 18.11.77-US-852626
J01 (12.06.79) B01d-23/24

Appts. for filtering suspended solid matter from a flui
-cludes a filter bed contg. particulate filter media hav
ing an average particle size large enough to cause floc
ation of the solid matter in the bed when the fluid has b
treated with coagulant. A pipe extends vertically thro
the filter media and includes at least one inlet part in
vicinity of the top surface of the media capable of rece
ing relatively dense accumulations of solid matter and
solid particulate and flocculated material on the media
carried to the top surface. At least one outlet part re
ns the solid matter to the filter bed after it has been
comminuted.

Used in flocculation/filtration system with backwash
cycle. The backwash cycle is performed through the c
ed-circuit. Use of clarified water is made which scou
and cleans the filter media and breaks up mudballs. T
water is then purified and made ready for another clea
ing cycle. The backwash volume including a final polis
ng step utilises < 2% of the filtered water vol. The re
-ed flocculation period is greatly reduced. The filter
accept higher suspended solid concns. in the fluid load
on the filter. 18.11.77 as 852626 (7pp1044).

TENG- D15 12872Y/08 #US 4157-
Magnetic device for treating calcareous liq. - to prevent deposi
of calcareuous content as hard scale
TENGAM CO LTD 09.04.76-CA-249907 (03.12.76-US-747142)
*(12.06.79) *CA1005-013 +B01d-35/06*

Calcareous liquid is treated in a magnetic device which
formed by two rectangular side elements each being sp
into two end portions by a neck formed by two slots extending from the sides of the elements, a third element
-ween the two side elements having flanges perpendicul
to the plane of the side elements, and four magnets dis
-ed between the end portions of the side elements and t
third element. Fasteners extend through holes in the e
portions and the magnets.

Hard scale formations are limited in humidifiers.
16.5.78 as 906395 (7pp1376).

TEXC ★ D15 48914B/26 ★US 4157-
Settling tank for oil-sepn. - having large length to height ratio
transverse baffles to create piston-like displacement of mixture
TEXACO INC 29.12.77-US-865543
J01 (12.06.79) B01d-17/04

A setting tank for oil and water mixtures comprises an
elongated tank having an inlet located near the top of the
side wall at one end and an outlet located near the botto
the side wall at the other end. A second outlet for oil
is located at a level above the inlet. Baffles in the tank
avoid channeling of the mixture and include parallel tra
verse panels which have patterns of apertures. The tan
has a length to wall height ratio of about 25 and the wall
height is about 4 feet.

The baffles create a piston-like displacement of the
-ture as it moves from the inlet to the outlet end. The
wall height is short enough to miminize the vertical mig
-tion distance of mixture oil particles. Alternative one
of the panels have apertures for restricting fluid flow n
the centre than near the ends and the remainder have apertures for restricting fluid flow near the ends more th
the centres. The panels may be removable to permit s
and silt removal without shut down of the tank operation.
The increased length of the tank increases the residenc
time of the fluids in the tank. 29.12.77 as 865543 (6pp1

See Also

D22 BE 872920 D22 DT 2853119 D25 BE 872938

D16 : FERMENTATION INDUSTRY

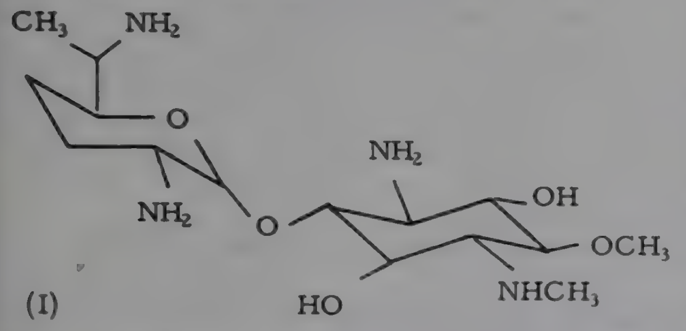
SOLB ★ D16 47144B/26 ★BE -872-884
Hetero-vaccine for treatment of trichomonas syndrome - contains inactivated strains of Lactobacillus acidophilus in physiological medium
SOLCO BASEL AG 23.12.77-CH-016012
B04 (19.06.79) A61k C12k

Heterovaccine for the treatment of trichomonas syndrome comprises inactivated strains of Lactobacterium acidophilum, in a suitable physiological solution. The inactivated Lactobacteria may be obtd. from some of the above strains or all of them in about equal numbers.

Used for prophylactic and therapeutic treatment of trichomonas syndrome and asymptomatic, chronic and acute trichomoniasis by intramuscular injection of three 0.5 ml (i.e. $7x10^9$ bacteria) unit doses of vaccines at two week intervals followed by a booster injection of 0-5ml of vaccine one year after commencement of treatment. Treatment of Trichomonas vaginalis infections with antiprotozoal drugs e.g. metronidazol allows re-infection within a short period - the use of the vaccine gives prolonged protection. 19.12.78 as 872884 (23pp395)

ABBO ★ D16 47156B/26 ★BE -872-916
Amino:glucoside antibiotic fortimicin E - useful as antibacterial, disinfectant and intermediate
ABBOTT LABORATORIES 21.12.77-US-863016
B03 E13 (D22) (20.06.79) A61k C07h C12d

Fortimicin E of formula (I) and its pharmaceutically acceptable salts, esp. its tetra-hydrochloride; are new:



(I)

(I) is made by cultivation of Micromonospora olivoasterospora ATCC 21819, 31009 and 31010.

(I) is an antibacterial with a more selective spectrum of activity than other fortimicins It is typically administered at 10-100 mg/kg per day (by injection) and can also be used to disinfect surfaces, and as an intermediate for other antibiotics such as its 4-N-aminoacyl derivs 20.12.78 as 872916 (11pp1251)

SHIN/ ★ D16 B/26 ★BR 7707-924
Installation for chlorella cultivation
LEE JUH SHING J 28.11.77-BR-007924
(12.06.79) A61k-37/48

SHIN/ ★ D16 B/26 ★BR 7707-925
Installation for chlorella cultivation
LEE JUH SHING J 28.11.77-BR-007925
(12.06.79) A61k-37/48

SHIN/ ★ D16 B/26 ★BR 7707-926
Chlorella cultivation
LEE JUH SHING J 28.11.77-BR-007926
P34 (12.06.79) A61n-37/48

KITA D16 11403V/07 =DS 2348-897
Killed mycoplasma vaccine for protection of domestic animals - against mycoplasmosis diseases
KITASATO RES INST 05.10.72-JA-100028
*B04 C03 (21.06.79) *BE-805-570 A61k-39/02*

Inactivated mycoplasma prepns. for immunisation of animals against mycoplasmic infection of the lungs or bronchial system comprises a dispersion of dead mycoplasma cells, ($2x10^5$ per cm^3), in an aq. buffer soln. of pH 6-7.8 contg. a stabiliser.

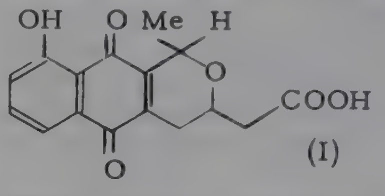
Pref. stabilisers are saccharides, aminoacids, poly (ethylene oxide-sorbitan) monooleate, gelatine and disodium EDTA. Pref. species (with stabiliser) are M. gallisepticum or M. synoviae, (with poultry serum or corresp. albumin); M. suipneumoniae (with pig serum or albumin); or M. mycoides var. capri (with goat serum or albumin). 28.9.73 as 348897(10pp47)

JODE/ D16 47871W/29 =DS 2365-17
Compsn accelerating biological degradation of mineral oil - prep from ceric salt-enriched calcium lignin sulphonate solns
JODEHL P A 29.12.73-DT-365170
*H08 (21.06.79) *DT2365-170 C12b-03/02*

Mixt. for accelerating the biological decomposition of mineral oil prod. is produced by dissolving 100g Ca ligni sulphonate, having a standardised Fe content of 0.1%, in 1 litre H_2O; heating this soln. to 75°C and adding, with continuous stirring, 40.4g Ce^{IV} sulphate; and to an amt. of 0.5 g of the lignin sulphonate soln. (II), enriched with Ce, there is added 2g. of a soln of 50g. stearic acid and 8g triethanolamine in 1000 cm^3 water, with continuous stirring and with heating to 85°C. Alternatively, a 20% $Al_2(SO_4)_3$ soln. is added to (II) at $\not>$35°C. 29.12.73 as 365170(4pp481)

KITA D16 66305W/40 #DS 2510-868
Antibiotic OS-3966-A prepn. - by aerobic culture of Streptomyces rosa var. notoensis (FERM-P 2209)
KITASATO RES INST 11.09.73-JA-101719 (13.03.75-DT-510868)
*B04 (21.06.79) *J50052-287 C07d-311/92*

Nanaomycin A of formula (I) is new.



(I)

Prepn. of antibiotic (I) and also nanaomycin B com-prises cultivating Streptomyces rosa car. notoensis, FERM-P 2209 in a suitable nutrient medium at pH 6-10 under aerobic conditions at 15-40°; the antibiotics are extd. in the usual manner and purified.

(I) is active against mycoplasma, gram-positive organisms and trichophyton species. 13.3.75 as 510868(9pp47)

BEHW D16 74169Y/42 =DS 2616-407
Antirabies vaccine prodn. by growing virus in fibroplasts - of chick embryo, using increasing culture dilutions during passivation
BEHRINGWERKE AG 14.04.76-DT-616407
*B04 C03 (21.06.79) *BE-853-604 A61k-39/28*

Prepn. of rabies vaccine for immunisation against rabies comprises repeated propagation of rabies virus in chicken embyrofibroblast cell culture media. The virus is inactivated by increasing the dilution, (10^{-1} - 10^{-5}), for successive propagations, (reproduction factor 10^{-2} - 10^{-5}). The inactive virus is then isolated and dispersed with the usual buffer solns. and additives. 14.4.76 as 616407(6pp)

BADI D16 09987B/06 =DS 2735-816
Peroxide bleaching of textile material contg. cellulose - with preliminary treatment using amylase, sodium dithionite, stabiliser and buffer
BASF AG 09.08.77-DT-735816
*E19 F06 (E37) (21.06.79) *BE-869-536 D06l-01/14 D06l-03/02*

Textiles of cellulose, which have been sized with starch, are desized and then bleached. The desizing bath contains amylase as desizing agent and 0.1-10% sodium dithionite, 0.2-10% heavy metal complex builders (I) and 0.05-5% of a buffer mixt. maintaining a pH of 6-9 in the desizing bath. Using this desizing compsn the bleaching bath contg. hydrogen peroxide need only contain up to 5ml. water glass of 38° Be' per litre.

This improves the quality of the bleaching. Builders (I) may be aminopolycarboxylic acids and their alkali (ne earth) salts, polyphosphates or polyphosphonic acids and their salts. 9.8.77 as 735816(7pp68)

OLYU D16 65664A/37 =DS 2809-032
Fluid feed device for automatic incubator - with detachable pipe inlets and swivelling dispenser
OLYMPUS OPTICAL KK 02.03.77-JA-024766
*A88 (A26) (21.06.79) *DT2809-032 C12k-01/10*

A device to supply a nutrient, buffer or enzyme soln to the automatic incubator for biological tissues and cells consists of a piston pump for drawing the soln from a storage tank and delivering it to a fitting which passes through the incubator wall. This fitting includes an outer tube which is sealed in the wall by silicone. An inner tube is screwed into the outer tube and sealed by O-rings. The pipe from the pump is embedded in silicone inside the inner tube.

This facilitates the handling of the connection by less highly skilled personnel and eliminates contamination by manual handling. 2.3.78 as 809032(5pp39)

SCHD ★ D16 47378B/26 ★DT 2757-156
21-Hydroxy-20-methyl-pregnane derivs. prodn. - by fermenting sterol cpd. with Mycobacterium culture in presence of boron cpd.
SCHERING AG 19.12.77-DT-757156
B01 (21.06.79) C07b-29/02 C07j-05 C07j-09

Prepn. of 21-hydroxy-20-methyl-4-pregnen-3-one (Ia) or 21-hydroxy-20-methyl-1,4-pregnadien-3-one (Ib) comprises fermenting a zoosterol or phytosterol with a culture of Mycobacterium sp. NRRL B-3683 or B-3805 (or their variants or mutants) at pH 6.0-8.0 in the presence of borate ions or organoboron cpds.

Cpds. are intermediates for pharmacologically active steroids e.g. gestagenic 4-pregnen-3,20-dione cpds. Addn. of B. cpds. gives significantly increased yields. 19.12.77 as 757156 (14pp367)

GAMB- ★ D16 47432B/26 ★DT 2853-897
Measurement of concn. of cpd. in fluid - passed through enzyme bed having been previously deaerated
GAMBRO AB 16.12.77-SW-014335
B04 J04 R16 (21.06.79) G01n-31/14

Method involves passing the fluid through an enzyme bed where the cpd. is acted upon to produce or consume a reaction prod. which is measured in a measurement cell. Suitable enzymes are selected according to the partic. application.

Before being passed through the enzyme bed the fluid is de-aerated. This may alternatively take place in the upper part of the enzyme bed when the fluid is passed through from top to bottom. 14.12.78 as 853897 (15pp1297)

BOEF D16 56929A/32 =EP ---2-438
Storage-stable cholesterol:oxidase preparations - contg. buffer and sodium or potassium chloride as stabiliser
BOEHRINGER MANNHEIM GMBH 14.12.77-DT-755799
*B04 (27.06.79) *DS2755-799 C07g-07/02 +A61k-37/48 C12d-13/10*
D/S: E(BE,CH, DT, FR, GB, LU, NL, SW).

Storage stable aq. cholesterol/oxidase formulations contain a buffer and 2-3.5 mole NaCl or KCl per litre as a stabilising agent.

The stabilisors prevent the enzyme from forming a floccular fatty ppte, which although still enzymatically active, makes measuring doses difficult.

4.10.78 as 101065 (7pp1401).
(G) ISR: DT2711720; DT2712007.

SCHD D16 47378B/26 =EP ---2-535
21-Hydroxy-20-methyl-pregnane derivs. prodn. - by fermenting sterol cpd. with Mycobacterium culture in presence of boron cpd.
SCHERING AG 19.12.77-DT-757156
*B01 (27.06.79) *DT2757-156 +C07b-29/02 C07i-09*
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW).

Prodn. of 21-hydroxy-20-methyl-4-pregnen-3-one (Ia) or 21-hydroxy-20-methyl-1,4-pregnadien-3-one (Ib) comprises fermenting a zoosterol or phytosterol with a culture of Mycobacterium sp. NRRL B-3683 or B-3805 (or their variants or mutants) at pH 6.0-8.0 in the presence of borate ions or organoboron cpds.

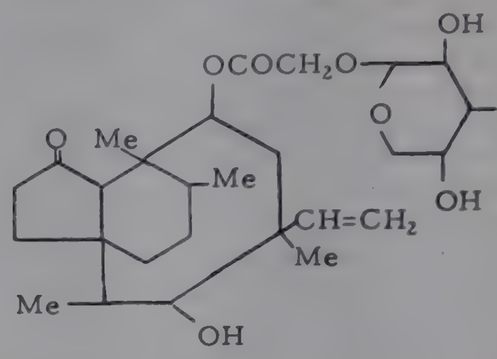
The prods. are inters. for pharmacologically active steroids e.g. gestagenic 4-pregnen-3,20-dione cpds. Addn. of B cpds. gives significantly increased yields.

15.12.78 as 101711 (13pp367)
(G) ISR: US3684657; US3759791. 4 Journal References.

ELIL D16 93172A/51 =EP ---2
Antibiotic A-40104 fraction A - useful as broad spec antibacterial effective against Mycoplasma species
ELI LILLY & CO 08.12.77-US-858505
*B03 C02 (27.06.79) *US4129-721 A61k-31/22 C07c-69/14 C*
11 C07h-15/18 C12d-09/04
D/S: E(DT, GB, IT, NL, SW).

(A) Antibiotic mixt. comprising Antibiotic A-40104 fac
A, B and D and pleuromutilin (I) is new.

(B) Factor A is the β-D-xylopyranosyl acetyl deriv.
(I); it is new together with its 19.20-dihydro deriv., an
the tetra-(2-6C)alkanoyl derivs of both cpds.:



(I)

(C) Factor B is a white amorphous cpd. of molecular
wt. 394 (electron-impact mass spectrometry), having a
empirical formula of about $C_{22}H_{34}O_6$ with a characterisi
i.r. spectrum and with 3 acylatable OH gps.; it is new together with its 19.20-dihydro deriv., and the tri-(2-6C
alkanoyl derivs. of both cpds.

The antibiotic mixt., and factors A and B and their derivs. have low toxicity and are broad-spectrum antibacterials and are active against anaerobic bacteria an
mycoplasma, and so have potential for treating mycoplasma diseases in poultry, sirine and cattle and cattle dysentery caused by Treponema hyodysenteriae. They
also effective against plant pathogens, esp. against Spir
plasma citri.

7.12.78 as 300768 (48pp1248).
(E) ISR: GB1111009, US3949079, 1 Journal Reference.

MERI ★ D16 47545B/26 ★EP ---2-
Antigenic immunogenic complex from Neisseria gonorrhoea useful for forming an immunising vaccine
MERCK & CO INC 20.12.77-US-862265
B04 (27.06.79) A61k-39/02 C12k-05
D/S:E(BE,CH,DT,FR,GB,NL).

Antigenic, immunogenic complex (I) obtd. from the cell surface of N.gonorrhoeae is new. It has a molecular wt of 9.2-9.5 x 10^6; >80% of the complex is formed of 5 subunits in about equal amounts and they have molecula
wts. of 68000, 50000, 34000, 27000 and 10500; it contai
(dry wt. basis) 90-95% protein, ≤ 7% lipopolysaccharide
2% carbohydrate and < 1% RNA, DNA and phospholipids

(I) can be formed into a vaccine for admin. to subjec
to give protection against challenge from live virulent N-gonorrhoeae cells.

15.12.78 as 400245 (10pp1248)
(E) ISR: 6 Journal References.

RENA/ ★ D16 47548B/26 ★FR 2403-
√**Perforated cylinder wine making press - uses power ram for first c
second stage pressings**
RENARD P 27.09.77-FR-029089
(25.05.79) A23n-01

The press comprises a horizontal cylinder with wall ope
ings to discharge juice, and a hopper from which fruit i
gravity-fed into the cylinder. Juice extn. now takes pla
as fruit in the cylinder is pressed by a ram which can be moved axially to and fro inside the cylinder. The ra
pref. passes directly beneath the cylinder aperture com
unicating with the feed hopper.

The cylinder is pref. formed in two, axially-aligned sections; a first section in which the ram reciprocates beneath the feed hopper and a second section which has
discharge door for marc at the far end from the first
section. The two sections have separate drainage for co

Juice from first and second stage pressings is auto-natically sepd.. The press is compact, can be portable r mobile and thus used on site. 27.9.77 as 029089 (8pp).

IYDR= ★ D16 47566B/26 ★FR 2404-045

ndustrial plant growing microorganisms for food or fodder - has epg. chamber with auxiliary contacting zone for air and culture nedium

HYDROLYSIS IND 23.09.77-FR-028829

A88 C03 (D13) (25.05.79) C12b-01/16

'he installation comprises a vertical reaction chamber n which mixed air and culture medium are contacted in a ising current. The reaction chamber has a cooling cir-uit to transfer heat away from the reaction zone. The eaction chamber is connected top and bottom to corresp. op and bottom of a vertical separator vessel which has an nternal foam dissipator, a gas exhaust vent and a prod. utlet.

The separator vessel has an auxiliary contacting zone n which open air pipes extend upwards from an air chest. Mixed air and culture medium are contacted in a rising current in the auxiliary contacting zone of the separator ocated below the sepg. zone. In the separator, the mixt. of air and culture medium pref. rise in vertical, open-topped pipes each with an air jet projecting up the open lower end of the pipe. The vertical pipes are pref. made of non-metallic material, partic. polyethylene or laminated glass fibre.

Used in industrial prodn. of yeasts, bacteria, algae of glucide or hydrocarbon base, etc., partic. for the mfr. of foodstuffs or additives for fodder. The auxiliary contacting zone improves mfg. efficiency to make the plant economically attractive for industrial scale prodn.. 23.9.77 as 028829 (13pp448).

GRAI D16 79439X/43 =GB 1547-832

Light beer of low volatiles content, prepn - by fermenting hydrolysed starch in presence of protein hydrolysate

GRAIN PROCESSING CORP 06.06.75-US-584659

*(27.06.79) *BE-842-510 C12c-11 +C12b-03/08 C12c-05*

A non-distilled alcoholic beverage is prepd. by inoculating a fermentation medium with a strain of yeast capable of producing alcohol from hydrolysed starch, and allowing to ferment, then processing to obtain the beverage.

Medium contains hydrolysed starch, a protein hydrolysate, a source of ammonium ions and a phosphate. Pref. temp of fermentation medium is 22-30°C. Medium contains $\leqslant$ 25 wt.% dissolved carbohydrate solids. Starch is liquefied with alpha-amylase and converted or saccharfied with beta-amylase to provide a Dextrose Equiv. of 41-44.

Beer is produced from starch using higher solid levels. Light beers can be prepd. with low levels of volatiles (esters and high mol. wt. alcohols), and which require no chill proofing). 7.6.76 as 023399(8pp931)

CANC- ★ D16 47584B/26 ★GB 2010-089

Immuno-therapeutic agent for treating cancer - comprising in vitro sensitised anticancer lymphocytes

FOUND PROM CANCER I 16.12.77-JA-151486

B04 (27.06.79) A61k-35/12

An immuno/herapeutic agent for treating cancer is made by extracting in a liquid medium antigerms from radiation-alternated live tumor cells, contacting the antigen-containing medium with macrophage cells and extracting the resultant liquid medium, sensitising normal lymthoayte cells from the blood of a healthy human with the extrd. medium under culturing conditions and extracting the sensitised lymphoayte cells from the medium and suspending them in a carrier soln. 6.12.78 as 047387(5pp476)

MOLS- ★ D16 47613B/26 ★GB 2010-326

Rapid brewing of malt drinks - by prior air classification of the malt flour, and use of high starch fraction

MOLSON COS LTD 16.12.77-CA-293257

(27.06.79) C12c-09

A malt beverage is brewed as follows: (a) a malt flour is prepd. and subjected to air classification to afford a malt flour fraction (I) with a high starch content, and a fraction (II) with a low starch content; (b) (I) is mixed with H_2O to form a mash; (c) mash is heated to afford a wort; (d) the wort is boiled, then cooled and fermented with yeast to give the title beverage.

Use of air classification with malt flour eliminates the need to dry grainand to have lengthy lautering operations, and mashing and wort boiling may be in one kettle. In addn the process may be automated, required less energy, and gives a very stable prod. and useful, high protein by-prods 25.8.78 as 034676(6pp478)

LEES- ★ D16 B/26 ★IT 1030-015

Gas recovery method

LEES J W & CO 31.05.71-IT-068845

(30.03.79) C12l

TOXN ★ D16 47684B/26 ★J5 4060-384

Higher fatty acid ester(s) of cellulosic fibrous derivs. - used as carrier having high lipase adsorption

TOYO BREWING KK 00.00.78-JA-080706 (12.09.72-JA-092001)

A11 B04 (A97) (15.05.79) C08b-15

The process comprises carboxymethylating, phosphating, sulphomethylating, sulphoethylating, p-aminobenzylating, aminoethylating, diethylaminoethylating, triethylaminoethylating or guanidinoethylating cellulosic fibre and treating resulting cellulosic deriv. with a fatty acid halide in the presence of a base.

In an example, 5 g. of cotton gauze is fed in 20 ml. of 10N aq. NaOH and the mixt. is cooled for 30 mins. in ice bath under agitation. The mixt. is then admixed with 3 g. of monochloroacetic acid dissolved in 5 ml. of water and reacted at 70°C for 20 mins. The reaction mixt. is cooled in ice bath, added with 50 ml. of 10% acetic acid, and diluted with 200 ml. of water. The insolubles are sepd., rinsed with water several times, added with 1 ml. of glacial acetic acid and rinsed with water until showing of no acidic pH of the washings. The insolubles are then washed with ethanol and dried to give carboxymethylated cotton gauze.

In a soln. of 10 g. of palmitic chloride in 40 ml. of pyridine, 3 g. of the carboxymethylated gauze is suspended and reacted at 30°C for 15 hrs. under agitation. Then the reaction mixt. is admixed with 100 ml. of chloroform, then with 100 ml. of ethanol to collect the pptd. solids, which are then washed with 200 ml. of chloroform/ethanol (1:1) and then with 100 ml. of ethanol. After drying palmitate ester powder of CM-Ce is obtd. in a yield of 3.2 g.

The process can provide a novel carrier having high adsorptive power for lipase which can separate, purify, etc., lipase conveniently. 12.9.72 as 80706/78, Div. ex 92001/72. (4pp59)

MARZ ★ D16 47737B/26 ★J5 4060-997

Reagent for determining N-acetyl-beta-D glucosaminidase in blood serum - contains two colour developing solns. e.g. prepd. from aq. 4-amino-antipyrine and sodium thiosulphate

MARUKO SEIYAKU KK 24.10.77-JA-127380

B04 R16 (16.05.79) G01n-3i/14 G01n-33/16

Reagent is composed of (a) substrate (e.g., a soln. prepd. by dissolving phenyl-N-acetyl-β-D-glucoaminide and NaCl in citric acid buffer of pH 4.0-4.5), (b) reaction stopper (typically boric acid buffer of pH 7.5-9.5 or aq. NaOH soln.), (c) colour-developing soln. (e.g., aq. soln. of 4-amino-antipyrine and Na thiosulphate), and (d) the second colour-developing soln. (e.g., aq. soln. of potassium ferricyanide and boric acid).

The reagent is used for colourimetric determn. of N-acetyl-β-D-glucosaminidase in blood serum. The determn is carried out in the visual region near 500 nm. and interference by blood serum ingredients can be excluded. 24.10.77 as 127380. (4pp173)

TAKE ★ D16 47782B/26 ★J5 4061-101

antibiotic C-8030 B,C,D, and E - having insecticidal and miticidal activities, obtd. from Streptomyces strain

TAKEDA CHEMICAL IND KK 24.10.77-JA-127901

B04 C03 (17.05.79) A01n-09 C07g-11 C12d-09/14

Antibiotics C-8030 B having the following properties: (I) specific rotation: $[\alpha]_D^{25}$ -8.7° (c 1.01, H_2O), -6.2° (c = 1.01, N/10 HCl); (II) pKa (titration): 8.85 ± 0.2, 3.25 ± 0.2, (III) molecular weight (titration, UV method, CMR method): about 600, (IV): elemental analysis (%): C 43.00, H 5.71;

N 10.34 (C 42.17, H 5.66, N 10.64). Antibiotics C, D and E are also new. Prepn. of C-8030B, C, D and E comprises culturing strain belonging to the genus Streptomyces in a medium.

C shows antibiotic effect to Mycobacterium and parts of other bacteria. B, D and E does not show antibiotic effect to bacteria, Eumycetes. Further, B, C, D and E show insecticidal and miticidal activities. Pref. active cpds. are prepd. by culturing Streptomyces species C-8030 (FERM-P 4084, IFO-13769, ATCC 31291). 24.10.77 as 127901. (15pp108)

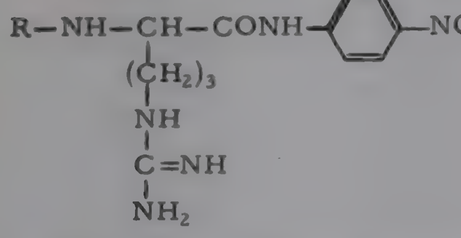
AJIN ★ D16 47795B/26 ★J5 4061-128

Peptide deriv. used as enzyme substrate - is prepd. from arginine para-nitro:anilide and protected aminoacid

AJINOMOTO KK 18.10.77-JA-124691

B05 (B04) (17.05.79) C07c-129/12 C07d-207/08

New peptide derivs. are of formula (I):



(I)

(where R is seryl-glycyl, leucyl-glycyl, glutaryl-glycyl, t.-butyloxycarbonyl-glycyl, valyl-prolyl or t.-butoxycarbonyl-prolyl).

(I) is prepd. e.g. by reacting arginine p-nitroanilide with protected amino acid in the presence of condensing agent (e.g. DCC) and deprotecting the resultant cpd. (I) is useful as a synthetic substrate for prepg. enzymes, such as trypsin, kallikrein, thrombine, urokinase, etc., being hydrolysed by these enzymes. 18.10.77 as 124691. (-pp104)

AGEN ★ D16 47924B/26 ★J5 4061-984

Electrochemical determn. of alcohol concn. in soln. - by treating with alcohol dehydrogenase contg. NAD and determining oxidn.-redn. potential of NAD NADH-2 system obtd.

AGENCY OF IND SCI TECH 27.10.77-JA-128949

A89 B04 J04 R16 (18.05.79) G01n-27/52

Method comprises treating an alcohol soln. with alcohol dehydrogenase contg. NAD to convert the amt. of the NAD corresp. to the alcohol concn. into its reduced matter ($NADH_2$), and determining the oxidn.-redn. potential of the resulting oxidn.-redn. system consisting of NAD and $NADH_2$.

The alcohol-selective enzyme electrode used is obtd. by contacting a standard soln. exhibiting a given oxidn.-redn. potential with a face of oxidn.-redn. potential-responding membranes to form an oxidn.-redn. membrane electrode, and laminating NAD-contg. alcohol dehydrogenase film on another face of the membrane to form a face to be contacted with the sample alcohol soln.

The alcohol concn. in soln. is very easily and precisely determined.

As oxidn.-redn. substance composing the oxidn.-redn. potential responding membrane, metallocene is pref. used. Membrane material is pref. a high polymer substance such as polyethylene. The electric resistance between the surfaces of the membrane is 10^4-10^9 ohms. 27.10.77 as 128949. (5pp50)

SEGK ★ D16 48056B/26 ★J5 4062-385

Neuraminidase purification - by subjecting a soln. of the material to weak anion exchanger and then cation exchanger chromatographic treatments

SEIKAGAKU KK 21.10.77-JA-125855

A91 B04 (19.05.79) C07a-07/02 C12d-13/10

Method comprises subjecting a soln. of neuraminidase (I) to (i) weak anion exchanger (II) chromatographic treatment and then (ii) cation exchanger (III) chromatographic treatment. (II) may be diethyl amino ethyl cellulose or diethyl amino ethyl sephadex. (III) may be sulphoethyl cellulose, sulphomethyl cellulose, phospho cellulose or CMC. Pref. (I) is obtd. from the culture medium, in which Streptococcus S. B. IID 6646 has been incubated.

The method is inexpensive and can be used for mass-prodn. 21.10.77 as 125855. (4pp42)

KIRI ★ D16 48057B/26 ★J5

Alkali protease prodn. - by culturing fungi of Acremonium

KIRIN BEER KK 26.10.77-JA-128342

B04 (19.05.79) C12d-13/10

Prodn. of alkali protease comprises culturing alk
tease-producing fungi of Acremonium genus in a c
medium to yield alkali protease and removing alka
tease. Pref. Acremonium genus No.12 strain (F
No.4222) or Acremonium persicinum CBS 16963 i

Alkali protease is useful as an additive to phar
icals, detergents or for application in the food ind
leather industry. 26.10.77 as 128342. (5pp69)

AJIN ★ D16 48058B/26 ★J5

L-Glutamine prodn. by fermentation - by culturing a c
resistant Brevibacterium mutant

AJINOMOTO KK 26.10.77-JA-128314

B05 E16 (19.05.79) C12d-13/06

Method comprises (i) incubating a mutant (II), bel
Brevibacterium and having resistance against coba
(III) and ability to produce L-glutamine (I), and (ii
ing of (I) accumulated in the culture medium.

(II) is a novel stock and (II) can produce (I) in h
Examples of (II) are Brevibacterium divaricatum
14020, Brev. fulvum ATCC 14067, Brev. lactofern
ATCC 13869 and Brev. saccharolyticum ATCC 140
is obtd. from wild strain by contact with N-methyl
ro-N-nitroso guanidine and screened by incubation
mutant in culture medium of high content of (III).

For prodn. of (I), (II) is incubated in a culture
contg. carbon sources, such as glucose, sucrose,
acid, etc., nitrogen source, such as ammonia and
ium salt, and inorganic salts, at 25-37°C and pH 4
1-7 days. 26.10.77 as 128314. (3pp42)

SAGA ★ D16 48059B/26 ★J5

Peptide prodn. - by using a metal proteinase in presence o
inorganic salt

SAGAMI CHEM RES CENTRE 26.10.77-JA-127638

B04 (19.05.79) C12d-13/06

Prodn. of peptide (I) comprises forming peptide-bo
the presence of enzyme (II), belonging to metal pro
and inorganic neutral salt (III).

(II) can readily form peptide-bond. Method desc
increases the yield of prod. It is considered that a
(III) can activate peptidase and inactivate proteinas

As (III), salts that exhibit pH between 6-8 in aq.
should be used, and examples are NaCl, KCl, BaC
Na_2SO_4, NH_4SO_4, etc. 26.10.77 as 127638. (7pp42

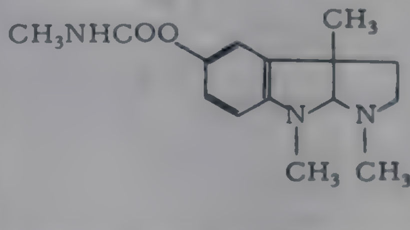
TAKE ★ D16 48060B/26 ★J5

Prepn. of physostigmine, used as pharmaceutical - by cu
strain of Streptomyces fungus

TAKEDA CHEMICAL IND KK 24.10.77-JA-127900

B02 (19.05.79) C12d-13

Prepn. of physostigmine of formula (I) comprises
ing Physostigmine-producing fungi of Streptomyces
to accumulate Physostigmine in culture mixt. and t
out resultant Physostigmine. A typical fungus is S
myces pseudofriseolus subspecies Iriomotensis (C-
fungus) sepd. from soil in Nishiomote island in Oki
prefecture or its related fungus strain.



(I)

Physosti
is alkaloid
ed in seed
sostigma v
sum (calab
and may be
lied as pha
ceutical dr
miotic, drug for hyperperistalsis of intestine etc.
24.10.77 as 127900. (7pp69)

MITN ★ D16 48061B/26 ★J5 4

Protein prodn. - by treating microbial mycelium with
surfactant and extracting the protein

MITSUBISHI GAS CHEM IND 27.10.77-JA-129080

(D13) (19.05.79) A23i-01 C12d-13/06

Method comprises (1) treatment of mycelium anioni

Colouration of the prod. can be removed.

Examples of mycelium are those from Pseudomonas, Corynebacterium, Streptomyces, Bacillus, Aerobacter, Candida, Torulopsis and Hansenula. As surfactant, fatty acid, salt of fatty acid, higher alcohol sulphate, aliphatic amine, aliphatic amide, etc. are used. 27.10.77 as 129080. (4pp42)

TOXN ★ D16 48062B/26 ★ J5 4062-392

Sisomycin antibiotics prepn. - by culture of Micromonospora cyaneogranulata

TOYO BREWING KK 25.10.77-JA-128509

B04 (19.05.79) C12d-09/14

Prepn. Sisomycin antibiotic comprises culturing Micromonospora cyaneogranulata fungi. Specifically, actinomycetes A 10030 strain Micromonospora Cyaneogramulata A 10030 strain FERM-P-No. 4276, sepd. from soil at Kakegawa City in Shizuoka prefecture is used.

In an example, culture was effected in a medium (pH 7.0) (100 ml.) contg. 2% of glucose, 2% starch, 2% of protoflower, 0.5% of yeast extract, 0.25% of sodium chloride and 0.35% of calcium carbonate at 30°C for five days at 250 rpm. The resulting mixt. was transferred to a culture liquor (pH 7.2) (2001) (120°C, sterilisation for 20 mins.) contg. 5% of dextrin, 0.5% of glucose, 3% of protoflower, 1.3 mg/l of cobalt chloride and 0.7% of calcium carbonate and culture was carried out under aeration of bacteria-free air at 250 l/min. for five days to give ca. 200 l of culture mixt. 25.10.77 as 128509 (14pp69)

TOXN ★ D16 48063B/26 ★ J5 4062-393

Antibiotic verdamycin prodn. - by culturing fungi of Micromonospora cyaneogranulata

TOYO BREWING KK 25.10.77-JA-128510

B04 (19.05.79) C12d-09/14

Prodn. of antibiotics Verdamycin comprises culturing antibiotics Verdamycin-producing fungi of Micromonospora cyaneogranulata in a culture medium and removing antibiotics Verdamycin from the culture mixt. 25.10.77 as 128510. (13pp69)

NIRA ★ D16 48064B/26 ★ J5 4062-396

Decolourising 'seishu' produced by rice fermentation - by contacting with chelating ion exchange resin and active carbon

UNITIKA KK 21.10.77-JA-126997

(19.05.79) C12h-01/04

A method for decolourisation of "Seishu" (I), involves bringing (I) in contact with chelating ion exchange resin (II) and active carbon. "Seishu" is a Japanese liquor produced by fermentation of rice. In (I), many kinds of colouring cpds., such as flavin, ferrichrysin, melanoidine, caramel etc., are contained. Heavy metals, such as manganese, copper, zinc, etc., are also contained in (I) and they act a as catalyst for the colouring reaction with light irradiation. By the present method, (I) can be deodourised almost completely.

Examples of (II) are as follows: (1) mixt. of (II) having hydrogen at terminal of functional gps. (III) and (II) having alkali metal at terminal of (III); (2) mixt. of (II) having hydrogen at terminal of (III) and (II) having alkali earth metal at terminal of (III); and (3) (II) having aluminium at terminal of (III). 21.10.77 as 126997. (3pp42)

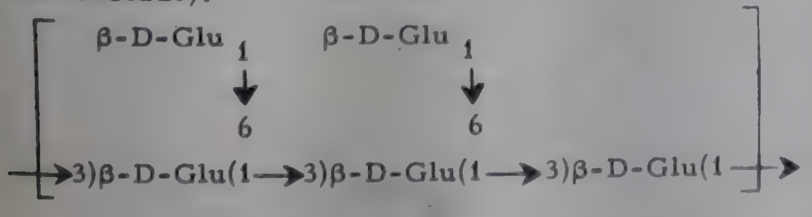
MEIT ★ D16 48135B/26 ★ J5 4063-012

Antitumour beta-1,3-glucan - obtd. from fruit body of fungi of Auricularia

MEITO SANGYO CO KK 27.10.77-JA-128198

A96 B04 (21.05.79) A61k-31/71 C08b-37 C12d-09/04

β-1,3-Glucan is of formula (I) (where Glu is a glucopyranose residue).



$$\left[\begin{array}{ccc} \beta\text{-D-Glu}\;1 & \beta\text{-D-Glu}\;1 & \\ \downarrow & \downarrow & \\ 6 & 6 & \\ \rightarrow 3)\beta\text{-D-Glu}(1\rightarrow & 3)\beta\text{-D-Glu}(1\rightarrow & 3)\beta\text{-D-Glu}(1\rightarrow \end{array}\right] \quad (I)$$

Pref. the intrinsic viscosity (η) of (I) is 0.15-0.25. (I) is obtd. by extracting the fruit body of fungi of Auricularia with an aq. medium, removing the medium-soluble fraction and sepg. out (I). 27.10.77 as 128198. (9pp69)

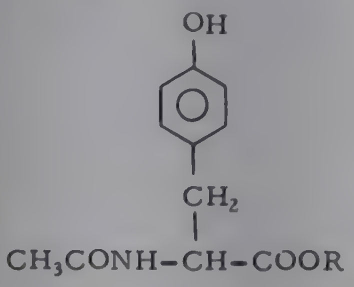
TORI ★ D16 48148B/26 ★ J5 4063-043

Phenyl or naphthyl-acetyl-tyrosine derivs. - used for measuring enzyme activity using hydrolysis and determn. of phenol or naphthol

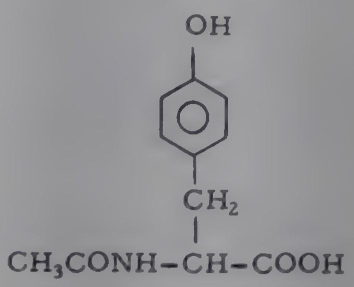
TORII YAKUHIN KK 27.10.77-JA-128872

B05 R16 (21.05.79) C07c-103/46 G01n-33/16

The acetyltyrosine derivs. of formula (I) are produced by dehydration-condensation of acetyltyrosine of formula (II) and phenol or naphthol. In the formulae, R is phenyl or naphthyl.



(I)



(II)

(I), when allowed to stand in contact with an enzyme for a definite period of time are hydrolysed. The amt. of phenol or naphthol liberated is determined so as to measure the activity of the enzyme. (I) act as fine substrates for C_1 esterase or chymotrypsin. 27.10.77 as 128872. (5pp136)

TAIT D16 40945Y/23 = J7 9013-451

Polymeric pigment prepd. from iridoide glycoside contg. substance - and primary amino gp.-contg. substance

TAITO KK 29.10.75-JA-130131

*A97 E24 (31.05.79) *J52053-934 C09b-61*

Pigment compsn. is prepd. by reacting a prim. amino gp. contg. substance with a substance contg. genipine or peniposide which is iridoide glycoside or their related cpd.

Genipine and its analogues obtd. by direct extn. from animal or vegetable or by chemical or enyzmic reaction of geniposide and its related substance, readily bonds to a substance with prim. amino gp. to form a pigment intermediate, which easily polymerises by heat or the influence of oxygen in air to increase the number of conjugation sys-tem and develop colour. The colour developing mechanism varies subject to the kind of raw material, producing condition, polymerisation condition, etc. and pigment compsns. with various colour can be produced.

A blue pigment compsn. obtd. by action of β-glucosidate from a gardenia fruit extract as an iridoide glycoside contg. substance and soybean protein as a prim. amino gp. contg. substance is confirmed to be non-toxic. The compsn is used for dye and pigment. 29.10.75 as 130131, C09b-61/00 (31.5.79) TAITO KK (8pp) (J5 2053934)

✓**RIKA D16 80900A/45 = J7 9013-487**

Fungicide contg. Bacileucine-A or -B or its complex - used to control blast and sheath blight in rice, anthracnose and grey mould of cucumber etc.

RIKAGAKU RES LABS K 11.03.77-JA-026771

*C03 (31.05.79) *J53113-013 A01n-09 C07g-17 C12d-09/20*

Fungicide contains an active component Bacileucine A, Bacileucine B or its complex. The active cpd. is effective in the control of blast of rice, sheath blight of rice, grey mould of cucumber, anthracnose of cucumber, black spot of pear and late blight of grape. The cpd. does not adversely effect the plant and does not afford bad effect in humans body.

The microorganism used is deposited as FERM-P No. 3625. The cpd. is prepd. by culturing Bacileucine-producing strain in a medium. There may be used either solid cultivation or liq. cultivation. For industrial prodn. cultivation under aeration and stirring is conducted. Cultivation is conducted at 20-30°C for 24-168 hrs. 11.3.77 as 026771 A01n-9/00, C07g-17/00, C12d-9/20 (31.5.79) RIKAGAKU RES LABS KK (12pp) (J5 3113013)

KIKK D16 33024V/18 = J7 9013-496

Yeast extract prepn - by adding sodium chloride and ethanol to active yeast, followed by autolysis

KIKKOMAN SHOYU KK 17.10.72-JA-103868

*(D13) (31.05.79) *DT2351-680 A231-01/28*

To active yeast are added table salt in an amt. of 2-10 W/V percent relative to the self-digestible system and ethanol in an amt. of 1-9 W/V percent relative to the same, and the yeast is subjected to self-digestion, whereby yeast extract is obtd. 17. 10. 72 as 103868 A231-1/28 (31. 5. 79) KIKKOMAN SHOYO KK (10pp22) (J4 9062675)

KOBA- D16 74839W/45 = J7 9013-507

Industrial waste gas purification - by passing through cultures of non-sulphur-contg. red bacteria

KOBAYASHI KANKYO KA (KOBA) 23.10.73-JA-118525

*E36 J01 +P34 (31.05.79) *J50069-279 +A611-09 C02b-01/16 C12b-01 C12k-03*

Noxious gases such as CO_x, NO_x and SO_x contained in industrial waste gas can be eliminated by passing the gas through cultures of non-sulphur-contg. red bacteria.

In an example, a noxious gas contg. NO_2 (50 ppm) was generated by using a furnace. The gas was passed, at 10 ml/min. through a culture medium contg. Rhodopseudomonas spheroides suspension 100, sea water 900 ml. KH_2PO_4 0. 2, and yeast ext. 0. 01g. The culture was incubated at 30°C in light, NO_2 was not detected in the gas passed through the medium. 23. 10. 73 as 118525, C12b-1/00, C12k-3/00, A611-9/00, C02b-1/16 (31. 5. 79) KOBAYASHI KANKYO KA (4pp) (J5 0069279)

WARN D16 02291S/02 = J7 9013-508

Composite indicator paper for detection of - nitrate reduction

WARNER LAMBERT PHAR 24.06.69-US-836089

*B04 J04 (31.05.79) *DT2030-720*

HOKA D16 84540V/49 = J7 9013-509

Dried free-flowing alpha-galactosidase mycelium - by treatment in a dry hot air stream, allowing formation of granules

HOKKAIDO SUGAR KK (HOKT) 07.07.73-JA-076124

*(D17) (31.05.79) *BE-817-393 +C07g-07/02 C12k-01*

The hot air stream at 40-350°C and velocity 0. 18-3. 3 m/sec. maintains the temp. of (I) at $< 65°C$ until the moisture content is $<15\%$. (I) is a mycelium derived from a culture of α-galactosidase, e. g. Mortierella, normally kept at $<$ 10°C.

The prod. becomes granular in structure which makes it flow freely and conserves its activity after long periods of storage. 7. 7. 73 as 076124, C12k-1/00, C07g-7/02 (31. 5. 79) HOKKAIDO SUGAR CO. (8pp) (J5 0024486)

✓MEIJ D16 31442T/20 = J7 9013-511

Amylase prepn - for prodn of maltose from starch

MEIJI KK 05.07.71-JA-048773

*E13 (D17) (31.05.79) *NL7114-799 C12d-13*

Starch material, etc. is acted on by amylase of Streptomyces aureofacience, etc. to produce saccharised liq. contg. $\geqslant$ 70% maltose and $\leqslant$ 4% glucose. The liq. is reduced in the presence of Ni catalyst with H_2 and the catalyst removed to give a liq. contg. $\geqslant$ 70% maltitol and $\leqslant$ 5% sorbitol. 5. 7. 71 as 048773, C12d-13/00 (31. 5. 79) MEIJI SEIKA KAISHA (11pp22) (J4 8013596)

ZAID D16 68370T/43 = J7 9013-512

Hypotensive agent dopastin prepn - from bacterial strain bac-125

ZAIDAN HOJIN BISEIB 26.03.71-JA-017293

*B04 (31.05.79) *DT2214-757 +A61k-31/16 C07c-103/12 C12d-13*

Dopastin is an acidic cpd. (pKa 5. 2, C 49. 96%, H 8. 13%, N 19. 33%, O 22. 67%, m. pt. 116-9°C), produced by cultivating the strain BAC-125 (ATCC 21774) (a bacterium closely related to the genus Pseudomonas) or a dopastin-producing mutant or variant thereof under aerobic conditions in a culture medium contg. C and N sources so as to produce and accumulate dopastin in the culture broth, and recovering dopastin.

Dopastin and its salts have low toxicity, inhibit tyrosine hydroxylase and dopamine 3-hydroxylase, and strongly inhibit the biosynthesis of norepinephrine. 26. 3. 71 as 017293

HOJIN BISEIBUTSU KAGAKU KENKYU KAI (8pp) (J4 7029593)

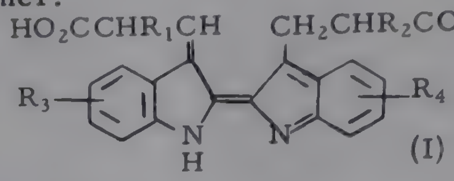
AMAN D16 26499W/16 = J7 9013-

Novel pigment Red W59 - extd. from Penicillum purpurogen culture medium with org. solvents

AMANO PHARM KK (AMAO) 11.01.73-JA-005514

*E23 (31.05.79) *J49093-587 +C07d-209/42 C12d-13*

A novel pigment Red W59 of formula (I), (I, R_1 is NH_2, O
R_2 is OH, NH_2, R_3 is OCH_2CO_2H, $O(CH_2)_5Me$, R_4 is $O(CH_2$
Me, OCH_2CO_2H) was obtd. by culturing Penicillium purpu
-genum and extg. from culture broth with BuOH, EtOAc,
ether.



(I)

In an example, P
purpurogenum was c
-ured in 4 l. medium
contg. glucose 1, (NH
HPO_4 0. 15, KH_2PO_4
$MgSO_4$, $7H_2O$ 0. 05, a
L-tryptophan 1% at 30° for 80 hrs. (I) was extd. with Bu
After filtration and drying, 200 ml water was added and
pH was adjusted to 8. 0 with NaOH. The NaOH soln. was
extd. with ether to give 1 g (I). 11. 1. 73 as 005514, C12d-13/00, C07d-209/42 (31. 5. 79) AMANO PHARM CO. LTD;
(7pp) (J4 9093587)

SNAM D16 72301T/45 = J7 9013-5

Hydrolysis or synthesis of antibiotics - using an enzyme incorporat in a polymer fibre

SNAMPROGETTI SPA 28.04.71-IT-023777

*A96 B02 (A18 A23) (31.05.79) *BE-782-646 C07g-07/02 C12 09/06*

In the title process a cephalosporin or penicillin is hydr
lysed to 7-ACA or 6-APA or synthesised therefrom by th
use of an enzyme incorporated in a polymer fibre. The e
zyme prod. is stable, has a long life and may be used mo
than once. The enzyme is dispersed in the polymer and t
mixt. formed into a filament, the enzyme being formed in
cavities in the filament and coated with a thin film. Thus
enzyme from E. Coli is emulsified with cellulose triaceta
formed into a filament and the enzyme used to prepare 6
APA from penicillin-G, using a column of the fibrous en
zyme material. 26. 4. 72 as 042150 (clg. 28. 4. 71-IT-0237
C12d-9/06, C07g-7/02 (31. 5. 79) SNAM PROGETTI SPA
(5pp) (J4 7039694)

TOCH/ D16 75453T/47 = J7 9013-5

Organophosphorus cpd with physiological activity - prepd fro corresp phosphorus cpd and a fructose diphosphate

TOCHIKURA T (TOC /) 09.03.71-JA-012198

*B02 E11 (B03 D13) (31.05.79) *J47023-597 +C12d-13*

Prodn. of physiologically active organophosphoric acid cp
by reacting a precursor corresp. to the required physiolo
ically active organophosphoric acid cpd. with fructose-1,
diphosphate in the presence of a transphosphorylase and
high concn. of inorg. phosphoric acid.

Provides cpds. e. g. di and triphosphates of uridine, c
tidine, adenosine and guanosine and glucosamine-6-phos
phate, useful as medicines or enriching agents for food,
flavours. The enzyme effecting the reaction can be deriv
from Saccharomyces cerevisiae ATCC 15248, Streptomyc
griseus ATCC 10137, Arthrobacter oxydans ATCC 14358
9. 3. 71 as 012198, C12d-13/00 (31. 5. 79) TOCHIKURA T.
(4pp) (J4 7023597)

KAYA D16 09193W/06 = J7 9013-51

Fraction Ma of neocarizinostatine - as an antimicrobial an antitumour agent

KAYAKU ANTIBIOTIC RES 11.09.73-JA-102486

*B04 (31.05.79) *BE-819-520 A61k-35/74 C07g-11 C12d-09/14*

A fraction Ma of neocarzinostatine (I) has the following p
-perties:- C = 47-91;, H = 6. 63%, N = 14. 56%, S = 1. 26
0. 29. 64%, mol. wt. 13200, amino acids, aspartic acid 11,
thiconine 11 or 12, serine 10, glutamic acid 5, proline 2,
-cine 14, alanine 16, ½ aptene 4, valene 11, methionine
isoleucine 1, Eucine 6, tyrosine 1, phenylalanine 5, his
idine 0, tryptophane 3, lysine 1 and arginine 3, m. pt.
276PC $[\alpha]_D^{20}$ = -87°C (c = 1, H_2O) U. V. spectra max. ab
sorption mμ $E^{1\%}_{cm}$ 274, 23. 13 (water), 274, 22. 68 (0. 1

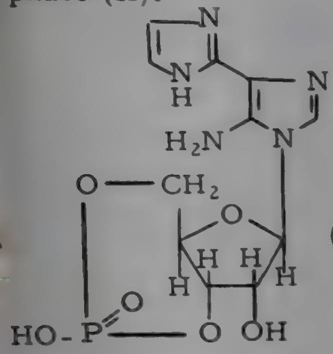
7.52, and 340, 7.66 (water) 289, 16.98 and 340, 7.46 (0.1 N HCl), 289, 18.15 and 342, 5.83 (0.1N NaOH), easily soluble in water, slightly soluble in MeOH, EtOH, and Me_2CO, nsoluble in other organic solvents, positive with biuret, Folin, phenol, peptide, and ninhydrin reactions and negative with Molisch, anthrone, phenol sulphuric acid, ferric chloride, and molybdenum blue (1) is an antirucrobial and antitumour agent and may be prepd. by culture of Streptomyces arzinostatiano sub-species F-41, Kwoya, ATCC 21894. 11.9.73 as 102486, C12d-9/14, A61k-35/74, C07g-11/00 (31.5.79) KAYAKU ANTIBIOTIC RES. CO. (19pp)(J50052289)

KIKK D16 24613Y/14 =J7 9014-119

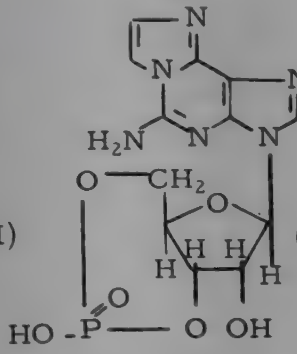
Amino-adenosine cyclic phosphates - prepd. from imidazole derivs. and cyanogen bromide

KIKKOMAN SHOYU KK 06.08.75-JA-095054
*B02 (05.06.79) *J52025-798 C07h-19/04*

3-β-D-(3', 5'-Cyclic phospho)ribofuranosyl-4-amino-5-(imidazol-2-yl)imidazole (I) is reacted with cyanogen bromide to obtain 1, N^6-etheno-2-aminoadenosine-3', 5'-cyclic phosphate (II).



(I)



(II)

The reaction is effected in a buffer soln or water at 5-50°C for 3 hrs -7 days depending on reaction temp. and solvent. Reaction can be performed at pH 3-10. pref. 8-10. When water is used the starting is pref. in the form of an organic base salt such as triethylammonium salt. It is also pref. to effect the reaction in the presence of 0.5-5 moles of an amine. The molar ratio of cyanogen bromide to the starting material is 1-5. (II) can be isolated and purified in usual manner.

(II) is useful as a biochemical reagent or pharmaceutical 6.8.75 as 095054. C07h-19/04 (5.6.79) KIKKOMAN SHOYU KK (4pp) (J5 2025798)

AJIN ★ D16 48311B/26 ★J7 9014-176

Beer yeast extract prepn. - involves adjusting potassium ion concn. of diluted beer residue to enhance enzyme activity

AJINOMOTO KK (SAPB) 08.05.74-JA-050828
(05.06.79) A231-01/28

Beer residue obtd. in prepn. of beer is diluted with water, and potassium ion is added so that the potassium ion concn. is 0.5 times the sodium ion concn. whereby self-digestion and decompsn. by enzymes takes place the insolubles are removed, and the prod. is heated. Thus a beer yeast extract is obtd. 8.5.74 as 050828, A231-1/28 (5.6.79) AJINOMOTO KK, SAPPORO BREWERIES (4pp22) (J5 0142763)

MITD D16 60151Y/34 =J7 9014-188

Fixed glucose isomerase prodn. - from a fungus body of Streptomyces microorganism contg. glucose isomerase

MITSUI SUGAR KK 27.12.75-JA-155881
*(05.06.79) *J52082-783 C07g-07/02 +C12d-13 C12k-01*

The method comprises freezing a fungus body of Streptomyces microorganism contg. glucose isomerase, defreezing it, dehydrating it in acetone, sepg. hydrous acetone from it, crushing the obtd. lumps of fungus body, moulding the crushed prod. into particles of flakes, suspending them in acetone, and treating them with glutaraldehyde.

A stable prod. is obtd. with high enzymatic activity. The process can be applied industrially for continuous operation using a packed column with prolonged life.

Pref. microorganism is Streptomyces phoeochromogenes (FERM P-221) St. fradial (FERM P-220), St. albus (ATCC-21132) St. achromogenes (ATCC-12767) St. echinatus (ATCC-21933), St. wedmorensis (ATCC-21230), St. flovovirens (ATCC-3320) or St. olivochromogenes (ATCC-21114). In the pretreatment the cell membrane is broken, and lipid-like dehydrated substance adhered to the glucose isomerase is removed with acetone. Thus dehydrated fungus bodies are mutually adhered and formed into solidified lumps. 27.12.75 as 155881, C12k-1/00, C07g-7/02, C12d-13/00,

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SEKI/ ★ D16 48313B/26 ★J7 9014-189

Photoreducible or nutrient Chlorella or Cenedesmus cultivation - in medium contg. slime bacteria e.g. Bacillus microorganisms

SEKINE K 20.09.68-JA-068079
(05.06.79) C12b-03/12

Slime bacteria is cultivated in a medium contg. organic substance, the slime bacteria is removed the viscosity is adjusted and then in thus obtd. medium is cultivated photoreducible or nutrient chlorella or cenedesmus, whereby a large amt. of chlorella or cenedesmus can be obtd.

The slime bacteria includes microorganism belonging to the genus Chondromyces, Mixococus, Sporocytophage, Bacillus, Aerobacter, Leuconostoc, and the like. The organic substance includes potato, wasted molasses, etc. The cultivation is conducted at 20-30°C under aerobic conditions for 7-15 days. The cultivation of chlorella or cenedesmus is conducted under aerobic conditions at 27-37°C for 3-4 days at concn. of chlorella, etc. of 1/5 to 1/10 of the culture medium. The prod. can be obtd. in high yield. 20.9.68 as 068079, C12b-3/1 (5.6.79) SEKINE K (3pp22)

ABBO D16 05275X/03 =J7 9014-190

Urokinase prodn from a contiguous live kidney cell culture - whose nutrient contains glycine

ABBOTT LABORATORIES 31.03.75-US-564966
*B04 (05.06.79) *US3930-945 C12d-13/10*

kidney cells in an aq. nutrient contg. 0.3-1.2 pts. wt. glycine per 100 pts. vol. nutrient, in addn. to the usual cell culture maintenance additives.

The urokinase is a fibrinolytic enzyme used for human blood clot treatment. Inclusion of the glycine in the(kidney) cell culture increases the yield with no redn. in quality. 31.10.75 as 130577 (clg. 31.3.75-US-564966) C12d-13/10 (5.6.79) ABBOTT LABORATORIES (4pp) (J5 1128490)

TORA D16 12894A/07 =J7 9014-192

Enzymatic prodn. of d-tartaric acid - from cis-epoxy-succinic acid using e.g. Achromobacter tartarogenes

TORAY INDS INC 30.04.74-JA-047526
*E17 (05.06.79) *J50140-684 +C12d-01/02*

d-Tartaric acid (I) was produced from cis-epoxy-succinic acid (II) by reaction of I-epoxydase. In an example Achromobacter tartarogenes (FERM-P 2508) was cultured with shaking at 26° for 40 hrs. on 3 l. medium (pH 7.2) contg. Na-II 0.5, $(NH_4)_2SO_4$ 0.2, KH_2PO_4 0.14, $Na_2HPO_4 12H_2O$ 0.31, $MgSO_4 \cdot 7H_2O$ 0.05 and yeast extract 0.02%. The cells were suspended in 200 ml. of 0.01 M Tris-HCl buffer (pH 7.6). The suspension (100 ml) was subjected to French Press and then sonicated.

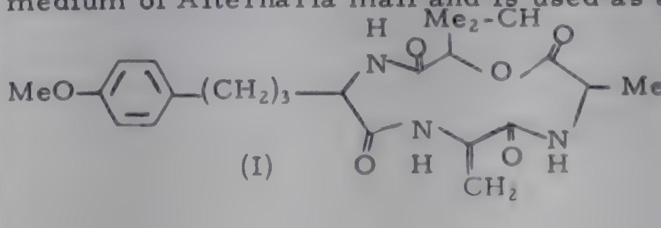
The enzyme was obtd. from the supernatant by $(NH_4)_2SO_4$ fractionation and dissolved in 46 ml of 0.01 M Tris-HCl buffer (pH 7.6) and dialysed against the same buffer overnight. Reaction mixt. (50 ml) contg. the enzyme soln. (13.2 mg protein/ml. 167 units), water 33, and 20% Na-II 50 ml was rafted at 40° for 24 hrs. To the mixt. 14 ml. of 4.5 M $CaCl_2$ was added to ppt. Ca-I, The Ca-I was washed with water and suspended in a small amt. of water, added with 150 ml. Amberlite IR 120 B(H^+), stirred at room temp. until the soln. became transparent. The filtrate was conc. to dryness, added with ~ 50 ml. of 99.5% EtOH, and evapd. after the insol. substances were removed. I was obtd. at 7.77g with 91.2% yield, 30.4.74 as 047526, C12d-1/02 (5.6.79) TORAY INDS. INC. (9pp) (J5 0140684)

MITU D16 76388Y/43 =J7 9014-193

High activity fungicidal compsn. - contg. cyclic peptide sepd. from Alternaria mali culture medium

MITSUBISHI CHEM IND KK 13.03.74-JA-028842
*C02 (05.06.79) *J50123-881 +A01n-09/20 C07d-255/02 C12d-09/04 C12d-13*

A cyclic peptide of formula (I) is isolated from the culture medium of Alternaria mali and is used as a fungicide.



(I)

In an example A. mali was cultured at 30° in 20 l. Richard's medium (sugar 5, KNO_3 1, KH_2PO_4 0.5

and $MgSO_4$ 0.25%) at pH 4.5 for 16-18 days. Solid materials were filtered out, the filtrate was treated with 2 l. $CHCl_3$ and the $CHCl_3$ phase was washed with H_2O and satd. NaCl soln. dried with anhydrous Na_2SO_4 and condensed to obtain a 300 mg red semisolid material. This prod. was purified by thin-layer chromatography to obtain (I) as white cryst. (30 mg). The min. inhibitory concn. of I was 10-200 µg/ml against Piricularia gryzae Fusarium oxysporum, A. kikuchiana, A. mali and Colletotrichum lagenarium. 13.3.74 as 028842, C12d-13/00, 9/04, A01n-9/20 C07d-255/02 (5.6.79) MITSUBISHI CHEM. IND. KK (8pp) (J5 0123881)

KYOW D16 76390Y/43 =J7 9014-194

Triazole ribotide prodn. - by culturing Brevibacterium etc. on a medium contg. triazole derivs.

KYOWA FERMENTATION KK 15.03.74-JA-029002
*B03 (05.06.79) *J50123-883 A61k-31/41 C07d-249/08 C12d-13*

Triazole ribotides are produced by culturing Brevibacterium, Corynebacterium, Arthrobacter, or Micrococcus in a medium contg. triazole derivs.

In an example, B. ammoniagenes ATCC 6872 was cultured aerobically at 30°C for 48 hr. in a medium contg. glucose 100, urea 6, KH_2PO_4 10, K_2HPO_4 10, $MgSO_4$ 10, $CaCl_2$ 0.1, yeast ext. 10 g/l. and biotin 30 µg/l. (pH 8.0). To the culture medium 3 mg 1,2,4-triazolo-3-carboxamide/ml was added and the culture was incubated for an addnl. 48 hr The cultured medium contained 1.26 mg 1-β-o-ribofuranosyl-1,2,4-triazol-3-carboxamide-5'-phosphate. 15.3.74 as 029002, C12d-13/00, A61k-31/44, C07d-249/08 (5.6.79) KYOWA HAKKO KOGYO (6pp) (J5 0123883)

TANA D16 82375W/50 =J7 9014-195

Urocanic acid prodn - by Serratia marcescens

TANABE PHARMACEUTICAL KK 19.12.73-JA-142804
*E13 (05.06.79) *J50089-594 +C12d-13*

Urocanic acid is produced by histidine analog-resistant S. marcescens.

In an example, 2-methylhistidine- and 1,2,4-triazole-3-alanine-double resistant and urocanase-deficient S. marcescans 485 ud 4 was cultured aerobically at 30° for 72 hr. in a medium contg. glucose 10, dextran 5, urea 2, NH_4Cl 1, corn steep liquor 1, KH_2PO_4 0.1, $MgSO_4$ 0.05, $FeSO_4$ 0.0002, and $CaCO_3$ 3%. The culture contained 10.2 mg. urocanic acid/ml. 19.12.73 as 142804, C12d-13/00 (5.6.79) TANABE PHARMACEUTICAL KK (3pp)(J50089594)

KOYA/ D16 78096Y/44 =J7 9014-197

Antibiotic TS-0822 - produced by culturing a Streptomyces organism

KOYAMA Y 01.04.74-JA-036748
*B04 (05.06.79) *J50126-893 +A61k-35/74 C07g-11 C12d-09/14*

Antibiotic TS-0822 is produced by culturing Streptomyces. In an example S. eurocidicus variety asterocidicus was cultured aerobically at 27° for 72 hrs. in a medium contg. glucose 29 peptone 0.5, NaCl 0.5, $CaCl_2$ 0.35, and NaOAc 0.1, (pH 7.2). The cell-free culture medium contained 50 µg of the antibiotic TS-0822/ml. 1.4.74 as 036748, C12d-9/14, A61k-35/74, C07g-11/00 (5.6.79) KOYAMA Y (9pp) (J5 0126893)

GRAI D16 27923B/15 =NL 7811-993

Prepn. of roasted non-malted barley - by controlled heating, used to replace part of the malt in beer brewing

GRAIN PROCESSING CORP 08.09.78-US-940719 (09.12.77-US-859124)
*+P41 (12.06.79) *BE-872-607 +C12c-05/02*

The barley, suitable to replace malt in brewing in a steeping used for prepg. a non-distilled fermented drink, is prepd. by heating non-malted barley of ⩾12% protein content to a temp. sufficient to expand it such that a determined volume of barley before heating has about 1.4-1.75 times the weight of the same volume after heating.

The process is esp. for beer mfr. The prod. can replace ⩽25% of the relatively costly malt, without adverse effect on the brewing process or the beer quality. 8.12.78 as 011993. (22pp597)

ROGG D16 85013W/52 =NL-16

Formation of aerosol prods - using microbiological fermentati produce propellant in situ

ROGER & GALLET 28.08.74-FR-029386
*A97 B07 +P34 Q34 (15.06.79) *BE-831-732 B65d-83/14 03/30 C12b-01*

Aerosol prods. are mfd. by prepg. a water based mix inoculating the mixt. with a microorganism and allowi the organism to ferment in the absence of O_2 to genera CO_2.

Sugar is added as necessary to feed the microorgan ms and any agents in the prod. which might adversely affect the fermentation are not added until the ferment is complete. The prod. may also be neutralised in the event that the fermentation has created acid by the add a weak neutralising agent.

The process is carried out with the aid of a pressu tube in which the fermentation takes place and by mean which the aerosol is filled. 22.8.75 as 009947. (9pp1

HAYB D16 05456R/04 =NL-160

Long-and short - chain amylose prodn from starch

HAYASHIBARA CO 30.04.68-JA-029243
*(15.06.79) *DT1922-295 C13l-01/10*

Dextrins are prepd. by (a) gelatinising starch and cooli (b) converting with an α-1,6-glucosidase, (c) sepg. amy ose from the starch hydrolysate at 40-90°C, (d) cooling the liq. phase to ⩾5°C, and (e) sepg. the dextrins. Bo amylose and dextrins are obtd. separately.

After stage (b) either (i) 1-butanol or $MgSO_4$ is adde and the mixt. is heated to 65-95°C and then cooled to 4 during 1-30 hrs., or (ii) the mixt. is heated to 70-90°C and then cooled to 40°C under ultrasonic vibration with frequency of 12-30 kHz. The amylose is then sepd. 26.4.69 as 006490. (5pp510)

WIEB- ★ D16 B/26 ★OE 7803-

Waste composting installation

WIENER BRUCKENBAU 16.05.78-OE-003521
(15.06.79) C05f-09/02

BIOO= ★ D16 48532B/26 ★SU-621-

Acid proteinase enzyme immobilisation on silica carrier - incluc modification of carrier with amino organo-silane and activati with cyanuric chloride before treating with enzyme

BIO-ORG CHEM INST (PHYS=) 15.07.76-SU-385116
B04 J04 (22.07.78) C07g-07/02

Acid proteinase enzymes are immobilised on silica-con carrier modified with amino-organo-silane. The prod. is used in food, chemical microbiological ind. and also in laboratory and medical practice. The process has t -stages.

The fixed enzyme specific activity and its bond stren are increased if the modified carrier is first activated with cyanuric chloride in organic solvent and then covalently bonded with enzyme.

The immobilised enzyme resist hydrolysis in neutral media.

Yanishpolskii, V.V., Tertykh, V.A., Chuiko, A.A. et al. Bul. 32/30.8.78. 15.7.76. as 385116 (2pp938)

LEFO= ★ D16 48573B/26 ★SU-621-72

Fermenter foam breaker - has shaft carrying cone with articulate blades above housing inlet

LENGD FOOD IND RES 06.12.76-SU-427560
(D14) (02.08.78) C12b-01/18

The fermenter foam breaker in food and microbiological ind. improves efficiency with a cone below the housing inlet. The base of the cone is down, and it carries articulated blades, while the steam inlet connector is mounted on a shaft above the cone. The bottom part of the shaft is hollow and features holes for steam admissio as well as having holes for steam sparging over the foan

The rotation of the shaft with blades and cone ensures a horizontal position for the blades to break up the foam. Final destruction of the foam is controlled by steam sparging.

Metkin, V.P., Khrychev, G.A., Smirnov, V.A. et al. Bul. 32/30.8.78. 6.12.76. as 427560

KIFO= ★ D16 48574B/26 ★SU -621-723

Ethyl alcohol prodn. from starch-contg. material - includes saccharification and fermentation with yeasts in presence of sodium sulphite, to suppress melanoidin reaction and reduce losses

KIEV FOOD IND TECHN 01.03.77-SU-457010

E17 (02.08.78) C12c-11/08

Ethyl alcohol is produced from a starch-contg. material by comminuting the starting material, mixing it with water, cooking under press., saccharifying and fermenting the wort with yeasts. This method is improved by adding to the mixt. of the starting material and water 0.05-0.35 wt.% (w.r.t. the total mass) Na_2SO_3. The loss of the fermenting material is reduced and the alcohol yield is increased. This is effected by blocking the melanoidin reaction by addition of Na_2SO_3.
Shvets, V.N. and Shashenkov, E.F. Bul. 32/30.8.78. 1.3.77. 457010 (2pp70)

ASMI= ★ D16 48575B/26 ★SU -621-724

Lipase prodn. from fungus Oospora fragans Berkh - using nutrient media contg. soya flour and saccharose as carbon source

AS USSR MICROBIOL 03.03.77-SU-459951

B04 (D13 D18) (02.08.78) C12d-13/10

Lipase, used in medicine, food industry and leather prodn. is produced by cultivating a fungus in a nutritive medium contg. sources of carbon, nitrogen, phosphorus and mineral salts, subsequent extraction of the enzyme from the culture liquid, and purification. The activity of the enzyme is increased and its range is extended to pH 6-9 and temp. 25-45°C by using as a producer the fungus Oospora fragrans Berkh, pref.its strain BKMF-2024. The carbon source is pref. soya flour and saccharose. Ruban, E.L., Kazakov, G.A., Ksandopolo, G.B. et al. Bul. 32/30.8.78. 3.3.77. as 459951 (2pp70)

ZAID D16 82763R/44 =SU -622-414

Novel negamcine antibiotic

ZAIDIN HOJIN BISEIBUTSU 08.05.69-JA-034827

B05 C03 *(24.07.78) *BE-750-096 +C12d-09/14*

Negamycine (I) is isolated from aerobic cultures of Streptomyces purpeofuscus ATCC 21470. (I) has probable formula: $NH_2.CH_2.CHOH.CH_2.CHNH_2.CH_2.CO.NH.NCH_3.CH_2.COOH$ and is sol. in H_2O but insol. in CH_3OH, C_2H_5OH. C_4H_9OH, esters, $CHCl_3$ and benzene. It has $[\alpha]_D^{29} = +2.5°$ (C = 2, H_2O). Antibiotic is active against Pseudomonas, Salmonella, Shigella, Klebsiella, E. coli and various species of Staphylococcus. Umezawa, H., Maeda, K., Konda, S. Bul. 32/30.8.78. 8.5.70. as 435767 (5pp)

BIOL- ★ D16 B/26 ★SW 7712-416

Rubbish composting appts. with rectangular composting container - has rotary screws moving backwards and forwards between opposite walls at bottom of container

BIOLOGISK AVFALLSHA 03.11.77-SW-012416

(11.06.79) C05f-09/02

The tubbish enters the top of a container and passes down through successive composting zones for removal at the bottom of the container as ready-to-use compost, according to SW 7708243.

The container is rectangular. One or more rotary screws are situated near the bottom of the container. The scres travel backwards and forwards between two sides of the container. 3.11.77 as 012416 (-pp1407)

MONS ★ D16 48909B/26 ★US 4157-960

Improving selectivity for fluid separation of membranes - pref. of polysulphone, by storing membrane in aq. medium to provide microorganism growths

MONSANTO CO 30.11.77-US-855852

A88 J01 (A26) (12.06.79) B01d-13

The selectivity for fluid separation of a membrane resistant to biodegradation is improved by storing the membrane in an aq. medium essentially free of a bacteriostat for a time sufficient to provide microorganism growths. The membrane has a barrier layer with pores that adversely affect the selectivity of fluid sepn. Pref. the aq. medium is at 10-40°C and the membrane is stored for ≥1 day.

Used e.g. for gas separations. Suitable membranes are of styrene polymers, polyamides,polyimides, PVC, polybenzobenzimidazole, polyurethanes polyesters, pref. a polysulphone with repeat units / $R-SO_2-R'$/ (where R and R' are 1-40C aliphatic or aromatic hydrocarbyl gps. and the polymer has av. m.wt. ≥10000. 30.11.77 as 855852 (10pp966).

DUNC D16 29077W/18 =US 4158-054

Vaccines from apyretogenic virus fragments - after splitting the virus with hemolytic surfactant in an ultracentrifuge

DUNCAN FLOCKHART CO 18.10.73-GB-048685

*B04 (12.06.79) *BE-821-175 A61k-39/12*

Prepn. of a virus sub-unit vaccine derived from an ether-sensitive virus and being free from pyrogens, virus nucleic acids and unwanted antigenic material is provided.

Process comprises introducing a liq. medium contg. the inactivated whole virus into a continuous loading zonal ultracentrifuge provided with a density gradient soln. contg.a haemolytic surfactant, so that the virions enter the density gradient and are split by the surfactant and the antigenic sub-units are banded isopyenically, the fraction(s) contg. the protective antigen sub-units subsequently being recovered.

All ether-sensitive viruses can be used, esp. influenza virus. 21.2.78 as 879386 (+ 17.10.74, 27.4.76-US-515467, 680756) (6pp910).

See Also

D13 BE 872888
D13 DT 2756739
D13 DT 2757366
D13 GB 1547911
D13 J7 9014191
D13 US 4157984
D14 DT 2848446
D17 DS 1767912
D17 J7 9014187
D25 J5 4063107

D17: SUGAR; STARCH

HAYB D17 32459S/19 =DS 1767-912

Prepn of high purity maltose

HAYASHIBARA CO 30.06.67-JA-041581

*E13 (D16) (21.06.79) *GB1232-645 C12d-13/02*

Highly pure maltose is obtd. from starch by liquefying the starch and then saccharifying. The liquified starch is saccharified at pH6 with beta-amylase, opt. together with alpha-amylase and one or more alpha-1,6-glucosidases, esp. pullulanase or iso-amylase. The presence of the glucosidase increases the yield of maltose. 1.7.68 as 767912 (6pp68)

BOSC- ★ D17 47409B/26 ★DT 2852-873

Continuous massecuite screening centrifuge - with stepped conical bowl sections and periodically lowered closure disc

BOSCO IND MEC SPA 16.12.77-IT-052251

P41 (21.06.79) B04b-01/12 B04b-15/12 C13f-01/10

A centrifuge for use e.g. in the continuous treatment of massecuite, has an upper bowl part with a truncated cone shape, and a lower similar part with a greater cone angle. The massecuite is charged to the top of the first part and outlet holes on its base discharge the syrup. Wash water and syrup leave through openings. The sugar crystals are expelled periodically by lowering a closure disc.

This eliminates the problems of filtrability and breakup of sugar crystals in continuous centrifuges, without necessitating the use of complex equipment. 7.12.78 as

INGR- ★ D17 47612B/26 ★GB 2010-325
Crystallisation of sugar from supersaturated solns. - by spraying at high temp. into air stream
INGREDIENT TECHN CO 19.12.77-US-862021
(27.06.79) C13f-01/02

In a method for crystallising sugar (I) from a super satd. syrup which has total solids content $\not<$ 75 wt.% (I) content $\not<$ 85 wt.% of the total solids), the syrup is sprayed at $>$250°C as droplets (size 50-500 μ) into a flowing gas stream at $>$ 200 °C. The resulting mixt. of droplets and crystallised solid (I) particles is removed from the spray zone by pneumatic transport in the gas stream.

The simple method uses simple equipment, and gives (I) as bead-like agglomerates which are free-flowing and non-caking. In addn., seed particles are not required. 7.12.78 as 7047573 (5pp478)

DAAG ★ D17 48309B/26 ★J7 9014-171
Prepn. of sugar contg. granular material - by fluidising powdery sugar, spraying with water or aq. soln. granulating and drying
DAINIPPON SEITO KK 28.04.70-JA-035953
(05.06.79) C13f-03

Powdery sugar or mixed powder contg. powdery sugar is fluidised by hot air blowing, and fine droplets of water or aq. soln. are sprayed over the mixed powder in such an amt that the water added is 6-40% of the powder wt. Coagulation and granulation under drying are effected. Simultaneously, followed by further drying. 28.4.70 as 035953, C13f-3/00 (5.6.79) DAINIHON SEITO KK (5pp22)

NAFO- D17 05408Y/03 =J7 9014-187
Immobilizing glucose isomerase in microbial cells - by dipping the cells in citric acid solns.
NAT FOOD RES INST 02.10.75-JA-118262
*E13 (D16) (05.06.79) *US4001-082 C12k-01 +C07g-07/02*

Glucose is isomerised to fructose by contacting an aq. soln. of glucose with a microbial cell contg. immobilised glucose isomerase. The glucose isomerase is immobilised by dipping the microorganism in an aq. soln. of citric acid or its Li, Na, K, Mg, Co_2 or Ca salt.

Treated microbial cells can be used repeatedly without losing significant quantities of glucose isomerase, Reaction times are significantly reduced and the microbial cells may be used in batch- or continuous-type operations.

In an example, cells of Actinomyces are dipped in various citric acid solns. and the enzyme activity determined. 2.10.75 as 118262, C12k-1/00, C07g-7/02 (5.6.79) NAT FOOD RES. INST. (3pp) (J5 2044285)

RAFT D17 76356R/42 =NL-160-493
Counter current extraction appts - for extracting the soluble component from a solid using a liquid solvent
RAFFINERIE TIRLEMONTOISE 14.02.69-BE-070061 (23.02.68-BE-054961)
*J01 (15.06.79) *DL--75-065 B01d-11/02*

Soluble components are extracted from a solid material by means of a liq. which is passed through a drum in the opposite direction to that of the solid material. The drum is mounted on a horizontal rotating axis and is divided into compartments by transverse walls. The walls have slots which are linked wall-to-wall by plates which for scroll type feeders connecting the solid feed at one end with the liq. feed at the other.

The arrangement within the drum for the sepn. of th solid material from the liq. is such that the capacity o the drum is unrestricted. 23.2.69 as 002814. (18pp13

RAFT D17 95748R/51 =NL-160-
Saccharose recovery from sugar refinery - molasses
RAFFINERIE TIRLEMONTOISE 24.06.70-BE-752442 (08.07.69-735802)
*(15.06.79) *BE-752-442 C13j-01/04*

In the continuous processing of sugar molasses by pptn. the sugar in the molasses cooled to $<$15°C by means of lime, with formation of Ca saccharate, the molasses is first diluted with water and/or the filtrate from the Ca saccharate ppte. and 1 vol. of the dil. molasses is mixe with 3-7 vols. of recycled lime-treated molasses in whi a Ca saccharate ppte. has already formed. The lime is fed in countercurrent to the molasses feed and is forced back by stirring in the direction of the feed position of t recycled, lime-treated molasses, so that an alkali grad ent arises in the vessel from the lime feed position to th feed position of the recycled, lime-treated molasses. Pptn. takes place in 1 treatment phase.

The appts. is simpler and the end prod. is obtd. in better yield and better quality. The process is less affe ed by the quality and the fineness of the lime powder, an the dilution of the initial molasses. Pptn. is more uniform and the pptd. particles are larger; filtration is therefore more rapid. Less lime is needed. The ratio by vol. of dil. molasses:lime-treated molasses is pref. 1:4-5. The amt. of lime is 70-130 (100-130) g./100 g. of sucrose in the molasses. Unslaked lime may be partly (50-60%) replaced by milk of lime. 4.7.70 as 009938. (9pp510)

HAYB D17 15411R/10 =NL-160-6
Preparation of high mol wt amylose
HAYASHIBARA CO 03.09.68-JA-063172
*(15.06.79) *NL6913-297 C13l-01/08*

Amylose with a degree of polymerisation $\not<$ 700 is obtd. from starch contg. $>$ 50% amylose by (a) gelatinising the starch and cooling, (b) converting with an α-1,6-glucosid ase, and (c) sepg. the amylose from the starch hydrolysate at 40-90°C. A relatively large amt. of amylose is obtd. Corn starch may be used as starting material.

The prod. is a very pure amylose, with a linear structure in which there is no branching. 1.9.69 as 013297. (3pp510)

See Also

D16 J7 9013509 D16 J7 9013511 D21 J5 4062328

D18: SKINS; HIDES; LEATHER; TOBACCO

AMMA D18 38990U/28 =DS 2143-089
Tobacco leaf inspection - for cigar wrapper
AMF INC 04.09.70-US-069601
*P15 (21.06.79) *GB1323-236 A24c-01/04*

A machine for the automatic check of a tobacco leaf for suitability as a wrapper for cigars consists of a recess along the wall of a vacuum chamber, which corresponds to the contour of a punched wrapper leaf. The recess is subdivided into several (five) sections by cross partitions and each section is connected by a hole to the vacuum chamber.

Pressure-sensitive pickups are connected to each section to measure the pressure in them when a tobacco leaf is applied across the whole recess. This indicates clearly which part of the leaf contains holes or pores to make it unfit for use as a cigar wrapper. 27.8.71 as 143089(9pp)

WURT- ★ D18 47342B/26 ★DT 2756-425
Leather brushing machine - with gap between work plate and brushing roll adjustable by power cylinder
WURTT PELZMASCH POH 17.12.77-DT-756425
(21.06.79) C14b-01/52

A brushing machine for the treatment of leather, specially the leather side of hides, includes a horizontal roll with brushes arranged in the longitudinal direction. A hinged workplate below and parallel to this roll can be moved by power cylinder to exert an adjustable pressure and to orm an adjustable intake and treatment gap.

This imparts to hides (sheep skins) a velour-like finish on the leather side. It improves the pliability and the surface grip and gives the surface a velvety appearance. 17.12.77 as 756425 (12pp39)

PLTD ★ D18 47620B/26 ★GB 2010-348

Filter material for cigarette filter - comprises shaped interstitial body of multi-fold continuous thermoplastic filaments

PLASTICISERS LTD 27.11.78-GB-046096 (27.08.77-GB-036089)

A88 F02 J01 (A17) (27.06.79) D02g-01/12 D04h-03/07

Filter material comprises an air pervious shaped interstitial body formed of multifold continuous filaments of a synthetic thermoplastic, pref. polypropylene. The shape of the body is maintained by joining the filaments to themselves or each other at intersections of adjacent lengths of the multifolded filaments throught the length of the body.

The filter material is produced by feeding continuous filaments into a coiled tension spring where they become folded to form a plug. The temp. within the spring is controlled to set the filaments in a folded state and effect bonding at the intersection of adjacent folded lengths. 27.11.78 as 046096(5pp67)

NISB ★ D18 48052B/26 ★J5 4062-336

Stable flavouring component for tobacco - comprises reaction prod. of zirconium and flavour cpd. with oxygen-contg. functional gp.

JAPAN TOBACCO & SALT PUB 25.10.77-JA-127200

E32 P15 (19.05.79) A01n-17/04 A24b-03/12 A61k-07/46

Flavour comprises the reaction prod. of Zr and a flavour cpd. with an O-contg. functional radical in the molecule.

The taste of tobacco leaves of low quality can be improved. The Zr stabilises the volatile flavour. 25.10.77 as 127200. (8pp42)

GLAT- ★ D18 B/26 ★J5 4062-400

Mouth-piece paper for cigarette tobacco

GLATZ J GMBH 25.10.77-ES-463499

F09 (19.05.79)

22.12.77 as 153655.

BURR- D18 12851T/08 =J7 9014-198

Multi-layer tobacco filter - of cellulose acetate and activated carbon

BURRUS & CIE F J (BUR -) 14.08.70-CH-012221

*A88 P15 (05.06.79) *BE-771-265 +A24b-15/02 A24c-05/50*

A tobacco filter consists of $\geqslant 3$ different filter media, > 1 being to remove particles of diameter $> 0.1\,\mu$ and $\geqslant 1$ other being to remove chemically polar constituents of particles dia. $< 0.1\,\mu$. The use of a number of different filters removes a wider range of substances more efficiently.

The corase particle filter is preferably 3-10% (on tobacco) of cellulose acetate fibres of 1-10 denier or 3-10% crepe paper. Equal volumes of activated carbon and porous magnesium silicate of 0.1-2 mm. particle diameter are used in the second filter to remove chemically polar fine particles. A third filter nearest the smoker of 2-10% cellulose acetate fibres of 1-10 denier. The three filters are in separate longitudinal segments. 14.8.71 as 061958 (clg. 14.8.70-CH-012221) A24c-5/50, A24b-15/027(5.6.79) BURUS, & CIE. F.J. (5pp) (J4 7005298)

BRTA D18 56101U/38 =NL-160-480

Ventilated filter tip cigarette - with filter in uniform porosity wrapper

BRIT AMER TOBACCO LTD 27.10.71-US-193124

*P15 (15.06.79) *ZA7207-138 A24d-01/04*

A filter cigarette is described in which the filter element is enclosed by a sleeve of an unperforated porous material and this sleeve is further enclosed in a second non-perforated porous sleeve which permits the flow of air into the smoke stream. Part of the outer wall of the outer layer is partially covered with an impermeable layer by means of which the quantity of air drawn into the smoke is precisely controlled. This outer layer is pref. coated on one side with adhesive and also serves to bind the filter together.

The arrangement allows the dilution air to be accurately regulated for varying tobacco mixes. 24.10.72 as 014356. (4pp1370)

BRUS/ ★ D18 48576B/26 ★SU-621-725

Tanning hides with zirconium salts - includes additional treatment with urea formaldehyde-furfurol resin, to accelerate process and improve quality of product

BRUSILOVSKII M I 29.11.76-SU-424417

A97 E32 (A21) (12.08.78) C14c-03/08

Hides can be tanned with zirconium salts, neutralised, additionally tanned and filled. This process is improved by simultaneously performing the neutralisation and filling processes by treatment with a urea-formaldehyde-furfurol resin. The duration of the process is shortened by 15%. The quality of the product is improved. In particular, the peripheral parts of the hide are considerably strengthened.

Brusilovskii, M.I., Azarov, S.A., Shapirov, V.S. et al Bul. 32/30.8.78. 29.11.76. as 424417 (2pp70).

See Also

D16 SU 621724

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

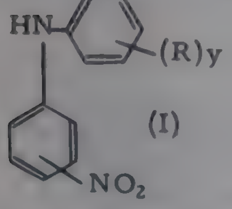
OREA D21 04219R/04 =DS 1792-155
N-methylol cpds used in hair prepns
L'OREAL SA 02.08.67-LU-054230
*E16 (21.06.79) *FR1578-302 +A61k-07/08*

Hair treating compsn. e.g. for water-waving contains a methylol cpd. capable of polycondensation (I) and usual additives. Cpd. (I) has the formula NYX-$(CH_2)_n$-Q-CH_2OH (where Y and Z each are lower alkyl, fatty acid radical or -$(CH_2)_{n1}$-Q^1-CH_2OH; n and n^1 = 1-6 and Q and Q^1 each are -NH-CO-NH-; -NH-CS-NH- or -CO-NH-). Cpds. I may be etherified with a lower alkanol or be converted to a quaternary ammonium salt.

(I) may be diethylmethyl-monomoethylolethylurea ammonium iodine. The hair may be treated with an acid catalyst before or with the compsn. (I) adheres firmly to the hair fibres giving a lasting effect. 29.7.68 as 792155(10pp)

BRIM D21 47158V/26 =DS 2364-114
Nitrodiphenylamine dye-based hair colouring prepns - are orange-yellow-red and have good affinity for damaged hair and improved fastness to shampooing
BRISTOL MYERS CO 26.12.72-US-318293
*E24 (21.06.79) *BE-808-596 A61k-07/13 C09b-51 +D06p-01/19*

Hair dye contains a normal carrier for direct drying and 0.001-10 wt% of a nitrodiphenylamine dye of formula (I)



(I)

(where y = 0 or 1; R is NH_2, mono- or di-(hydroxy) alkyl amino, -NH-CO- alkyl, -OH, -O-CO- alkyl, where alkyl is 1-6C alkyl and the NO_2 gp is in the 0- or p-position)

Pref. (I) is 4' [N, N-bis(3-hydroxyethylamino)] -2-nitrodiphenylamine. The dye is stronger and more long-lasting. 21.12.73 as 364114(12pp68)

DEGS ★ D21 47295B/26 ★DT 2755-913
Stable, dental gold alloy - contains zinc and tantalum and/or tungsten
DEUTSCHE GOLD & SILBER 15.12.77-DT-755913
M26 (21.06.79) C22c-05/02

The Au alloy, which has an improved golden-yellow colour, is composed of 60-90 wt.% Au, 5-35 wt.% Pt, 0.1-3 wt.% In, 0-10 wt.% Pd, 0-3 wt.% Sn, 0-3 wt.% Rh, 0.1-2wt.% Ta and/or W and 0.3-2 wt.% Zn in which the ratio of the sum of Pt metals:Zn:Ta and/or W is 15-30:1:0.5-1.3 (25:1:1).

The addn. of Zn in combination with Ta and/or W provides a stable golden colour. The alloy can be coated with a porcelain layer hardened by subsequent baking. The alloy is used for dentures, and as casting for dental crowns, bridges and inlays. 15.12.77 as 755913 (7pp095)

SCHE/ ★ D21 47324B/26 ★DT 2756-256
Compsn. for treating bone defects - comprises gellable soln. of polysaccharide and/or gelatin
SCHEICHER H 16.12.77-DT-756256
B05 (D22) (21.06.79) A61k-31/71 A61k-33/42 A61k-37/02

Compsns. for coating and/or filling bone defects (esp. prior to insertion of implants) comprise a soln. of at least one polysaccharide and/or gelatin in physiological saline soln., which forms a gel at body temp.

The compsns. are esp. useful for sealing the socket after tooth extraction, opt. before inserting a dental implant, and can serve as a vehicle for various active ingredient, e.g. for promoting wound healing, bone regeneration or tissue diffusion. The are not washed off immediately by wound secretions, etc., but are dissolved or resorbed gradually. 16.12.77 as 756256 (26pp367)

FARB ★ D21 47327B/26 ★DT 2756
Low mol. wt. poly:ol mixt. prodn. - by hydrogenating formose under alkaline conditions, useful e.g. for polyurethane prodn.
BAYER AG 16.12.77-DT-756270
A25 C03 E17 (21.06.79) C07c-29/14 C07c-31/18 C08g-1 C08g-63 C08g-65/26

Prodn. of low mol. wt. polyols (I) comprises reducing mose (II; self-condensation prod. of HCHO) at 80-220° under 50-300 bar H_2 in presence of a metal catalyst.

A soln. of (II) of ⩾ 20 wt.% is introduced batchwise into a reactor so that the content of reducible gps. (exp -sed as CO) in the prod. mixt. is ⩾̸ 2 wt.%. This is r duced at pH 7.5-12.5 using 10^{-4} to 5 x 10^{-2} wt.% cataly (on total amt. of reducible starting material) and when content has fallen < 0.5 wt.% the prod. is withdrawn batchwise leaving the catalyst in the reactor.

Pref. each batch is 3-30 times the amt. of catalyst the feed is supplied at a speed corresp. to filling $^1/_6$ of the reactor in 3-120, esp. 5-30 min.

(I) are claimed (a) for making polyether-and polyeste polyols; (b) for making nonionic surfactants (by reactin with fatty acids, by partial ethoxylation etc.) and (c) as low mol. wt. polyol component for polyurethane prodn. They are also useful as moisture-retaining additives fo cosmetics and plastics, as antifreeze agents and as for ulation aids in plant protection. Rapid, simple, relativ low pressure process giving colourless (I) without caramelisation and with very low demand for catalyst. The proportion of 2,3 and 4C components is higher than in other processes. 16.12.77 as 756270 (41pp1251)

OREA ★ D21 47453B/26 ★DT 2854-
Compacted nail-polishing compsn. - contains wax(es), met di:hydroxy-stearate, abrasive(s), opt. filler and pigment
L'OREAL SA 19.12.77-FR-038254
E17 (21.06.79) A61k-07/04

Nail-polishing compsn. contains ⩾1 wax, (I), Me-9,10-dihydroxystearate, (II), and ⩾1 abrasive, (III) esp. ''Tripoli'' (R TM) (diatomite), kieselguhr and/or SnO_2.

The compsn. can be used as a compacted powder bod a chalk or stick, without soiling clothes, etc. (II) soften protects and improves nail gloss.

The compsns. pref. contain, by wt. 5-20 % wax, 30-6 % (II) and 15-65 % (III), esp. 15-35 % '' Tripoli'' (R TM) /or kieselguhr, or 5-50% SnO_2. The waxes may be carnu and/or rice bran wax. The compsns. may also contain a dispersed, powdery filler, esp. 5-35% $CaCO_3$ and/or kao lin; and a pigment, esp. an inorganic pigment, e.g. Fe oxide. 18.12.78 as 854556 (13pp200)

FARB D21 47327B/26 =EP ---2-47
Low mol. wt. poly:ol mixt. prodn. - by hydrogenating formose soln under alkaline conditions, useful e.g. for polyurethane prodn.
BAYER AG 16.12.77-DT-756270
*A25 C03 E17 (27.06.79) *DT2756-270 C07c-29/14 C07c-31/1 C08g-18/32 + C08g-63 C08g-65/26*
D/S: E(BE, CH, DT, FR, GB, IT, NL, SW).

Prodn. of low mol. wt. polyols (I) comprises reducing formose (II; self-condensation prod. of HCHO) at 80-220° C under 50-300 bar H_2 in presence of a metal catalyst.

A soln. of (II) of ⩾ 20 wt.% is introduced batchwise into a reactor so that the content of reducible gps. (expressed as CO) in the prod. mixt. is ⩾̸ 2 wt.%. This is reduced at pH 7.5-12.5 using 10^{-4} to 5 x 10^{-2} wt.% catalyst (on total amt. of reducible starting material) and when the CO content has fallen below 0.15 wt.% the prod. is withdrawn batchwise leaving the catalyst in the reactor.

Pref. each batch is 3-30 times the amt. of catalyst and the feed is supplied at a speed corresp. to filling $^1/_6$ of the reactor in 3-120, esp. 5-30 min

(I) are used (a) for making polyether- and polyester-
lyols; (b) for making nonionic surfactants (by reacting th fatty acids, by partial ethoxylation etc.) and (c) as low ol. wt. polyol component for polyurethane prodn. They e also useful as moisture-retaining additives for cosetics and plastics, as antifreeze agents and as formulaon aids in plant protection.

The process is at relatively low pressure. It gives colarless (I) without caramelisation and with very low demnd for catalyst. The proportion of 2,3 and 4 C componnts is higher than in other processes.

.12.78 as 101530 (42pp1251)
G)ISR: DT-434216; DS-830951; FR1335323; US2759024; R1234335.

VELA D21 45814B/25 =EP ---2-506

q. hair conditioner and shampoo compsns. - contain water-soluble hitosan salt esp. with organic acid as conditioner

WELLA AG 09.12.77-DT-754796
*A96 (A11) (27.06.79) *DT2754-796 A61k-07/06 + C08l-05/08*
/S: E(DT, FR, GB, IT, NL).

water-soluble chitosan salt, (I), pref. of HCOOH, cOH or lactic acid, is incorporated into aq. haironditioner and -shampoo compsns., in addn. to standard air cosmetic additives.

(I) have hair-conditioning activity and can improve ombing out properties, hand and gloss partic. of damaged air.

.12.78. as 101615 (13pp200).
G) ISR: FR 2137684; GB-458815; GB-458839; US 3632754.

UNIL D21 35177B/18 =EP ---2-594

Germicide free antibacterial mouth-wash - contains ethanol, peppermint or spearmint oil, anionic surfactant and water

UNILEVER LTD 12.12.77-US-859632
*A96 (27.06.79) *US4150-151 A61k-07/16*
D/S: E(DT, FR, GB, IT, SW).
Full Patentees: Unilever Ltd. (D/S: E(GB)); Unilever N.V. (D/S: E(DT, FR, IT, SW)).

A physiologically acceptable, germicide-free, water-based mouthwash comprises (a) 0.1-2 wt.% of an essential oil flavour consisting of spearmint and/or peppermint, (b) 0.1-0.6 wt.% of an alkyl sulphate anionic surfactant mixt., and (c) 5-20 wt.% of ethanol. Mixt. (b) consists of a dodecyl sulphate salt and a tetradecyl sulphate salt in the wt. ratio 1-75:1 resp.; and the cationic moiety of the salts is Na, K, Mg, NH_4 and/or substd. ammonium.

The compsn. can be used to form an antibacterial mouthwash which is acceptable to the user and which does not rely upon conventional germicide agents to provide the antibacterial action. The mouthwash thus does not have a bitter taste. The compsn. is useful in reducing malodour in the mouth associated with the ingestion of foods contg. onion and garlic, this effect being obtd. with a relatively low level of alcohol and without bitter or astringent substances.

8.12.78 as 300780 (25pp914)
ISR: FR2258865; GB1288819; FR2282861; FR2185388; FR2190405; GB1421064; DS-975623; DT2255177.

UNIL D21 88501Y/50 =GB 1547-874

Dentifrices with anti-caries activity - contg. sodium trimetaphosphate and silica xerogel

UNILEVER NV 19.05.76-GB-020702
*B05 (27.06.79) *DT2721-513 A61k-07/16*

A dentifrice for combatting dental caries comprises 0.5-
6 wt.% sodium trimetaphosphate and 0.5-25 wt.% of a
silica xerogel abrasive. Silica xerogel has average part-
icle size 2-30 microns.

Pref. dentifrice is in the form of a toothpaste contg.
5-50 wt.% silica xerogel abrasive. Dentifrice also cont-
ains 0.2-8 (0.5-2.5) wt.% sodium monofluorophosphate.
Dentifrices opt. contain humectants, binders or thicken-
ing agents, surfactants, flavourings agents and/or sweet-
ening agents.

Toothpaste compsns. prepd. contg. silica xerogel as abrasive retain higher levels of sodium trimetaphosphate w.r.t. with toothpastes based on hydrated alumina abras-

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ASAH ★ D21 48047B/26 ★J5 4062-328

Cosmetic additive for improving adhesion, lubricity etc. - comprises white, fine crystalline cellulose powder

ASAHI CHEMICAL IND KK 24.10.77-JA-126704
(D17) (19.05.79) A61k-07

Additive comprises white, fine crystalline cellulose powder of mean particle dia. $< 25\mu$; the content of particles of dia. $< 30\mu$ is 0-10wt.%.

Additive is used in cosmetics, such as powdery cosmetics, lotions, milk lotions, creams etc., giving improved spreadability and adhesion to the skin. Additive is not harmful or toxic to humans, can retain perfume and moisture for long periods, and does not give a sticky feeling to user. 24.10.77 as 126704. (8pp42)

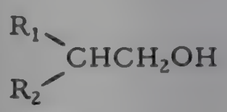
KANE ★ D21 48048B/26 ★J5 4062-329

Two/phase aq. alcohol cosmetic compsn. - forms a water-in-oil emulsion when shaken vertically, and an oil-in-water emulsion when rotated horizontally

KANEBO KK 27.10.77-JA-129314
E17 (19.05.79) A61k-07

The compsn. is composed of (I) 20-27wt.% 16-24C liq. alcohol, (II) 10-60wt.% ethyl alcohol and/or isopropyl alcohol and (III) 10-50wt.% water.

Pref. (I) is oleyl alcohol or a cpd. of formula :



$$R_1R_2CHCH_2OH$$

(where R_1 and R_2 are alkyl, having a total of 6-12C and a difference of 2C); the content of (I) is 30-60wt.%, of (II) is 15-45wt.%, and (III) is 15-45wt.%; an ester, such as isopropyl myristate, isocetyl palmitate, diisopropyl adipate, di-2-ethyl palmitate, diisopropyl myristate, di-2-ethyl hexyl succinate or tri-2-ethyl hexyl glyceride, liq. hydrocarbon, such as liq. paraffin and squalane, and vegetable oil, such as olive oil, may be added to the compsn. in a concn. < 17.5wt.%; and the two phases are pref. coloured with pigments. 27.10.77 as 129314. (6pp42)

HARA/ ★ D21 48049B/26 ★J5 4062-330

Cosmetic compsn. for skin - comprises propylene glycol and chloramphenicol removing wrinkles etc. and having anti-sunburn effect

HARA S 21.10.77-JA-125817
E14 (E17) (19.05.79) A61k-07

Compsn. (I) is composed of propylene glycol (II) and chloramphenicol (III) in the ratio of (III)/(II) = 0.5-2.0/100cc.

Rough skin can be made smooth and fine wrinkles and freckles can be removed by applying (I) to skin for a certain period of time. (I) has anti-sunburn effect. (I) can be used in cosmetics, such as creams, lotions, etc. 21.10.77 as 125817. (3pp42)

TSUR ★ D21 48050B/26 ★J5 4062-331

Gelled hand cleaning compsn. - comprises liq. vehicle, amphoteric surfactant and carboxy-vinyl polymer

TSUMURA JUNTENDO KK 27.10.77-JA-128171
A96 E17 (19.05.79) A61k-07

The compsns. comprise 100pts.wt. substrate (II), 0.1-4.0pts.wt. amphoteric surfactant (III) and 0.1-5.0pts.wt. carboxy vinyl polymer (IV). The compsn. has high washing effect and bad-odour-masking effect. It can be easily removed from the skin.

As (II), water, methanol, ethanol, isopropyl alcohol, n-propyl alcohol, glycerin, sorbitol, propylene glycol, monomethyl ether are used. A mixt. of 30-80pts.wt. water, 10-50pts.wt. of low molecular alcohol and 0.5-10.0pts.wt. low molecular polyol is most pref. Examples of (III) are alkyl glycine-amphoteric surfactant and betaine-amphoteric surfactant. The mol.wt. of (IV) should be 2,000,000-3,000,000. 27.10.77 as 128171. (4pp42)

KANE ★ D21 48051B/26 ★J5 4062-332

Stable creamy or emulsive cosmetic - comprising pectin, oily cpd. and water

KANEBO KK 27.10.77-JA-129315
A96 (19.05.79) A61k-07

A creamy or emulsive cosmetic (I), comprises pectin (II), oily cpd. (III) and water (IV). (I) is highly safe, has high affinity to skin, high stability against change in quality and high emulsion-stability. In the prepn., (II) and (IV) are heated under agitation, and then the mixt. is emulsified under vigorous agitation after addn. of (III).

The contents of (II), (III) and (IV) are 0.05-20wt.%, 5-90wt.% and 10-90wt.%, respectively. (II) has pref. an average molecular wt. 10,000-1,000,000 and methyl esterification degree 5-95%. Examples of (III) are hydrocarbon, such as liq. paraffin, squalane, etc., animal fat, such as wheal oil (sic), tallow, etc., vegetable oil, such as castor oil, palm oil, etc., wax, such as lanolin, carnauba wax, etc., high molecular alcohol, high molecular fatty acid and/or ester oil. 27.10.77 as 129315. (6pp42)

SHIS ★ D21 48186B/26 ★ J5 4063-132

Red pigment complex for use in cosmetic compsns. - obtd. by reacting rhodamine B and an ionic dye on clay mineral material

SHISEIDO KK 31.10.77-JA-130465

E23 (E24) (21.05.79) C09c-03/08

Prodn. of red colouring pigments comprises adsorbing a complex obtd. by reacting Rhodamine B (cationic dye) and an anionic dye on clay mineral material. Rhodamine B has excellent colour power, light resistance, bright tone and a wide colour range but colours the skin, and so cannot be used in cosmetics. By making a complex and subsequent adsorption, the skin colouring nature is eliminated, and the prod. is useful in cosmetics.

The reaction of Rhodamine and an anionic dye in aq. medium proceeds as follows: $D_1\text{-}SO_3Na + D_2{=}N(C_2H_5){+}_2\ Cl^- \longrightarrow D_1\text{-}SO_3(C_2H_5)_2N{=}D_2$ where D_1 and D_2 are dye residue. When the anionic dye has one sulphonic gp., the 1:1 complex is formed, and when two sulphonic gps., 1:1 and 1:2 complexes are formed. The formation of the complex is determined by specific conductivity method, capillary method etc. The adsorption of the complex on clay mineral is determined by X-ray diffractometry. For example, the pigment is made by mixing solns. each contg. equimolar Rhodamine B and an anionic dye to form a complex, adding clay mineral (bentonite etc.) with stirring, treating with a chloride of Ca, Ba or Al, stirring at 50°C for ca. an hour to ppte. a pigment, filtering it, hot washing, drying and crushing. 31.10.77 as 130465. (7pp119)

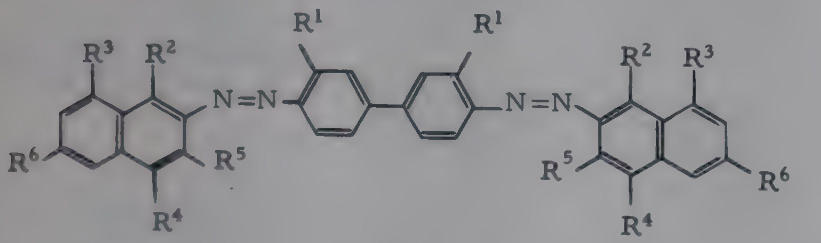
SHIE ★ D21 48195B/26 ★ J5 4063-148

PVA compsn. for use as base material for deodorant gels - contains saponified PVA and diazo cpd. and/or phenol (cpd)

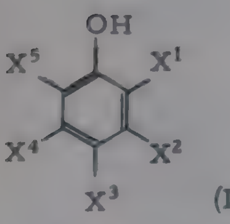
SHINETSU CHEM IND KK 31.10.77-JA-130585

A14 E21 (A97) (21.05.79) A61k-07/46 C08k-05/13 C08l-29/04

The compsn. comprises (1) PVA of saponification degree 80-100% and (2) a diazo cpd. of formula (I) and/or a phenol of formula (II).



(I)



(II)

In (I), R^1 is H, methyl or methoxy; R^2 is amino or OH; R^3 is H or amino; R^4 and R^5 are H or $-SO_3Na$; R^6 is H, amino or $-SO_3Na$, providing that R^3 and R^6 are amino or $-SO_3Na$ when R^4 is H. In (II), X^1, X^2, X^4 and X^5 are H or OH; X^3 is H, OH, or COOH.

Compsns. are used as water-contg. gels for deodorant base material. (I) includes Congo Red, C.I. Direct Red 28, Congo Corinth, C.I. Direct Red 10, etc. (II) includes catechol, resorcin, hydroquinone, etc.

In an example, a gel deodorant was prepd. by mixing, at 60°C for 10 mins., PVA (saponification degree 98.8%, polymerisation degree 1760) 100, Congo Red 0.8, ethylene glycol 1.0, and rose aroma, followed by gelation at 5°C for 4 hrs. in a refrigerator. A red flexible gel of good appearance was obtd. 31.10.77 as 130585. (5pp128)

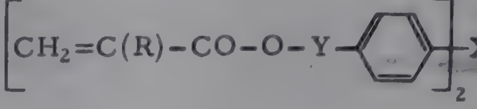
ESPE D21 40807Q/00 =NL-160

Prodn of teeth fillings by polymerising a diacrylic

ESPE FAB PHARM PRAPARATE 15.05.68-CH-007178

*A14 E14 +P32 (15.06.79) *NL6907-472 A61k-05/06 C08f-20*

Dental filling materials or dental prostheses are produ by polymerisation of a di(meth)acrylate of formula (I), in the presence of fillers. In (I), X is alkylidene or SO



(I)

R is H or CH_3 and is 2-5C oxyalkylen or 1-5C alkylidene Pref. (I) have R = CH_3; Y = C_2H_4 and = $C(CH_3)_2$ and are more compatible with (i.e. less injurious towards) dentine. 14.5.69 as 007472. (8pp922)

TEXC D21 42021Q/00 =NL-160-

Dialkylhydantoin-formaldehyde film forming resins as

DEUTSCHE TEXACO AG (RHEP) 29.05.68-DT-770518

*A96 (15.06.79) *NL6908-028 A61k-07/11 C08g-12/36*

A film-forming resin, suitable as a hair-setting agent, produced by reacting 5,5-dialkylhydantoin, urea and for aldehyde in a molar ratio of 1:0.2-2.5:1.5-2.5 and meth ylolating in the presence of 0.2-1 mol. of a ketone per mol. urea.

The prod. has improved water-solubility so that complete rinsing away is possible. 27.5.69 as 008028. (3pp922)

HUBE D21 74354X/40 =US 4157-9

Amorphous pptd silica esp for use in tooth-pastes - prepd by ac pptn from alkali metal silicate soln, re-dissolving in such soln the re-pptn BE130976)

HUBER J M CORP (RHON) 12.03.75-US-557707 (16.05.77-U 797271)

*A60 B06 E36 (D25) (12.06.79) *DT2610-207 C08k-03/36 C09k-*

A paint and coating compsn. contains, as flatting agent, a finely divided, amorphous, pptd. SiO_2 having (a) a wet cake moisture content of 77.9-83.5%, it being 77.9-83.2 in the presence and 79.8-83.5 in the absence of metal cat ions, (b) a structure index of 350-505, it being 350-495 in the presence and 395-505 in the absence of metal catio (c), an oil absorption of 190-212 cc/100g, it being 193-212 in the presence and 190-202 in the absence of metal cations, (d) a void vol. of 3.19-4.44 ClHg/g. SiO_2, it being 3.19-4.44 in the presence and 3.55-4.14 in the absence of metal cations (e) a BET surface area of 120-220 m^2 it being 153-220 in the presence and 120-153 in the absence of metal cations and (f) a friability of 20-98 % it being 28-93% in the presence and 20-98% in the absence of meta cations. The silica comprises $\geqslant$90% SiO_2 and the metal cation is Al, Mg, Zn, or Ca.

The prod. has reduced wet cake moisture content, high surface area and oil absorption, and good surface activity friability, wetting characteristics, etc. The prods. are esp. used as rubber reinforcing agents, but can also be used in paints, paper, detergents, dentifrice compsns. molecular sieves and polymeric compsns. 16.5.77 as 797271 (32pp976).

ELIL D21 42204A/24 =US 4158-053

Nail varnish based on aq. polymer emulsion - gives rapid drying film of good moisture permeability

ELI LILLY & CO 05.08.77-US-822040

*A96 G02 (A14 A82) (12.06.79) *BE-861-728 A61k-07/04*

Nail coating formulation is prepd. which upon drying form a film which will adhere to keratin of the nail, and has moisture vapour transmission of 0.1-1.6 $mg/cm^2/hr$.

Formulation comprises an aq. emulsion polymer with solids content of 30-55%. Polymer has a Tg of -10 - +50 °C when measured by differential thermal analysis. Prep is by an aq. emulsion polymerisation of $\geqslant$2 monomers of formula $CH_2{=}CHCOOR$, $CH_2{=}C(CH_3)COOR$ and/or $R^1C(PhR^2){=}CHR^1$, where R is 1-20C alkyl, Ph, benzyl, hydroxy- or 1-4C alkoxy- (1-4C) alkyl, cyclopentyl, cyclohexyl, furyl, 1-4C alkylfuryl or (1-4C alkyl) tetrahydrofuryl. R^1 is H or Me, R^2 is H or 1-3C alkyl. When R in one monomer is 1-4C alkoxy- (1-4C) alkyl, the R in the other monomer is not 1-4C alkoxy- or hydroxy (1-4C) alkyl.

Formulation has improved properties of reduced occlu-
, faster drying time, non-yellowing of the nail and a
-flammable solvent. 5.8.77 as 822040 (11pp931).

See Also

D13 US 4157984
D22 J7 9014074
D23 BE 872943
D25 J5 4063021

D22: BANDAGES; DRESSINGS

R ★ D22 47146B/26 ★BE-872-887
**a whitlockite prepn. in solid or porous form - by direct reaction in
sence of excess calcium, drying, and sintering, for use in
sthesis**
STERLING DRUG INC 23.12.77-US-863721
L02 P32 (20.06.79) A61f C04b

anslucent, isotropic, essentially pore-free polycrystal-
ceramic consists of whitlockite contg. 0.1-2.2 wt.%
lphate ions in its crystal lattice, and has an average
ain size of 0.3-3 μ and a density ⩾98% of the theoreti-
l value for β-whitlockite.

Also claimed is an expanded polycrystalline ceramic
dy of the same compsn. and grain size but with a total
re volume of 20-80%. The ceramic bodies may be in the
rm of flat sheet, round rod, or resorbable osseous arti-
cial prosthesis.

Esp. as bone replacements for orthopaedics. It can be
sed for complete or partial replacement. Since it is re-
orbed slowly, it is replaced slowly by hard new biologi-
al tissue. The non-porous material exhibits high com-
ressive strength (6300-9100 kg/cm^2) and tensile strength
700-2100 kg/cm^2) and higher according to the shape and
ize of the body. 20.12.78 as 872887 (23pp396)

OLN ★ D22 47149B/26 ★BE-872-890
**travaginal period sanitary tampon with extraction cord - which is
oped into absorbent material to prevent tampon distortion during
xtraction**
MOLNLYCKE AB 21.12.77-SW-014598
P32 (20.06.79) A61f

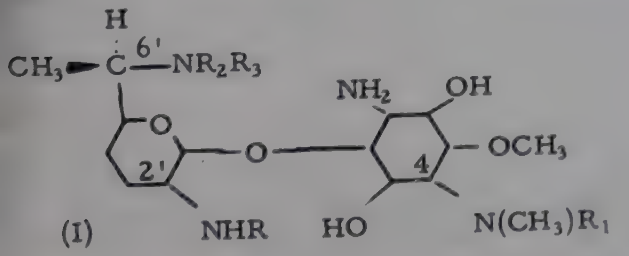
An intravaginal, periodic, sanitary tampon comprises a
multilayer pad of absorbent material rolled as a cylinder,
and an attached extractor cord extending from one end of
the tampon.

The cord is now laid right through the layers to form at least two loops with strands extending around opposite longitudinal ends of at least two absorbent layers. The loose ends of the cord pref. project from the centre of the layers so that they eventually hang axially from the cylindrical tampon. The absorbent layers are pref. enclosed in waterproof plastic cover sheet.

The cord location ensures that the tampon does not suffer distortion when the cord is pulled for extraction, so that removal is clean and easy. 20.12.78 as 872890 (14pp448)

ABBO ★ D22 47151B/26 ★BE-872-911
**-Acyl or alkyl-epi-fortimicin derivs. - useful as antibacterials,
disinfectants, intermediates etc.**
ABBOTT LABORATORIES 21.12.77-US-863007
B03 E13 (20.06.79) A61k C07h

6'-Epifortimicin derivs. of formula (I) and their salts are new:



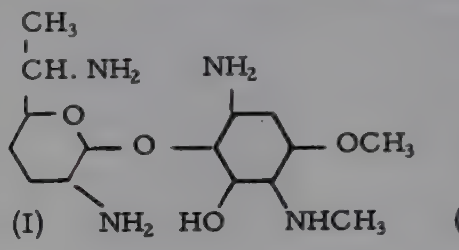
(I)

(R=acyl, hydroxyacyl, aminoacyl (opt. N-alkyl or N,N-dialkyl substd) hydroxy-substd. aminoacyl, alkyl (opt. substd. by NH_2 (opt. N-alkyl or N,N-dialkyl substd.) and/or OH), or an amino acid residue; R_1 is as R or additionally H. R_2= alkyl. R_3=H or alkyl). All alkyl gps. are 'lower'. They are made, e.g. for the 2'-acyl cpds. by rearranging the 4-N-acyl analogues.

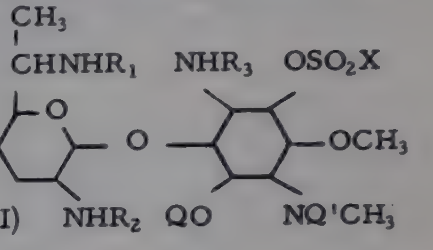
useful as antibacterials, effective against gram positive and negative species and given at 1-200 mg/kg per day. They are also useful as disinfectant solns. (200-1000 μg/ml) and as intermediates for other fortimicins. Their fluosilicic acid salts are mothproofing agents and their salts with thiocyanic acid can be condensed with HCHO to give corrosion-inhibiting resins. 20.12.78 as 872911 (34pp1251)

ABBO ★ D22 47152B/26 ★BE-872-912
2-Deoxy-fortimicin B and its precursors - useful as antibacterial, disinfectant and intermediate
ABBOTT LABORATORIES 21.12.77-US-863009
B03 E13 (20.06.79) A61k C07h

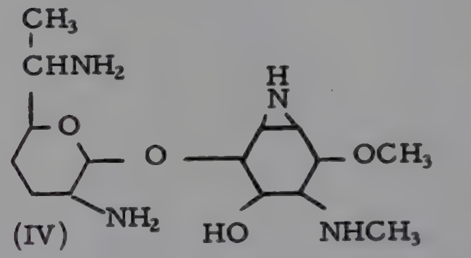
2-Deoxyfortimicin B of formula (I) and its salts are new: Also new are intermediates of formula (II) and where appropriate their salts; 1,2-epiminofortimicin B of formula (IV) and 1-deamino-2-deoxy-2-epiaminofortimicin B (V). (Q and Q' are both H (cpds. (IIa)) or are together -CHR-



(I)



(II)



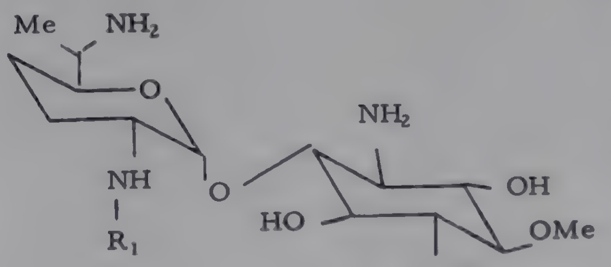
(IV)

(cpds. (IIb)). R_1, R_2 and R_3 are each H or benzoxycarbonyl. X=1-8C hydrocarbyl. R=H, lower alkyl, opt. substd. aryl, benzyl, tosyl or toluyl).

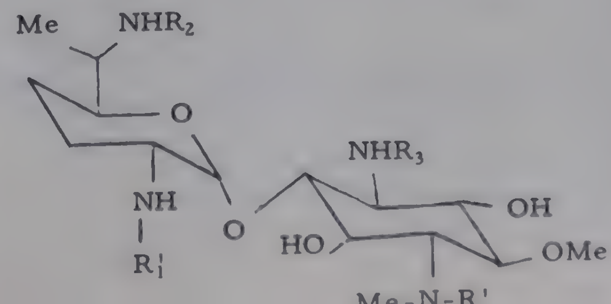
(I) is an antibacterial administered e.g. at 10-200 mg/kg per day or incorporated into disinfectant solns. at 200-1000 μg/ml. It is also an intermediate for 2-deoxyfortimicin A. 20.12.78 as 872912 (14pp1251)

ABBO ★ D22 47153B/26 ★BE-872-913
N-acylated fortimicin E derivs. - with broad-spectrum antibacterial activity, used e.g. as medicaments, preservatives or disinfectants
ABBOTT LABORATORIES 21.12.77-US-863010
B03 E13 (20.06.79) A61k C07h

Fortimicin derivs. of formula (I) and their salts are claimed:



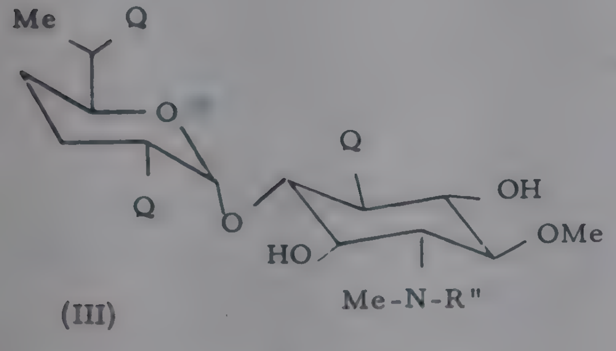
(I)



(where R and R_1 are H, acyl, aminoacyl, N-(lower alkyl)aminoacyl, N,N-di-(lower alkyl) aminoacyl, OH-substd. aminoacyl or an amino acid residue, but R and R_1 cannot both be H).

Also claimed are new intermediates of formulae (II) and (III) and their salts (where R_1', R_2

(II)



(III)

and R_3 are H or benzyloxy carbonyl (Z); R' is acyl, aminoacyl, N-(lower alkyl) aminoacyl, N, N-di(lower alkyl)amino-acyl, OH-substd. aminoacyl or an amino acid residue, opt. N-protected by Z; Q is salicylideneamino; R" is H or R').

Cpds. (I) are antibacterial agents active against Gram-positive and -negative bacteria, e. g. with MIC values of 6. 25-50. 0 μg/ml against Staph. aureus Smith, E. coli Juhl and B. subtilus U. Ill. 10707. They can be used as medicaments, industrial preservatives or disinfectants, or for preparing mothproofing agents, or antifouling resins. 20. 12. 78 as 872913 (28pp367)

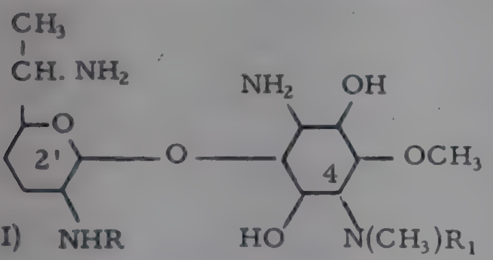
ABBO ★ D22 47154B/26 ★BE -872-914

2-Acyl or alkyl fortimicin derivs. - useful as antibacterials, preservatives, disinfectants etc.

ABBOTT LABORATORIES 21.12.77-US-863012

B03 E13 (20.06.79) A61k C07h

Fortimicin derivs. of formula (I) and their salts are new:



(I)

(R=acyl; aminoacyl (opt. N-mono or N, N -di-alkyl substd.), hydroxy-substd. aminoacyl, amino acid residue, or alkyl (opt. substd. by NH_2 (opt. N-mono or N, N-dialkyl substd.) and/or by OH). R_1 is as R or additionally H). All alkyl gps. are 'lower'. They are made, e. g. for 2'-N-acyl cpds. by rearranging the corresp. 4-N-acyl cpds.

(I) are antibacterials effective against Gram positive and negative species and administered at 1-100 mg/kg day. They are also useful as preservatives, disinfectants and intermediates for other fortimicins. The fluosilicic acid salts are useful as moth-proofing agents and the salts with thiocyanic acid can be condensed with HCHO to give corrosion-inhibiting resins. 20. 12. 78 as 872914 (25pp1251)

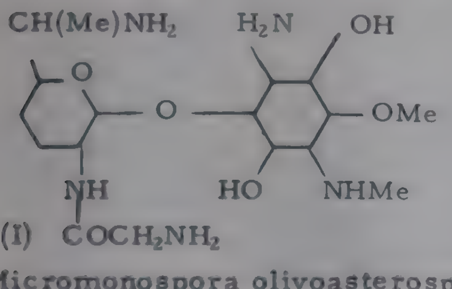
ABBO ★ D22 47155B/26 ★BE -872-915

Antibiotic iso:fortimicin with broad-spectrum antibacterial activity - obtd. by culturing Micromonospora olivoasterospora ATCC 20819

ABBOTT LABORATORIES 21.12.77-US-863015

B03 E13 (20.06.79) A61k C07h C12d

Isofortimicin of formula (I) and its salts are new:



(I)

(I) has antibacterial activity against Gram-positive and -negative bacteria. It can be used as a medicament a disinfectant and an intermediate for other antibiotics. (I) is obtd. by culturing Micromonospora olivoasterospora ATCC 20819, 31009 or 31010 as described in US3931400. It can be sepd. from the coproduced fortimicin A and B by chromatography. 20. 12. 78 as 872915 (11pp367)

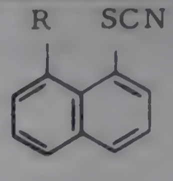
ICIL ★ D22 47159B/26 ★BE -872-920

1-Thiocyanato-8-substd. naphthalene biocides - used to control bacterial, algal and fungal growth in cooling systems, cutting oils, paints, adhesives, etc.

IMPERIAL CHEM INDS LTD 23.12.77-GB-053749

C03 G02 H08 P34 (D15 G03) (20.06.79) A61l C07c

1-Thiocyanato-8-substd. naphthalene derivs. of formula (I) are new:



(I)

(where R is halo, opt. substd. alk
opt. substd. alkoxy, opt. substd.
loxy, hydroxy, nitro, opt. substd.
cyano, $-SO_3OH$, prim., sec., or
amino, opt. substd. carbamoyl or
substd. sulphamoyl). The naphtha
ring may carry other substits. or may be part of a m
extensive condensed ring system.

(I) are biocides used to prevent microbial attack in
media such as aq. cooling systems for electrical pow
stations, aq. systems in paper mills, aq. emulsions
oils such as cutting oils used as cooling and lubricatin
ents in metal working, water-based paints and adhesi
etc. and to protect painted surfaces, wood, leather,
etc. from attack by bacteria, fungi and algae. 20. 12.
as 872920 (29pp395)

JOHJ ★ D22 47160B/26 ★BE -87

**Baby's disposable napkin with elastic edges - to give leak
comfortable fit without skin irritation**

JOHNSON & JOHNSON 20.12.77-US-862309

P21 (20.06.79) A41b

A baby's disposable napkin comprises an absorbent pa
sandwiched between a permeable inner sheet and a wat
proof, outer sheet. The length of an edge of the napki
reduced to less than the length of the corresp. edges o
component sheets by an elastic constrictor strip fixed
parallel to the napkin edge. The edge of the napkin is
drawn into gathers, i. e. ruched, the gathers only flatt
ing out when the elastic strip is tensioned, e. g. when
fastened on a baby. Only the napkin edge is ruched, th
rest of the panel remaining flat.

The width of the elastic strip is pref. 12. 7 mm and
the thickness of the strip $\leqslant$0. 01 times the width. A p
napkin is rectangular and has an elastic strip along ea
edge. The strip is pref. a thermoplastic material hea
sealed to the sheets. Each strip can be made up of sev
al narrow strips, or tubes or monofilaments laid along
each other to a width of $\geqslant$12. 7 mm. 20. 12. 78 as 8729
(33pp448)

BEIE ★ D22 47216B/26 ★BE -874-

**Plaster compsn. contg. strongly crosslinked polyvinyl ester -
used to prepare medical support bandages**

BEIERSDORF AG 16.02.78-DT-806509

A96 L02 P34 (18.06.79) A61l C04b

The compsn. comprises 55-97% plaster, 1-30, pref. 3-3
of a finely dispersed strongly crosslinked vinyl ester p
der having an ethyl acetate insoluble fraction above 50%
0-12, pref. 3-12% of a light cellular or porous materia
apparent density up to 0. 1g/cm^2 and other opt. additive
small amts.

The use of the polymer greatly improves the mechan
resistance to bending and shocks (up to 25%) and also th
moisture resistance, enabling a thinner layer of plaster
to be used with less weight for the patient. 16. 2. 79 as
874237 (12pp597)

BADI D22 07165H/00 =DS 1717-

Less odorous more stable non-aq antiparasitic compns

BASF AG 03.02.68-DT-717103

*C03 E19 F09 +P34 P63 (21.06.79) *BE-727-828 +A01n-17/
A61l-13 B27k-03/34*

Pesticidal non-aqueous liq. compsn. contains $\geqslant$1 of the
cpds., pentachlorophenol (or its salts) and salts of N-ni
-so-N-cyclohexylhydroxylamine as the active componen
$\geqslant$1 cyclic di- or tri-ether chosen from the cpds. dioxa
trioxane and 1, 3-dioxolane; and $\geqslant$1 polyhydric alcohol.

The prods. are esp. useful for the protection of wood
against pests. 3. 2. 68 as 717103(3pp47)

BECK/ ★ D22 47317B/26 ★DT 2756-1

**Determination of number of particles in air - using electrostatic fie
with deflection through 180 degrees for use with microbiologic
counts in pharmaceutical works etc.**

BECK C 16.12.77-DT-756164

J04 R16 (21.06.79) G01n-01/22 G01n-15/06

The number of dust particles in air is used to determine
air purity. The number is measured by deflecting the ai

on.

Below this is mounted an electrode immediately above is is placed a droplet of a tacky liq. to collect the dust on glass slide. Because of the electric field, the particles come charged and are attracted to the electrode located mmediately below the droplet. They enter the boundary yer and then remain. Their number is counted by a conentional microscopic technique.

Used in measuring air purity in pharmaceutical works, spenseries etc. esp. to measure microbiological counts. llows this to be done simply and cheaply using appts. ommonly available in medical or pharmaceutical areas nd in equipment which is easily operated. 16.12.77 as 56164 (24pp1053)

OWC ★ D22 47414B/26 ★DT 2853-119

tabilised aq. antimicrobial slimicidal compsn. - contains oly:alkylene glycol, water, halogenated amide and quat. mmonium or phosphonium cpd.

DOW CHEMICAL CO 14.12.77-US-860543

A97 C03 E19 P34 (A25 D15 D25) (21.06.79) A61l-13

aq. anti-microbial compsn. has pH 2-5 and contains (a) water-miscible organic solvent, e.g. a liq. linear polyalkylene glycol of the ethylene-, trimethylene- or tetramethylene series or a mono- or di- lower alkyl- or -phenyl ether thereof, pref. having wt. average mol. wt., $\overline{M}_w$, 75-1000 (200); (b) water; (c) an anti-microbially active, halogenated amide and (d) a stabilising quantity of a quat. ammonium- or phosphonium stabiliser. The compsn. pref. contains, by wt., 5-90% (a), 5-90% water, 1-25% (c) and 0.05-10% (d).

The compsns. are used as slimicides in aq. systems, e.g. paper pulping and cooling towers, and as sterilisers for cleaning liqs., esp. for textiles.

The addn. of (d) reduces decompsn. rate of (c), e.g. from 5- to 4.1% after 30 days compared with from 5- to 3.3% in control. Process for producing the compsns. comprises in situ prepn. of (c) without sepn. from reaction medium. 8.12.78 as 853119 (27pp200)

MOOC ★ D22 47480B/26 ★EP ---2-509

Dressing for high fluid secretion wounds - has foils enclosing wound and superposed gauze and interchangeable absorption body held by plaster

MO OCH DOMSJO AB 08.12.77-SW-013918

P32 P34 (27.06.79) A61f-13/02 A61l-15/06

D/S: E(BE, CH, DT, FR, GB, NL).

Wound dressing consists of a pair of adhesive pieces (1,2) provided with semi-circular recesses for attachment with or without overlap to the skin about the wound. A perforated foil (4) or gauze is placed over the pieces, and if required over the skin. Attached to the pieces and skin is an absorptive body (8). This has a convex face and consists at least in the proximity of the wound of a material (10) having a water absorption rate of at least of 50 mm per 10 mins, measured in accordance with Klemm (SCAN - P 13:64), the body being enclosed in a foil (9) which is water permeable. Body (8) is attached to the skin using adhesive tapes (6,7).

Use of powder is dispensed with. The body may be changed as required. Provision of pieces encircling wound prevents its festering. The dressing is esp. used with wounds with a high rate of secretion of fluids. 8.12.78 as 101619 (16pp536).

(G)ISR: DT2045941; US2722220; DT1914096; DT2012362; DS519353; US3700549; DT2448664; DS513235.

BEEC ★ D22 47511B/26 ★EP ---2-564

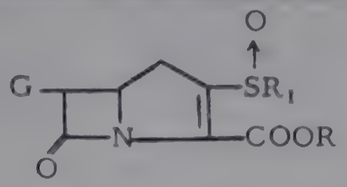
3-Hydrocarbyl:sulphinyl-7-oxo-1-aza bi:cycloheptene derivs. - useful as antibacterials and beta-lactamase inhibitors

BEECHAM GROUP LTD 12.11.77-GB-047201

B02 C02 (27.06.79) A61k-31/40 C07d-205/08 C07d-207 C07d-487/04

D/S: E(DT, FR, GB).

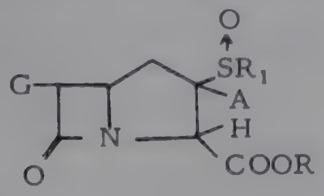
(A) 2-Carboxy-3-hydrocarbylsulphinyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene esters of formula (I) are new:



(I)

(G is H, or alkyl or alkenyl both opt. substd.; R_1 is alkyl or aryl both opt. substd.; R is an organic ester-forming gp.).

(B) Corresp. 3-haloheptanes of formula (II) are new:



(II)

(A is Cl, Br or I).

(I) are antibacterials and β-lactamase inhibitors, and so are useful in treating infections in man and animals, and they are also disinfectants. (II) are intermediates in the prepn. of (I).

18.10.78 as 300522 (157pp1248)

(E) ISR:- DT2711223; DT2728097; DT2751597; DT2736482; GB1467413; GB1483142.

NIRA ★ D22 47963B/26 ★J5 4062-175

Device for treating gas contg. noxious gases, solvents, etc. - contains high surface area, fibrous active carbon obtd. by carbonising, e.g. acrylonitrile polymer fibre

UNITIKA KK 27.10.77-JA-129408

A35 J01 (18.05.79) B01d-53/06

The fibrous active carbon is made of synthetic fibre such as rayon, acrylonitrile, vinylon, polyvinyl chloride etc., which is carbided at 400-1200°C. A column is partitioned by walls impermeable to the gas, into cells, each having a sector cross-section. The carbided polymer sheet is folded into a V-shape profile as seen from the side of the column and packed in each cell.

This increases the surface area of the active carbon packed in the column such as cylindrical column having a gas inlet and outlet for passing the gas through the packed carbon. 27.10.77 as 129408. (3pp26)

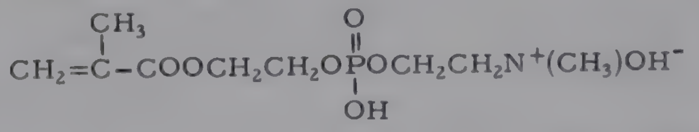
KURS ★ D22 48142B/26 ★J5 4063-025

2-Methacryloxy:ethyl phosphoryl choline - forms polymers having excellent affinity to living tissue and useful as material for artificial organs

KURARAY KK 28.10.77-JA-130081

A41 B05 E11 (B04) (21.05.79) C07f-09/09 C08f-30/02 C08f-291

2-Methacryloxyethyl phosphorylcholine of formula (I) is new. Homopolymers of (I) or copolymers of (I) with other monomers, e.g., methyl methacrylate, have excellent affinity to living tissues and are useful as material for artificial organs.



$$CH_2{=}\overset{\overset{\displaystyle CH_3}{|}}{C}{-}COOCH_2CH_2O\underset{\underset{\displaystyle OH}{|}}{\overset{\overset{\displaystyle O}{\|}}{P}}OCH_2CH_2N^+(CH_3)OH^-$$

(I)

Prepn. comprises reacting 2-hydroxyethyl methacrylate (II) and 2-bromoethylphosphoryl dichloride (III) in an inert solvent in the presence of a tert. base (e.g., pyridine, quinoline, etc.) and reacting the resulting 2-methacryloxyethyl 2-bromoethylhydrodiene phosphite (IV) with trimethylamine. The reaction of (II) and (III) is pref. conducted at low temps. (-20° room temp.). It is pref. to slowly add (II) dropwise to (III). 28.10.77 as 130081. (4pp140)

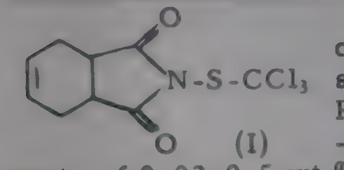
SANS- ★ D22 48291B/26 ★J7 9014-074

Protecting surfactant from bacterial degradation - by adding N-tri:chloromethyl-mercapto-4 cyclohexene-1,2-carboxy-imide

SANSUTA HAMIGAKI KK 30.04.68-JA-028882

E13 (D21) (04.06.79) C11d-03/48

Method comprises adding N-trichloromethylmercapto-4-cyclohexene-1,2-carboxyimide (I) to soln. of surfactant of alkylsulphate type.



(I)

Used for cosmetics, shampoo, etc. contg. alkylsulphate surfactant. (I) selectively kills bacteria belonging to Pseudomonas which cause the surfactant to degrade, at relatively small amt. of 0.02-0.5 wt %. 30.4.68 as 028882, C11d-3/48 (4.6.79) SANSUTA HAMIGAKI KK (3pp83)

KAFU/ D22 31109X/17 = J7 9014-100

Solubilization of antibacterial hinokitiol - by dissolving sodium hinokitiol in ethanol and adding acetic acid and then water

KAFUKA A 03.09.74-JA-101155

*B05 C03 (05.06.79) *J51029-469 C07c-49/56 +A01n-09/24 A61k-31/12 C07c-45*

Method of prepn. of a stable soln. of hinokitiol in which sodium hinokitiol is dissolved in ethanol (18-20 fold amt. w.r.t moles hinokitiol) followed by addn. of acetic acid as neutralising agent and then water in amt. as much as that of the ethanol. Because water soluble hinokitiol is very effective for killing bacteria and mould and is nontoxic, it is used as a medical drug, agricultural chemical, food additive, and plant-growth regulator.

In an example, to 2.7g of sodium hinokitiol, 59g of ethanol and 18g of acetic acid was added water so as to give total 100g of soln. Solubilisation method, Hinokitiol was dissolved in ethanol with agitating, neutralised with acetic acid and diluted with waster so as to give total 100g of soln. A soln. contg. 2% of hinokitiol was obtd. This prod. did not deposit hinokitiol on dilution with water. 3.9.74 as 101155, C07c-49/56, 45/00, A01n-9/24, A61k-31/12 (5.6.79) KAFUKU A. (2pp) (J5 1029469)

WIEB/ D22 85596W/52 = J7 9014-157

Insoluble absorption material for aq. (organic) media - by sorption of organic insoluble material

WIEBER N O (WEAV/) 03.04.74-US-456911

*A11 C03 +P11 (05.06.79) *J50135-196 C08f-08/12*

A starch graft copolymer material which is able to absorb a large amt. of aq. liq. and maintain it under pressure, is produced by(1) subjecting a gelatinised starch-poly(meth) acrylonitrile graft polymer in aq. slurry to alkali saponification, in the molar ratio of (meth)acrylonitrile unit in the polymer to alkali of 0.1:1 to 7:1, (2) regenerating the water-soluble product by adjusting to pH 3, isolating the polymer in its acid form, and then adjusting to pH 4-12 (3) drying the product to a water content of 1-15%.

Prodn. of disposable soft goods such as diapers, hospital bedpans, and pads and sheets for surgery. Coating agent for seeds, clay, starch, fibres and paper, which increases water-holding capacity. The organic amine salts of the material are useful in the prodn. of solid fuel, and paint remover. 3.4.75 as 041128 (clg. 3.4.74-US-456911) C08f-8/12 (5.6.79) WIEBER M.O. (21pp) (J5 0135196)

SPER D22 68751R/38 = NL-160-597

Cleaning electric razors

SPERRY RAND CORP 22.11.66-US-596333

*P43 +P24 (15.06.79) *GB1206-791 +A45d-27/46 C09k-03/30*

The shaving head of a shaving appts. is blown clean by means of an aerosol can with a hand operated valve and a central immersion tube which connects the valve to the fluid as well as a separate port which connects the valve to the gas space. The fluid used pref. consists of 99wt.% of a drive medium of from 85-95% CF_2Cl_2 and 5-15% $CHClF_2$ and some magnesium stearate which serves as a lubricant for the shaver.

The aerosol enables the shaver to be cleaned without harm to the appts. itself or discomfort to the user and leaves the cutter head disinfected and lubricated. 24.5.68 as 015860. (7pp1370)

AABE- ★ D22 48338B/26 ★NL 7713-694

Absorbent underlay sheet impermeable to discharged body fluids - used esp. in hospitals for babies

KONINK AABE FAB 09.12.77-NL-013694

A96 F07 P27 P73 (A18) (12.06.79) A47g-09/02 B32b-27/12 D04h-13

A laminate produced from an absorbent layer of needle felt free from any bonding agent, which is provided with an internal reinforcement of warp threads, and an impermeable support layer of synthetic material, forms an underlay sheet for hospital or domestic use. The needle felt, th warp threads and the synthetic layer are of materials r sistant to high temps. and chemicals. The needle felt consists of two loose fibre fleeces with a web of warp threads between them.

Esp. for hospital use and for children. Provides an underlay sheet which is not only absorbent and impassab by discharged bodily fluids, but is also easy to wash, ca able of withstanding sterilisation processes and is cheap to acquire.

Pref. the fleeces are of a mixt. of 50% cotton and 50 cellulose fibres. The warp threads are polyacrylonitril fibres. The supporting layer is a film of polyethylene o polypropylene. Pref. the film is PET. The adhesive la er bonding the film to the felt is a polyacrylate. 9.12.7 as 013694. (7pp1014)

HESS/ ★ D22 B/26 ★SW 7712-3

Wound dressing compsn. including water-soluble alginate and sa which react to produce water-insoluble alginate upon contact w water

HESSELGREN S G 02.11.77-SW-012360

*A96 P34 (11.06.79) A61l-15/**

The compsn. becomes a dressing for a wound upon conta with water. Its main components are a water-soluble alginate and a salt that react to produce a water-insolubl alginate.

The reaction occurs when water is added and/or when the compsn. makes contact with the fluid of the wound. 2.11.77 as 012360 (-pp1407)

AVTE- D22 79979U/52 = US RE30-02

Liquid absorbing fibrous mass - eg non-woven cushion

AVTEX FIBERS INC (FMCC) 05.06.72-US-259944 (27.08.75-U 608304)

*A96 F04 P34 +P32 (12.06.79) *NL7307-655 A61f-13/20*

A mfd. article comprises a highly absorbent mass of dry alkaline alloy fibres comprising a matrix of regenerated cellulose and dispersion of polyacryln acid salt of alkali metals or ammonium. The salt is present in an amt. of 5-35 wt.% w.r.t. the cellulose.

Pref. the fibres have a lubricating finish of a partial higher fatty and ester of sorbitan in mannitan or of a poly oxyethylene deriv. Specifically the articles is in the forn of pad or tampon. 27.8.75 as 608304 Reissue of 384428 (4pp964).

CARL/ ★ D22 48855B/26 ★US 4157-69

Fly ash-based animal litter pellets - contg. fibrous liquid channellin component e.g. paper pulping waste

CARLBERG G 31.08.77-US-829347

P14 (12.06.79) A01k-29

Animal litter comprises a pelleted mixt. of flyash and ≥ wt.% of a liquid flow channelling component which is a fib -ous material, clay, vermiculite, perlite or powdered ag -icultural waste. The pellets have a major dimension gr -ater than the size of the particles forming the channels a each pellet contains pathways allowing liquids to penetrate rapidly to its interior.

The material uses cheap materials and waste prods. Pref. the pellets are of size 2-12mm. The channel forming component is pref. cellulose fibre produced in papermaking, having dia. < 0.1mm and length 0.3-10mm. 31.8.77 as 829347 (6pp955).

MILP- ★ D22 48864B/26 ★US 4157-78

Vaporisable material dispenser - with removable sealing layer ove porous material closing container top

MILPAK INC 23.08.77-US-827022

P34 (12.06.79) A61l-09/04

A dispenser for material vaporising on exposure to the atmosphere, e.g. for an air freshener, has a flange around a top opening, material with fine apertures fixed to the flange and covering the opening, and a nonporous layer of the same size as and secured to the upper side of the

The layer is removable from the material when the dispenser is to be used. 23.8.77 as 827022 (4pp1358).

)I D22 06406A/04 =US 4158-001

organo-tin derivs. of hydroxy-diazenium oxide(s) - for use as gicides, esp. wood preservatives

BASF AG 24.07.76-DT-633452

*C01 E12 F09 +P63 (12.06.79) *BE-857-034 A01n-09/20 +B27k-03/34 C07c-111 C07c-113/04*

iorgano Sn cpds. a hydroxydiazenium oxide of formula $(R)_3Sn-O-N=N(\rightarrow O)-Y$ (where each R is independently 12C alkyl or phenyl and Y is alkyl or cycloalkyl) are nov . (I) are active against wood destroying and-discolour- fungi and soft rot and mould fungi. e.g. Meruluis lac-mans. Sclerophorna pityophila, Phoma Viblaceo, etc.

Specific, cpds. are the tributyl, triphenyl or tripropyl cpd. of N-cyclohexylhydroxydiazenium oxide. 10.6.77 805404 (4pp393).

AST- ★ D22 48946B/26 ★US 4158-040

erilisation appts. with work chamber received within media amber - to permit rapid establishment of desired environment om outside media chamber

AMER STERILIZER 20.03.78-US-888571

P34 R16 (12.06.79) A61l-03/02 B01j-03/04 G01n-01/02

A rapid sterilisation evaluator and tert appts. comprises a media chamber having an opening in one side to receive a work chamber. A check valve connects the work and media chambers. A piston in the work chamber includes a support for an article to be sterilised and also includes an extension for operating the check valve when the piston is pushed into the work chamber. This operation permits atmospheric conditions in the media chamber to enter the work chamber.

Used for steam sterilisation of articles. The valve can be operated from outside the media chamber when the work chamber is sealed so that the media conditions can be almost instantly established in the work chamber. 20.3.78 as 888571 (4pp1044).

See Also

D16 BE 872916 D21 DT 2756256

D23: OILS; FATS; WAXES

ENK ★ D23 47163B/26 ★BE-872-943

5,5-Tri:methyl hexanoic acid ester(s) used as aromatic materials - sp. methyl and ethyl ester(s) in perfumes and cosmetic products

HENKEL KG AUF AKTIEN 23.12.77-DT-757559

E17 (D21 D25) (21.06.79) A61k C07c

he esters have formula $(CH_3)_3CCH_2CH(CH_3)CH_2COOR$ (I) where R is 1-5C aliphatic hydrocarbon residue). They re used in perfume compsns.

Apart from perfumes, (I) may be used in cosmetic creams, lotions, toilet water, aerosols, toilet soap, washing and cleaning products, disinfectants, and textile treatment products. The pref. cpds. are with R methyl and ethyl. The amt. used in perfume compsns. is pref. 1-50%. 21.12.78 as 872943 (6pp597)

HAL ★ D23 47241B/26 ★BE-874-363

ndustrial plant to dry and cool processed sunflower seeds, etc. - ses atmospheric air in fluidised bed exhausting via predryer

VEB SCHWERMASCH THALMANN 24.02.78-SU-587461

(D14) (18.06.79) A23n C11b

A plant installation for drying and cooling vegetable oil-producing seed, partic. ground sunflower seed, after the seed has been subjected to a heating/wetting process, is of the type in which seed is dropped through a predrying chamber and from there to an air-fluidised, circular bed in the base of an upwardly divergent cyclone. Cyclone air is exhausted via the predrying chamber. The fluidised bed conveys the prod. over an annular, horizontal path and then drops it into a discharge screw conveyor.

The predrying chamber now contains adjustable, slatted screens, i.e. 'venetian' type, by which the angle of air flow w.r.t. prod. flow can be regulated, e.g. between 0-90°. Inside the cyclone, an upwardly convergent cone leads exhaust air towards the predryer connection which has helical slots back into the convergent cone. The fluidised bed air chest has a downwardly convergent cone connected into the top of the discharge screw conveyor.

This dryer/cooler is also for oatmeal, pearl barley, etc. The single, much more compact plant can process 500 tonnes in 24 hrs., compared with 200 tonnes from earlier, larger installations. Prod. quality is enhanced by much more homogeneous treatment. Atmos. air used as the cooling/drying medium is filtered through incoming seed in the predryer. This cleans the exhaust and raises prod. yield by eliminating loss of fines. 22.2.79 as 874363 (13pp448)

UNIL D23 64805R/36 =DS 1812-204

Phosphatide separation process

UNILEVER NV 01.12.67-GB-054905

*E11 (D13) (21.06.79) *ZA6807-765 +C07f-09/10*

A purified non-acylable phosphatide, e.g. lecithin, is recovered from its mixts. with cephalin. The cephalin is acylated with an acylating mixt. contg. a nitrogen base at a pH of ⩾ 8.5 under aq. conditions and then extracted with acetone or methyl acetate. The nitrogen base pref. acts as acylation catalyst and may be ammonia, di- or tri-methylamine, etc.

The purified phosphatide is a better emulsifier than phosphatide contg. cephalin. 2.12.68 as 812204(7pp68)

UNIL D23 39003T/24 =DS 2159-614

Transesterification of triglycerides - using aliphatic ketone to accelerate rate of reaction

UNILEVER NV 04.12.70-GB-057648

*E17 (21.06.79) *BE-776-260 C07c-67/02*

Fatty acid glyceride mixts. are interesterified at -30° to 150°C with alkali catalysts. in the presence of 0.2-50 wt. % of an aliphatic monoketone, esp. acetone, based on the glyceride mixt.

The ketone increases the speed of reaction. Vegetable and animal fats, e.g. palm oil or lard may be treated. 1.12.71 as 159614(6pp68)

BADI ★ D23 47300B/26 ★DT 2755-945

Hydroxy-citronellol prepn. by hydrating citronellol - in aq. soln. contg. alpha-methyl-branched alkanol in contact with cation exchanger

BASF AG 15.12.77-DT-755945

E17 (21.06.79) C07c-29/04 C07c-31/20 C11b-09

Hydration of citronellol (II) (3,7-dimethyl-oct-6-en-1-ol) to hydroxy-citronellol (I) (3,7-dimethyl-octane-1,7-diol) takes place by treating a homogeneous soln. contg. 0.1-10 (1.5) 1 water/kg (II) as well as an α-Me-branched prim., sec., or tert. 3-5C alkanol (III) with a strongly acid cation exchanger at 40-120 (50-90)°C. The reaction mixt. is then worked up by distn. to recover (I).

(I) is an odoriferous material and can be used as an intermediate in the prepn. of the perfume hydroxycitronellal. Process is simple and cheap, giving 40-70 (50-65) % conversion and > 90% yields. Unreacted raw material, water and (III) are recycled. The cation exchanger can be regenerated. 15.12.77 as 755945 (8pp200)

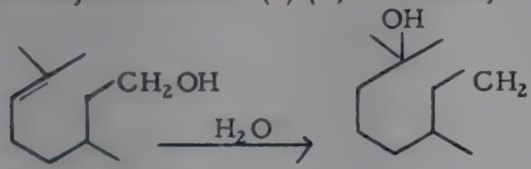
DEGS ★ D23 47301B/26 ★ DT 2755-949
Beta-phenylethyl alcohol prodn. from phenyl-glycol - by hydrogenating in presence of platinum gp. metal and halogen cpd.; used in perfumery
DEUTSCHE GOLD & SILBER 15.12.77-DT-755949
E14 (21.06.79) C07c-29 C07c-31/16

Prodn. of β-phenylethylalcohol (I) comprises hydrogenation of phenylglycol (II) in the presence of (a) a Pt-group metal and (b) of HF, HCl, HBr, Cl_2, Br_2 or a Cl or Br cpd. (organic or inorganic) which is reducible or hydrolysable under the reaction conditions. Pref. reaction is carried out in the presence of 1-12 moles water per mole (II), in addition to water formed during the reaction, and 0.002-1.3 g halo cpd. (calculated as HCl) is used per mole (II). Pref. hydrogenation is at < 100°C and < 20 atmos. excess of H_2.

The halogen component increases the rate of reaction and permits use of lower temp. and pressure. The only significant impurity is the easily-sepd. ethylbenzene (formation suppressed when water is present) only traces of α-phenylethylalcohol being formed. 15.12.77 as 755949 (14pp1251)

BADI D23 47300B/26 = EP ---2-498
Hydroxy-citronellol prepn. by hydrating citronellol - in aq. soln. contg. alpha-methyl-branched alkanol in contact with cation exchanger
BASF AG 15.12.77-DT-755945
*E17 (27.06.79) *DT2755-945 C07c-29/04 C07c-31/20 + C11b-09*
D/S: E(CH, DT, FR, GB, NL).

Hydration of citronellol (II) (3,7-dimethyl-oct-6-en-1-ol) to hydroxycitronellol (I) (3,7-dimethyl-octane-1,7-diol)



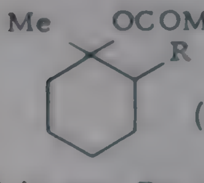
(II) (I)

is effected by treating a homogeneous soln. contg. 0.1-10 (pref. 1-5) l. water/kg (II) as well as an α-methyl-branched prim., sec. or tert. 3-5C alkanol (III) with a strongly acid cation exchanger at 40-120 (pref. 50-90)°C. The reaction mixt. is then worked up by distn. to recover (I).

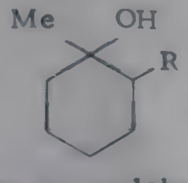
(I) is an odoriferous material and can be used as an intermediate in the prepn. of the perfume hydroxycitronellal. The process gives 40-70 (esp. 50-65)% conversion and >90% yields. Unreacted starting material, water and (III) are recycled. The cation exchanger can be regenerated.
7.12.78. as 101591 (10pp200).
(G) ISR: J5225704; US 3257469; US 3285977. 2 Journal Reference.

GIVA ★ D23 47481B/26 ★ EP ---2-510
1-Methyl-1-acetoxy-cyclohexane derivs. - used as amber perfumes e.g. in cosmetics
GIVAUDAN L & CIE SA 30.10.78-CH-011175 (12.12.77-LU-078670)
E15 (27.06.79) C07c-29 C07c-35/08 C07c-67/08 C07c-69/14 C11b-09
Full Priorities: 12.12.77-LU-78670; 30.10.78-CH-11175.
D/S: E(BE, CH, DT, FR, GB, IT, NL).

Cyclohexane derivs. of formulae (I) and (II) are new



(I)



(II)

(R is sec. Bu, tert. Bu or cyclohexyl).

(I) are perfumes with an amber nuance. They are esp. useful in perfume compsns. to give an amber top note, but since they are not too volatile, the nuance also remains in the bottom note. They can be used in cosmetics, soaps, detergents, smoking articles, deodorants, shampoos, toilet

natural and synthetic perfumes. (II) are intermediate (I).
11.12.78 as 101620 (27pp941).
(G) ISR: DT2317000; 1 Journal Reference.

AJIN ★ D23 47637B/26 ★ J5 406
Antioxidant for oils and fats - comprising phytic acid (salt) and acid ester of sorbitan or glycerine
AJINOMOTO KK 22.10.77-JA-127072
E11 (D13 E17) (15.05.79) C09k-15 C11b-05

An antioxidant for oils and fats consists of a mixt. of tic acid or its salt and a fatty acid ester of sorbitan o glycerin or their mixt.

An effective antioxidant with high safety is provided is suitably used in the field of foodstuff industry. In a example, 50wt.% aq. soln. of phytic acid was mixed wi a fatty acid ester of sorbitan having 4.3 HLB in 1:3 pro portion by mole to obtain an antioxidant. 22.10.77 as 127072. (7pp126)

TAKS ★ D23 47788B/26 ★ J5 4061
Citronellic acid prodn. - by oxidative dehydrogenation of citrone or citronellol using copper-zinc or copper-chromium catalyst
TAKASAGO PERFUMERY KK 24.10.77-JA-126826
E17 (17.05.79) B01j-23/76 C07c-51/26 C07c-57/02

Prodn. of citronellic acid comprises subjecting citrone and/or citronellol to an oxidative dehydrogenation catal ed by a Cu-Zn or Cu-Cr catalyst at 200-250°C under a atmospheric pressure in the presence of NaOH and a s vent.

Citronellic acid is known as a perfume and a germic al agent. The present process is characterised by its high yield, low cost and easy operations.

The Cu-Zn catalysts and the Cu-Cr catalysts are co mercially available. Generally, the ratio of the catalys to the starting material is 0.5-5wt.%, and 1-1.5 moles NaOH are used per mole of citronellal or citronellol. the reaction solvent, a liq. paraffin is used because of high b.pt. Usually, 0.5-3 pts. of the liq. paraffin are used per 1 pt. of citronellal or citronellol. The reactio is effected at 200-250°C, pref. 230°C, until the H_2 evol tion is finished. Generally, it takes 2-3 hrs. 24.10.7 as 126826. (3pp16)

TAIY ★ D23 47980B/26 ★ J5 4062-
Improvement of flavour of palm oil - involves hydrogenation nickel catalyst on graphite, prior to use in decolouring deodorising treatment of the oil
TAIYO YUSHI KK 28.10.77-JA-129301
(19.05.79) C11b-03/02 C11c-03/12

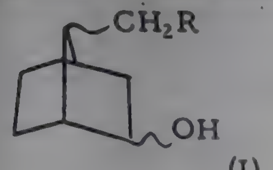
Before decolourisation and deodourisation, palm oil is hydrogenated using a Ni catalyst carried by graphite. R fined palm oil having favourable colour tone, high resis tance to rancidification and low revivability to its origin odour is obtd.

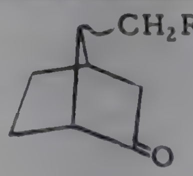
Carotinoid colouring matter in palm oil is converted effectively by the hydrogenation of palm oil using 0.03-0 wt.% of Ni catalyst which is carried by graphite before i is decoloured and deodourised at 180-220°C under 1-5 kg cm^2 of hydrogen pressure, (i.e., content of remaining β carotine is reduced to < 10 ppm). In an example, a mix of Ni and graphite (i.e., content of Ni is desirable to be 18-25wt.%) is chlorinated by chlorine gas, then it is reduced using reducing agent, (e.g., hydrogen, Li-Al hydride, sodium borohydride, metallic sodium). 28.10.77 as 129301. (7pp170)

SAGA ★ D23 48156B/26 ★ J5 4063-0
2-Hydroxy-7-alkyl-bi:cyclo(2.2.1)heptane(s) prodn. - for use aromatising components for perfumes, by reducing 7-alk nor:camphane
SAGAMI CHEM RES CENTRE 28.10.77-JA-128723
E15 (21.05.79) A61k-07/46 C07c-35/28 C11b-09

2-Hydroxy-7-alkylbicyclo[2.2.1]heptanes of formula (I) (where R is 2-7C alkyl) are prepd. by reducing the corre ponding 7-alkylnorcamphane of formula (II).

Specifically


(I)


(II)

(II) are produced by condensing cyclopentadiene with inexpensive aldehydes, and clisation-adding 2-chloroacrylonitrile to the fulvenes erived above, catalytically hydrogenating and saponifying e adducts. (I) have a flower-like aroma. They are sed as the aromatising matters for soaps, detergents, erfume, etc. (I) are stable to O_2, sunshine, temp. and umidity, partic. to acids and alkalis. They do not irritte the skin. 28.10.77 as 128723. (6pp136)

AGA ★ D23 48157B/26 ★J5 4063-062

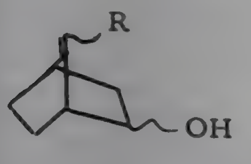
Hydroxy-7-alkylidene:bi:cyclo(2,2,1)heptane prodn. - by reducing alkylidene:nor:camphane, used in perfume compsns.

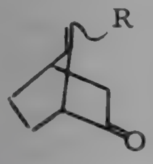
SAGAMI CHEM RES CENTRE 28.10.77-JA-128724

E15 (21.05.79) A61k-07/46 C07c-35/28 C11b-09

-Hydroxy-7-alkylidenebicyclo/2.2.1/heptanes, of formla (I), are produced by reducing 7-alkylidenenorcamphne of formula (II), (where R is 2-7C alkyl). Perfume ompsns. contain (I) as aromatising component.

(II) are produced by condensing cyclopentadiene with heap aldehydes, and cyclisation-addn. of 2-chloroacrylonitrile to the fulvenes derived above, catalytic hydrogenation and saponification of the adducts.


(I)


(II)

The pref. reducing agent is hydrogenated sodium borate. The redn. is performed by adding the cpds. and reducing agents to inert solvents (e.g. ether, THF, methanol), and stirring the mixts. at -30 to 60°C, pref. room temp.

The present cpds. have a flower-like aroma. They are used in soap, detergent, perfume, etc. (I) are stable to oxygen, light, temp., humidity, and partic. acids and alkalis. They do not irritate the skin. 28.10.77 as 128724. (5pp136)

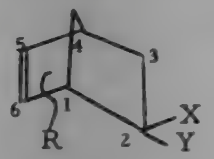
SAGA ★ D23 48158B/26 ★J5 4063-063

Carbonyl or hydroxyl substd. alkyl-norbornene derivs. - useful in perfume compsns.

SAGAMI CHEM RES CENTRE 28.10.77-JA-128725

E15 (21.05.79) A61k-07/46 C07c-35/28 C07c-49/54 C11b-09

Norbornene derivs. of formula (I) are new. In (I), R is 3-8C alkyl; R is located at posn. 1, 4, 5 or 6; X and Y combine with carbon of the second posn., to form a carbonyl gp., or one of X and Y is OH gp. and the other is H. The perfume compsns. contg. (I) as aromatising component are claimed.



(I)

The alkyl-5-norbornene-2-ols are produced by (1) alkylation and cyclisation-addn. of Na salt of cyclopentadiene, (2) saponification of the prod. in DMSO, etc., and (3) redn. of the alkyl-5-norbornene-2-ones obtd. with reducing agents (pref. hydrogenated sodium borate) in inert solvents (e.g., ether, methanol) with stirring. The cpds. have flower-like aroma. They are used in soaps, detergents, perfume, etc. The cpds. of (I) are stable to oxygen, sunshine, temp. and humidity, partic. to acids and alkalis. They do not irritate the skin. 28.10.77 as 128725. (7pp136)

NISW D23 52247A/29 =J7 9013-442

Fluidity of fats and oils - is improved by maintaining temp. of fused oils between m. pt. and solidification point and stirring

NISSHIN OIL MILLS KK 25.11.76-JA-140735

*(31.05.79) *J53065-308 C11b-03/16*

Fluidity improvement of fats and oils comprises maintaining for cooling the fats and oils fused by heating at a temp. between m. pt. and a solidifying pt. where adequate stirring is effected to allow crystals to deposit and disperse adequately.

The fused fats and oils are maintained at a temp. for a period of > 6 hrs. Process improves the fluidity of fats

solid or less fluid at ambient temp. e.g. palm oils, cotton seed stearin, and hydrogenated oils and fats, to such an extent that they may be pumped. Process requires simple procedures, being run at reduced costs, and produces no by-prod. and not adding any additives or liq. oils maintains the compsn. of the original oils, thus retaining well the good oxidn. stability.

The process, probably changing the peritectic situations under the specified conditions, improves the fluidity, opening new applications for the fats and oils being solid or less fluid at room temp. 25.11.76 as 140735, C11b-3/16 (31.5.79) NISSHIN OIL MILLS KK (3pp) (J5 3065308)

NISW D23 52248A/29 =J7 9013-443

Improving fluidity of fats and oils - by fractionating into a solid and liq. portion and remixing without fusing and under stirring

NISSHIN OIL MILLS KK 25.11.76-JA-140736

*(31.05.79) *J53065-309 C11b-03/16*

Method comprises fractionating the fats and oils into a liq. and a solid portion, and remixing the solid portion with the liq. portion without fusing and under stirring. Fractionation is effected by solvent fractionation, detergent method, etc. pref. at a temp. resulting in deposition of 5-30% crystals.

The process improves the fluidity of fats and oils without adding additives or other oils and without any by-prod. produced. Suitable fats and oils are palm oils, cotton seeds and hardened oils. The fats and oils may be pumped, while retaining their improved oxidn. stability. 25.11.76 as 140736, C11b3/16 (31.5.79) NISSHIN OIL MILLS KK (3pp) (J5 3065309)

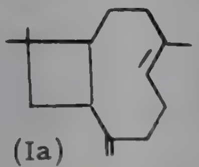
FIRM D23 62495W/38 =J7 9013-488

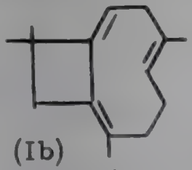
Aroma substance from caryophyllene and/or humulene - by reaction with formic acid

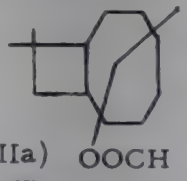
FIRMENICH & CI 07.03.74-CH-003196

*B07 E15 +P15 (31.05.79) *DT2440-024 A61k-07/46 C07c-69/06*

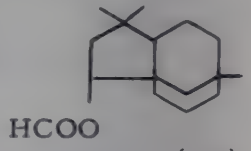
(A) an aroma or flavour substance is prepd. by reacting caryophyllene (Ia) and/or lumulene (Ib) with formic acid to form a prod. contg. mainly 4,4,8-trimethyltricyclo/6,3,1,$0^{2,5}$/dodec-1-yl formate (IIa) and 4,4,8-trimethyltricyclo/6,3,1,$0^{1,5}$/dodec-2-yl formate (IIb).


(Ia)


(Ib)



(IIa)



(IIb)

(B) cpd. (IIa) and (IIb) are new.

The prod. has a sweet, fine-wood aroma and can be used in perfumes, foodstuffs, tobacco prods. drinks and pharmaceutical prods. 5.9.74 as 102459 (clg. 7.3.74-CH-003196) A61k-7/46, C07c-69/06 (31.5.79) FIRMENICH & CIE. (5pp) (J5 0117763)

ASAE D23 91387X/49 =J7 9014-124

Solvent separation of fat - to remove high boiling point components such as tri-saturated glycerides

ASAHI ELECTROCHEM IND KK 14.04.75-JA-045049

*(05.06.79) *J51119-706 C11b-07*

Method to separate high boiling point components, such as tri-satd. glyceride, from fat to obtain pure fat, comprises cooling fat contg. 1.0-30 mol % of tri-satd. glyceride in the presence of 0.05-0.7 pts. wt. of a solvent at a cooling rate of 0.03-0.09°C/min. to crystallise >80% of high boiling point substances contg. the glyceride, adding the solvent so as to be 0.4-4 times by weight larger than the solvent of the former process, and rapidly cooling it to crystallise the residual substances.

The solvent used is acetone, methyl ethyl ketone, or n-hexane. 14.4.75 as 045049, C11b-7/00 (5.6.79) ASAHI DENKA KOGYO K (7pp) (J5 1119706)

ALBR D23 48231R/27 =NL-160-483

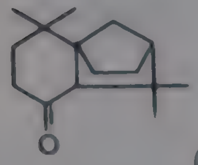
Perfumery comp containing ketone - derived from isolongifolene

BUSH BOAKE ALLEN LT (BUSB) 30.10.67-GB-049247

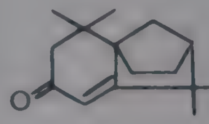
*E15 (15.06.79) *GB1197-579 A61k-07/46 C11b-09 +C07c-49/36*

A perfume prepn. is prepd. by mixing (a) ≥1 keto deriv. obtd. by oxidn. of isologifolene, where the deriv. has

(b) ≥1 other cpd. suitable for use in perfumes, but not a usual solvent.



(I)



(II)

The derivs. have a scent similar to that of vetiver oil, vetiverol or vetiveryl acetate. They are cheaper than the vetiver perfumes. Isolongifolene is pref. oxidised by acie soln. of a Cr(VI) cpd. at < 50°C. The ketones (I) and (II) may be sepd. but are pref. used as a mixt. The amt. is 0.1-15-(0.5-10)wt.% w.r.t. the perfume prepn. Ionone cpds. and/or musk cpds. are pref. used.

The perfume prepns. are used in cosmetics, room sprays, detergents or toiletries, or for the scenting of fibres, fabrics and paper prods. 30.10.68 as 015455. (9pp510)

INPR= ★ D23 48572B/26 ★SU -621

Proportional integral control system for ester oils distiller - output from transducer in correcting circuit to distillation regulator controlling valves

IND PROCESSES AUTOM 02.02.77-SU-448291
(12.08.78) C11b-09/02

Known control system for continuous distillation of ess tial or ester oils ensures regulation of distillate temp. water vapour pressure and the distillation rate. Now t increase the oil output, the raw-material fill-factor is regulated and vapour feed emergency interlock and a correcting circuit are provided. Water-vapour feed i varied by a proportional integral law.
Chkoniya, K.P., Akopashvili, G.P., Yasamanov, E.A et al. Bul. 32/30.8.78. 2.2.77. as 448291 (3pp840)

See Also

D13 NL 160606 D13 US 4157984 D15 J5 406216

D24: SOAP; SOAP DETERGENTS

UNIL D24 61193R/34 =DS 2007-557

Superfatted toilet soap comprising a soap and - detergent which is not of the soap class

UNILEVER NV 20.02.69-GB-009220
*E17 (D25) (21.06.79) *BE-746-329 +C11d-01/37*

Toilet soap comprises a mixt.of an alkali sulphate of a primary alcohol (I) and free fatty acid. 10-75% of alcohol (I) has the formula $CH_3(CH_2)_nCHR-CH_2OH$ (where n = 7-14; R = 1-4C aliphatic gp. and total number of C atoms = 11-18). The rest of the alcohol present is unbranched and of similar carbon number. When the alkali sulphate content ⩽ 30% (based on wt of sulphate + soap) the potassium ion content is 20-85 wt.% of the sulphate. When the alkali sulphate content > 30% the potassium ion content is 6-25.5%

The soap produces a large amt. of creamy foam when the K ion content lies between the specified limits. 19.2.70 as 007557(5pp68)

UNIL D24 61193R/34 =NL -160-610

Superfatted toilet soap comprising a soap and - detergent which is not of the soap class

UNILEVER NV 20.02.69-GB-009220
*E17 (D25) (15.06.79) *BE-746-329 +C11d-09/48 C11d-10/04*

A piece of superfatted toilet soap is prepd. by forming a mixt. of an alkali metal soap, a free fatty acid and an alkali metal alkyl sulphate mixt. in which 10-75 moles-% has the formula $CH_3-(CH_2)_n-CH(R)-CH_2-OSO_3M$, where M is Na or K; n = 7-14; R is a 1-4C aliphatic residue and the total number of C atoms is 11-18, and the rest consists of unbranched alkyl sulphates with the same number of C atoms, followed by forming the mixt. into a piece of soap.

The alkali metal soap and/or alkyl sulphate mixts. consist partly of K salts, such that the amt., calculated as K alkyl sulphate, is (a) 20-85wt.% of the alkali metal alkyl sulphates if the piece of soap contains ⋟30wt.% alkali metal alkyl sulphates, or (b) 6-25.5wt.% of the total am of soap and alkali metal alkyl sulphates if the piece of soap contains > 30wt.% alkali metal alkyl sulphates.

The toilet soap has better foam properties, as regar both vol. and creaminess of the foam, an acceptable rat of wear, and a pleasant feel. The soap is pref. derived from an 8-24C monocarboxylic acid (mixt.). The free acid is esp. the same as the acid from which the soap is derived; the amt. is ⋟15(4-10)wt.%. The alkyl sulpha is partic. derived from a 12-15C alcohol in which R is CH_3. 16.2.70 as 002120. (6pp510)

UNIL D24 61194R/34 =NL -160-61

Toilet soap (opt super fatted) comprising - soap and alkylsulphate

UNILEVER NV 21.02.69-GB-009415
*E17 (15.06.79) *BE-746-330 +C11d-10/04*

A piece of soap for cleansing the skin contains (a) 42-82 wt.% of tallow soap, expressed as anhydrous soap, and (3-50wt.% of a water-soluble alkali metal salt of the parti sulphate from (i) a 7-14C prim. or sec. branched alkanol in which the longest chain is 5-9C, or (ii) an oxyethylatio prod. of this alkanol with ⋟6 moles ethylene oxide,

The soap has better foaming properties, and is cheape than a tallow/coconut soap. Water forms ⋟20wt.% of th soap. The soap may be super-fatted by addn. of ⋟30(5-25)wt.% of a 10-24C satd. or mono-unsatd. fatty acid with out affecting the foam prodn. 20.2.70 as 002392. (6pp51

D25: OTHER DETERGENTS

LABO ★ D25 47162B/26 ★BE -872-938

Surfactant compsn. for treating oil slicks and beaches - contg. liquid and solid surfactants, glycol ether s), and paraffin(s)

LABOFINA SA 27.12.77-FR-039425
A97 H03 (D15) (21.06.79) C02c C11d

The compsn. for collecting or dispersing oil slicks on the water or to protect or clean beaches comprises (a) a mixt. of ≥1 solid surfactant cpd. and ≥1 liq. surfactant cpd. and (b) a solvent mixt. of a glycol ether and 10-16C n-

The solid surfactants are pref. sorbitan monoesters of 16-20C satd. aliphatic carboxylic acids esp. 16-25% base on (a). Liq. surfactants are pref. sorbitan monoesters of 10-20C aliphatic carboxylic acids or monoesters of polyethyleneglycol with the same acids.

The compsn. can serve the dual purpose above and als satisfies all the seven criteria stated to be effective on solid as well as liq. substrate, whereas up to now proposed compsns. have not satisfied all the criteria. 21.12.78

★ D25 47208B/26 ★BE -873-051
detergent compsn. esp. for dish washing - contg. at least two
ified surfactants and at least five per cent citrus juice
NILEVER NV 22.12.77-GB-053472
97 E19 (A25) (22.06.79) C11d

compsn.comprises 5-60% of a synthetic surfactant
tem of $\geqslant$2 surfactants and 5-50% of a citrus juice. The
factant system contains (1) 30-90 pts. of a surfactant,
sitive to Ca, chosen from (8-16C alkyl)-benzenesulphon
es; 8-20C olefine sulphonates; di-(8-20C alkyl) sulpho-
cinates; di(6-12C alkyl) phenolsulphosuccinates; 8-20C
mary and secondary alkyl sulphates; (8-20C alkyl)-
yethoxy-sulphates with 1-25 ethoxy gps. and mixts. of
se.(2) 70-10 Pts. of a less Ca sensitive surfactant from
0 times alkoxylated cpds., pref. ethoxylated or pro-
ylated, derived from 8-24C aliphatic or alkylaromatic
ls. contg. an active H, pref. comprising an OH, NH_2,
NH_2, or COOH gp.; (8-20C alkyl)-sulphobetaines; amine
des contg. a 10-28C alkyl radical and 1-4C alkyl or
droxyalkyl radicals; (8-20C alkyl)polyethoxy-sulphates
ntg. 1-25 ethoxy gps. and mixts. of these. The surfac-
ts are in to form of alkali metal, ammonium, alkyl-
monium or alkanolammonium salts.

The washing-up compsn. has good foaming properties
d is more effective than present compsns. against diffi-
lt stains such as dried or cooked starch or protein.
.12.78 as 873051 (17pp597)

NA D25 81621T/52 =DS 2225-793
imary and secondary phosphate esters of organic hydroxy compds
s non-ionic surfactants
GAF CORP 26.05.71-US-147221
*E11 (21.06.79) *DT2225-793 C07f-09/12 + C08g-79*

mixt. of primary and secondary phosphate esters is
btd. by a continuous process in which P_2O_5 in dry, solid
rm or as a dispersion in an inert, organic diluent is
upplied to a reaction zone at a rate of 0.007-0.3 mols/
in. At the same time an organic hydroxy cpd, capable of
eacting with P_2O_5 to form a phosphate is supplied at a
ate of 0.005-0.2 mols/min. Reaction is carried out at
etween room temp. and 130°C and the homogeneous mixt.
f phosphates obtd. is withdrawn at a rate of 0.005-0.2
ols/min. The rates of supplying reactants and withdraw-
ng product are maintained at a constant value.

The esters, e.g. ethoxylated nonylphenoyl phosphate,
re obtd. in good yield and may be used as emulsifiers,
etergents etc. 26.5.72 as 225793(6pp68)

XC D25 46057W/28 =DS 2461-072
imary sec. alkylamines prepn. from N-paraffins - by continuous
ulti-stage nitration, hydrogenation and separation
TEXACO INC 26.12.73-US-428553
*A25 B05 E16 (21.06.79) *BE-823-731 C07c-85/11 C07c-87/06*

he continuous prodn. of sec. alkyl prim. amines comp-
ises heating 6-30 C n-alkanes, (1 mole), with gaseous
itrogenating agents, (largely N oxides, 0.03-0.4 mole),
t 120-260°C, (pref. 132-205°), followed by catalytic
ydrogenation of the resulting nitro cpds.

The reaction is pref. conducted in 2-4 zones, such that
$\ngtr$25 wt% conversion to nitro cpd. occurs, (pref. < 20 wt
%). 23.12.74 as 461072(7pp47)

HENK D25 77549Y/44 =DS 2618-977
Liquid scouring type cleaning compsn. - contg. crsitobalite, surfactant, thickener and vehicle in specified amts.
HENKEL KG AUF AKTIEN 29.04.76-DT-618977
*A97 (21.06.79) *BE-854-051 C11d-01*

A liquid scouring detergent compsn contains (a) 30-60 wt% cristobalite of particle size 5-150 μ (b) 1-10 wt.% anionic and/or zwitterionic and/or nonionic detergent(s) (c) 0.1-2 wt.% of a water soluble polycarboxalate organic polymer e.g. copolymer of acrylic acid and polyallylpolysugar, and (d) 27-68.9 wt.% liquid carrier, e.g. water.

The cristobalite has excellent scouring properties. 29.4.76 as 618977(6pp68)

HENK ★ D25 47356B/26 ★DT 2756-583
Bleaching compsn. for textiles - contains peroxy-carboxylic acid or precursors and bis:styryl-di:phenyl optical brightener
HENKEL KG AUF AKTIEN 19.12.77-DT-756583
E19 F06 (21.06.79) D06l-03

Bleach for textile treatment comprises (a) as per cpd. (I) $\geqslant$1 peroxycarboxylic acid or their precursors and (b) as optical brightener a salt of 4,4'-bis-(3-sulpho-4-chloro-styryl)diphenyl (II). (II) is 0.01-0.5 wt. pts. per wt. pt. available peroxy oxygen.

Pref. (I) are 6-12C diperoxydicarboxylic or 1-3C peroxymonocarboxylic acids, or as precursors a mixt. of Na perborate with tetracetylalkylenediamines or tetraacetylglycoluril. Opt. a water-soluble salt of 4,4'-bis-(2-sulpho-styryl)diphenyl (III) is included as additional brightener at (II) : (III) wt. ratio 20 : 1-1:20, esp. 9:1-1:1.

Used in detergent formulations. (II) and (III) are stable in presence of peroxy cpds. 19.12.77 as 756583 (16pp1251)

BENC ★ D25 47367B/26 ★DT 2756-732
Free-flowing granulate contg. poly:phosphate and aluminium silicate - is prepd. by slowly adding water to component powder mixt.
BENCKISER J A GMBH 20.12.77-DT-756732
E34 (E33) (21.06.79) C11d-07/60

Granulate contains a partly or completely hydrated alkali polyphosphate, (I), and a water-insoluble ion-exchanging alkali Al silicate (II). The granulate is prepd. by slowly spraying water, as a fine haze, with good further mixing, onto the powdery mixt. of an anhydrous (I) and (II).

The granulate may be added to cleanser and detergent compsns. Slow hydration prevents caking of granulate and yields a free-flowing granulate, free from coarse granulate and dust. The prods. can be stored and are readily rinsed out in use. 20.12.77 as 756732 (10pp200)

ALBR ★ D25 47415B/26 ★DT 2853-171
Prepn. of conc. surfactant mixt. forming liq. lamellar phase - by forming one surfactant in presence of other surfactant(s) and water
ALBRIGHT & WILSON LTD 26.05.78-GB-022992 (09.12.77-GB-051293)
E19 (21.06.79) B01f-17

Prepn. of a conc.aq. surfactant compsn. contg., as active ingredient, a mixt., (A), of $\geqslant$2 non-homologous surfactants, each in $\geqslant$5 wt.% concn., w.r.t. mixt. (A), comprises starting from an initial mixt. contg. $\geqslant$1 component of the surfactant mixt. and also sufficient water, to keep the mixt. in liq. condition, and $\geqslant$1 further surfactant component present as a precursor, (I), capable of being formed in aq. soln. by means of a reagent which causes no degradation of the other surfactants in mixt. (I) is liq. under the reaction conditions. At least one of these cpds. (I) is converted to the surfactant so that the finished compsn. is present in G-phase.

The mixts. are easily obtd. in the G-phase. 8.12.78 as 853171 (+ 7.2.78, 26.5.78 - GB - 004817, 022991)(48pp200)

SAOK ★ D25 47638B/26 ★J5 4060-304
Safe, non-polluting, non-foaming detergent - comprising sodium carbonate soln., lignin compsn. and glycerine
SANYO KOKUSAKU PULP (SEKI-) 20.10.77-JA-125137
E17 F09 (E34) (15.05.79) C11d-07/60

A harmless, pollutionless, and foamless water saving detergent consists of Na_2CO_3 soln. lignin compsn., and glycerin. Sodium phosphate is also used in the detergent. The lignin compsn. used is the waste liq. consisting of a salt of lignin sulphonic acid obtd. by the digestion of wood using bisulphite, or a partly sulphonated prod. of the lignin sulphonate.

No synthetic detergent is used in this detergent but the detergency is superior to prior detergents. It does not cause the chapping of the skin and is not poisonous even when it is taken orally. As it generates no foam, saving of the washing water is attained. No pollution is caused by the waste water of this detergent. 20.10.77 as 125137. (4pp126)

AJIN ★ D25 47790B/26 ★J5 4061-118
Flake-like n-acyl aminoacid alkali metal salt prodn. - by addn. of higher alcohol or higher fatty acid or their derivs. to aq. soln. or suspension of the salt; used in detergent mfr.
AJINOMOTO KK 22.10.77-JA-127071
E12 (17.05.79) C07c-103/48 C11d-01/10

Prepn. of flake-like N-long chain acyl acidic amino acid alkali metal salt, comprises adding a small amt. of a higher alcohol, higher fatty acid, higher alcohol ester of a higher fatty acid, higher fatty acid amide or higher fatty acid ester of a polyhydric alcohol to an aq. soln. or suspension of N-long chain acyl acidic amino acid alkali metal salt (I), and drying the mixt. in a drum-drier. Pref. 0.1-10wt.% additive are used relative to (I).

A solid-type detergent shaped from flake-like non-crystalline powder prepd. by this method has a soft feeling when used. 22.10.77 as 127071. (3pp75)

NIEM- ★ D25 48126B/26 ★J5 4062-991
Oil soluble surfactant - contg. N-long chain acyl neutral aminoester as active component
NIPPON EMULSION KK 00.00.78-JA-124603 (11.09.73-JA-102504)
A25 E16 (E14) (21.05.79) A61k-07/02 C08k-05/16 C11d-01/66 C11d-09/30 D06m-13/40

The agent contains N-long chain type acyl neutral aminoester of acyl gp. of 6-22C as an active component, where the aminoester is an ester of N-long chain type acyl neutral amino acid (I) and alcohol selected from multivalent alcohol (II), polyoxyalkylene multivalent alcohol ether (II), or multivalent alcohol or polyoxyalkylene multivalent alcohol fatty acid ester contg. free OH gp.

(I) is N-long chain type acyl-glycine, γ-amino butyric acid or ε-amino caproic acid. The multivalent alcohol is ethylene glycol, propylene glycol, 1,4-butanediol, glycerine, trimethylolethane, or trimethylol propane. The polyoxyalkylene multivalent alcohol ester is polyoxyethylene multivalent alcohol ether, polyoxypropylene multivalent alcohol ether, or polyoxybutylene multivalent alcohol ether. The multivalent alcohol fatty acid ester is ethylene-glycol fatty acid ester, glycerin fatty acid ester, polyoxyethylene multivalent alcohol fatty acid ester, or polyoxypropylene multivalent alcohol fatty acid ester. 11.9.73 as 124603/78, Div.ex 102504/73. (5pp51)

SHIV ★ D25 48139B/26 ★J5 4063-021
Purifying sulphuric ester salts of higher alcohol(s) - or high alcohol-ethylene oxide adducts, by adding hydrogen peroxide (salt) and/or peroxy acid (salt
NEW JAPAN CHEM 26.10.77-JA-129053
E17 (D21) (21.05.79) C07c-139/14 C07c-141

Sulphuric ester salts of higher alcohols or higher alcohol-ethylene oxide adducts are purified by adding H_2O_2 (salt) and/or peroxyacids (salt).

Process removes the reducing S cpds. which cause malodour, change of aroma and decolourisation. Prods. have improved stability towards perfuming and dyeing components, and are used esp. as base for detergents and shampoos. 26.10.77 as 129053. (2pp136)

TSUR ★ D25 48176B/26 ★J5 4063-106
Non-toxic, gelatinous hand cleanser prepn. - from ethanol, Japanese agar, glycerine or propylene glycol, surfactant, sodium- or propylene glycol alginate, water etc.
TSUMURA JUNTENDO KK 29.10.77-JA-129228
A97 E17 (21.05.79) C11d-11/04

The compsn. is prepd. by mixing 10-50 pts.wt. ethanol, 0.1-5 pts.wt. Japanese agar, 0.5-10 pts.wt. glycerin or propylene glycol, 0.1-4 pts.wt. surfactant used in food processing, 0.05-2 pts.wt. sodium alginate or propylene glycol alginate, 30-80 pts.wt. water, and opt. pigment, perfume, adhesion promoter, germicidal agent, preservative, etc.; dissolving them to form a homogeneous soln.; and cooling.

The compsn. is harmless, even if it is not rinsed out. It can be used safely in places where water cannot be obtd. 29.10.77 as 129228. (4pp170)

AJIN ★ D25 48177B/26 ★J5 40
Rust and scale removing cleaning compsn. - comprising o acids component of aminoacid fermentation, sepd. b exchange or electrodialysis
AJINOMOTO KK 29.10.77-JA-129242
B05 C03 M12 (D13 D16) (21.05.79) C11d-11/04

A cleaner for rust and scale removing is prepd. from organic acids component which is sepd. by ion exchan or by electrodialysis from hydrolysate of vegetable p teins or waste liquor of amino acids fermentation, an then concd.

Vegetable protein may be soybean cake, peanut cak sunflowers seed cake, etc. are used. Amino acids co tained in the hydrolysate of these materials are sepd. the adsorption with ion exchanging resin and utilised a flavouring, medicine and feed, but unadsorbed matter are rejected uselessly though organic acids are pres These waste materials (contg. levulinic acid, lactic a citric acid, succinic acid, acetic acid and formic acid are now utilised effectively. 29.10.77 as 129242. (4p

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DAIK ★ D25 48178B/26 ★J5 4063
Cleaning soln. for removing oily abrasive - prepd. by emulsi water in petroleum and/or halogenated hydrocarbon solvent
DAIKIN INDUSTRIES KK 29.10.77-JA-129912
E19 (21.05.79) C11d-07/50

The cleaning liq. is prepd. by emulsification of 0.5-30 20)wt.% water in W/O type in petroleum solvent and/o halogenated hydrocarbon in the presence of an emulsify agent.

Emulsifying agent may be an anionic, cationic, noni or amphoteric surfactant. The petroleum solvent may gasoline, naphtha, benzene or n-hexane. The halogena hydrocarbon may be methylene chloride, trichloroethyl ene, perchloroethylene, 1,1,1-trichloroethane, trichlo monofluoromethane or 1,1,2,2-tetrachloro-1,2-difluor ethane. 29.10.77 as 129912. (3pp170)

NISC ★ D25 48179B/26 ★J5 4063-
Creamy cleansing compsn. - contains straight chain sodi alkylbenzene sulphonate, anionic and/or nonionic surfactant builder, giving improved cleaning power
NISSAN CHEM IND KK 31.10.77-JA-130594
A97 E12 (E34) (21.05.79) C11d-10/02

The compsn. consists of (A) straight chain sodium alky benzenesulphonate, (B) anionic and/or nonionic surfacta (C) Na tripolyphosphate, (D) Na sulphate and (E) Na car bonate in quantities of (A)+(B)+(C)+(D)+(E) = 60-65wt.%, (A) = 20-40wt.%, (B) = 0-5wt.% and (A)+(B) = 20-40wt.% (C) = 15-35wt.%, (D) = 0-15wt.% and (E) = 0-15wt.%.

Stable creamy cleaner having high cleaning power is obtd. Unlike in the prepn. of powdery or granular clean drying procedure is needless. Sodium tripolyphosphate, Na_2SO_4 and Na_2CO_3 are blended as the builders to impro cleaning power, and sodium pyrophosphate and sodium orthophosphate are substitutable for a part of sodium tri polyphosphate. The components other than (A), (B), (C) (D) and (E) are water, 1-3wt.% of carboxymethylcellulo a small amt. of fluorescent bleaching agent, etc. 31.10.77 as 130594. (4pp170)

KAOS D25 03971Y/03 =J7 9013-4
Detergent compsn. contg. 3 alkyl ether sulphates - with excelle rinsing props. and hard water resistance
KAO SOAP KK 04.09.75-JA-107367
*E12 (E16) (31.05.79) *BE-845-798 C11d-01/29*

Detergent compsn. comprises 0.5-60 wt % sulphate ether surfactant consisting of (A) a mixt. of alkylether sulphate of formulae (I) and (II), with > 70 wt % (I) $R_1O(CH_2CH_2)O_n$ SO_3M (I) $R_2CH(R_3).CH_2.O(CH_2CH_2O)_nSO_3M$ (II) (R_1 = linea 6-15C linear alkyl, R_3 = 1-4C linear alkyl, the fragment $R_2CH(R_3)$ has 8-13C n = 0.5-1.5 (mean value) M = water-solubilising cation chosen from alkali(ne earth) or alkali(earth) or alkanolamines) and (B) a linear alkylether sulph of formula (III) $R_4O(CH_2CH_2O)_mSO_3M$ (III) (R_4 = satd. linea alkyl with ≥ 80 wt % 18C, m = 1-50 (mean value)).

The ratio (A):(B) is 95:5-5:95 and the balance of the compsn. is water soluble anionic (other than ether sulpha nonionic or amphoteric surfactants, alkaline or neutral questrants, solubiliser and/or water.

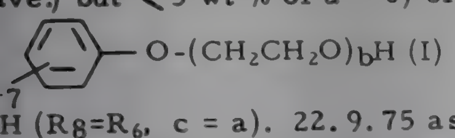
Compsn. has excellent cleaning power, rinsing propert- and resistance to hard water. The amt. of Na tripolyph-phate (IV) needed can be reduced or completely eliminat- 4.9.75 as 107367, C11d-1/29 (31.5.79) KAO SOAP KK p) (J5 2030806)

OS D25 31975Y/18 = J7 9013-445

. detergent compsn. - is mild on the skin, and shows good aning, foaming and viscosity

KAO SOAP KK 22.09.75-JA-114576
*A97 E19 (31.05.79) *J52038-508 C11d-01/94*

e compsns. are composed of (A) a polyoxyethylene alkyl her sulphuric acid ester salts contg. ethylene oxide and ving 8-12C alkyl radicals in ave. addn. molar nos. of 1-5,) alkylbetaines of formula: $R_1-N^{\oplus}R_2R_3-CH_2-CO-O^{\ominus}$ here R_1 is 10-18C alkyl, R_2 and R_3 are 1-3C alkyl) or tty acid ethanolamides of formula: $R_4-CO-NR_5-CH_2CH_2-$ H (R_4 is 8-18C alkyl, R_5 is H or hydroxyethyl(, and (C) non-ionic surfactants of formula $R_6O\left(CH_2CH_2O\right)_aH$ here R_6 is straight or branched 8-18C alk(en)yl, a = 1-4 ve.) but < 5 wt % of a = 0) of formula (I)



$-O-(CH_2CH_2O)_bH$ (I) (R_7 is straight or branched 6-10C alkyl, b = a) or of formula $R_8COO(CH_2CH_2O)_c$ H (R_8=R_6, c = a). 22.9.75 as 114576 C11d-1/94 31.5.79) KAO SOAP KK (6pp) (J5 2038508)

OY D25 29126U/21 = J7 9014-075

urface active agents - purified from non-converted oils by mixing ith polyalcohols or polyethers and stripping

LION FAT & OIL KK 05.11.71-JA-087682
*E17 (04.06.79) *DT2253-896 C11d-01/12*

urface active agents, useful as additives to emulsifiers, osmetics, tooth-pastes and as liq. detergents, are prepd. y mixing a neutralised cpd. or > 2 such cpds. as obtd. by eutralisation of sulphonates or sulphates of 12-22C olefins 12-22C paraffins or of a monohydric aliphatic 8-22C alcohol, with 0.1-10 (1-5) wt. pts./wt. of neutralised cpd/s. of a polyhydric alcohol, polyoxyalkylene alkyl ether and/or polyoxyethylene alkylphenol ether, and stripping the resulting liq. mixt. in order to extract the non-converted oil present.

Stripping may be effected in a flash evaporator, pref. at 10-200 (20-150)°C and 2-670 (50-350) mmHg. 5.11.71 as 087682, C11d-1/12 (4,6.79) LION FAT & OIL CO. LTD. (4pp) (J4 8052687)

SNAM D25 80866U/52 = J7 9014-093

Alkali metal alkyl-sulphonate prepn. - from alakli metal bisulphites and olefins

SNAMPROGETTI SPA 21.06.72-IT-025984
*E12 (05.06.79) *BE-801-097 C07c-139/12 C07c-143/02 +B01j-23/34*

Reaction is effected in a solvent consisting of a mixt. of water with ≥ 1 alcohol in the presence of O_2 or a gas contg. O_2, the transition metal promoter comprising ≥ 1 cpd. of a Gp. I, VII or VIII metal, pref. of Cu, Mn, Fe or Co. Products esp. those derived from 10-20C olefins are white, non-hygroscopic, have good detergent powder, are non-toxic and are completely biodegradable. 21.6.73 as 069281 (clg. 21.6.72-IT-025984) C07c-139/12, 143/02, B01j-23/34 (5.6.79) SNAM PROGETTI SpA (6pp) (J4 9062417)

KAOS ★ D25 48297B/26 ★ J7 9014-125

Cleaning compsn. for diesel engine superchargers - contains adducts of prim. of sec. aliphatic alcohol(s) with ethylene oxide

KAO SOAP KK 24.04.74-JA-046181
A97 E17 Q52 (05.06.79) C11d-01/72 F02b-39/16

Adducts of prim. or sec. 10-18C aliphatic alcohols with 5-8 moles ethylene oxide were used to clean superchargers. Thus, poly(oxyethylene) oleyl ether was used to clean a supercharger. 24.4.74 as 046181, C11d-1/72, F02b-39/16 (5.6.79) KAO SOAP CO. LTD. (4pp38) (J5 0139105)

HENK D25 30515X/17 = NL-160-607

Powdery detergent contg. water-insoluble silicate - of boron or aluminium, and soap, is prepd. by atomisation of silicate enriched slurry

HENKEL KG AUF AKTIEN 10.10.74-OE-008150
*E37 (15.06.79) *DT2545-190 C11d-03/12*

A powder washing compsn. contg. (A) a finely-divided, water-insoluble synthetic cpd., contg. combined water and with a Ca-binding capacity of $\nless$ 50 mg. CaO/g. anhydrous active material, with formula $(Kat_{2}/_{n}O)_x \cdot Me_2O_3 \cdot (SiO_2)_y$, where Kat is a cation with valency n, exchangeable with Ca; x = 0.7-1.5; Me is B or Al; and y = 0.8-6; (B) 2.2-10wt.% of soap; and (C) surfactants which are not the same as (B), builders and auxiliaries, is prepd. by (a) spray-drying to a free-flowing powder, a mixt. of (A) and $\ngtr$ 2.5wt.% of (B), and opt. other components, and (b) mixing this powder with a powder, opt. also prepd. by spray-drying, which is free from (A) and contains the remaining components, including the residual amt. of (B).

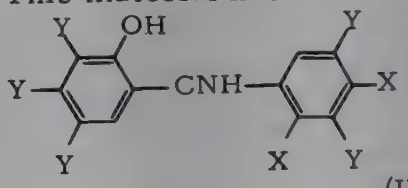
The free-flowing powder compsn. is easily wetted. Less water is used in the spray-drying than when (A) and (B) are pre-mixed before spraying; there is therefore less energy consumption. Pref. the surfactant is at least partly nonionic, and is included in (A). The powder rich in (B) may contain ≥1wt.% of a non-soap surfactant. 29.9.75 as 011460. (6pp510)

PROC D25 38120F/00 = NL-160-608

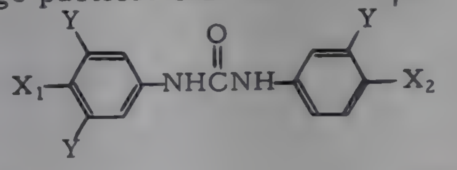
Cleaning agents containing antibacterials

PROCTER & GAMBLE CO 11.12.67-US-689349
*A97 B05 +P34 (15.06.79) *NL6817-719 C11d-03/48 +A61k-07 A61l-13 C11d-09/50*

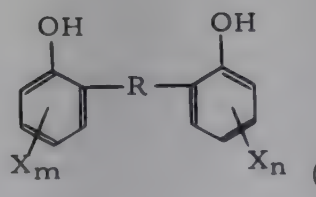
Cleaning agents (I) are prepd. by mixing 2-95wt.% of organic surface-active material, 0.1-10wt.% polyethylene imine or its ethoxylated form prepd. by reacting polyethyleneimine and ethyleneoxide is a wt. ratio of min. 1:4; 0.1-10wt.% in total of one or more water-insoluble or -little soluble materials with antibacterial properties, chosen from (a) substd. salicylanilides of formula (II): (where X is H or halogen; Y is H, halogen or trifluoromethyl); (b) substd. carbanilidenes of formula (III): (where X_1 is halogen or ethoxy; X_2 is H or halogen); or (c) substd. bisphenols of formula (IV): (where X is halogen; n is 1, 2 or 3; R is (1-4C)alkylene or bivalent-S). This material has an average particle size of 0.2-30μ.



(II)



(III)



(IV)

(I) greatly increases the deposition and retention of finely divided antibacterial materials on washed surfaces. They may be used in shampoos, soaps, strong-acting textile washing agents, etc. 10.12.68 as 017719. (6pp279)

BENC D25 69520V/40 = NL-160-609

Alkaline, non-pollutant dish rinsing compn. - contg. polycarboxylic acids or salts with citric acid replacing polyphosphates

BENCKISER J A GMBH 09.05.73-DT-323355
*(15.06.79) *BE-814-783 C11d-07/14*

Dish-washing compsn., free from N and P, contains (a) 5-35wt.% of a mixt. of (I) citric acid and (II) cyclohexane-1,2,3,4,5-pentacarboxylic acid and/or cyclohexane-1,2,3,4,5-pentacarboxylic acid-1-methylene carboxylic acid, or their alkali metal or ammonium salts, in a wt. ratio of 35-5:1; (b) 95-55wt.% of water-soluble alkaline cpds.; (c) 0-5wt.% of a cpd. which releases active Cl; and (d) 0-5wt.% of an antifoam agent.

Compsn. has a high cleansing power, is non-corrosive and resistant to hydrolysis, and does not damage the pattern on crockery. It is used in dish-washers. Typically, a dry compsn. contains (a) 20-35wt.% polycarboxylic acids with wt. ratio of (I):(II) of 5:1, (b) 50-80% alkali metal cpd., pref. a silicate, and (c) and (d). A liq. compsn. contains (a) 10-30wt.% acids with a wt. ratio of (I):(II) of 5:1, (b) 2-30% alkali metal cpd., (d) 0-5% antifoam, and (e) 60-80% water, alcohol and auxiliaries. 29.4.74 as 005763. (6pp510)

CIBA ★ D25 48349B/26 ★RD -182-017

Di:potassium salt of 4,4-bis-(4-chloro-3 sulphostyryl) bi:phenyl - used as optical brightener in washing powders

CIBA GEIGY AG 20.05.79-RD-182017

*E24 (10.06.79) C11d-00/**

The dipotassium salt of 4,4'-bis-(4-chloro-3-sulphostyryl) biphenyl is used as optical brightener in washing powders. It is colourless and easily prepared and does not colour the powder in an undesirable way, unlike many of the alkali and amine salts. (903)

CIBA ★ D25 48363B/26 ★RD -182-041

Aq. bleaching and disinfecting baths for cotton fabrics - contain photoactivator mixts. of zinc and aluminium phthalocyanine sulphonic and derivs.

CIBA GEIGY AG 20.05.79-RD-182041

*E23 F06 R23 (10.06.79) G03c-00/**

Photoactivator mixts. of $ZnPc(SO_3H)_{3-4}$ (I) (where Pc is phthalocyanine) and $AlXPc(SO_3H)_{3-4}$ (II) (where X is an a anion) are used in aq. baths for bleaching and disinfecting fabrics.

(I) and (II) have different reactivity. Use of specific (I) and (II) mixt. ratios can adjust the bleaching behaviour of a detergent under (a) different light conditions, e.g. more (I) is needed on exposure to weak light and more (II) on exposure to strong light; and (b) at different pH e.g. (I) is more active at pH 7-9. (II) at medium and high pH. Combination of (I) and (II) allows the removal of stubborn stains e.g. apricot or peach stains. The mixts. can be used for washing 'in stationary baths' under exposure to light. (I) and (II) have high anti-microbial activity. (200)

BALA/ D25 74442Y/42 =SU -621-675

Alkali metal alkyl-sulphonate polymerisation emulsifiers - and detergents prepd. by neutralising degassed reaction mixt. obtd. in linear paraffin sulphoxidation (NL 7.10.77)

BALAKIREV E S 05.04.76-SU-343735

*A60 E12 (29.08.78) *DT2715-069 C07c-143/02*

Alkyl-sulphonic acid alkali metal salts are used as emulsifying agents in polymerisation processes and in mfr. of synthetic detergents.

They are prepd. by sulphoxidation of corresp. 11-18C n-paraffins including degassing the resulting reaction mixt. contg. sulphonic acid sulphuric acid n-paraffins, sulphur dioxide and water , sepn. of unreacted n-paraffins, neutralisation with aq. alkali soln. sepn. of crystalline alkali metal sulphate and removal of final prod.

The prod. purity is increased if degassed reaction mixt. is first neutralised followed by the sepn. of n-paraffins at 100-100°C and 1-6 atmos. (pref. 120-140°C/2-4.5 atmos). The remaining soln. is treated with low mol. alcohol (pref. ethanol or isopropanol) using soln. alcohol ratio of 1: (1-1.5). The alkali metal sulphate is sepd. at 5-10°C and unreacted n-paraffins are recirculated.

Balakirev, E.C., Bogomolova, G.I., Gershenovich, A.I et al. Bul. 32/30.8.78. 5.4.76. as 343735 (3pp938)

AMHP ★ D25 48892B/26 ★US 4157-921

Thixotropic pump sprayable oven cleaning compsn. - contg. emulsion of acrylic acid ethylene copolymer

AMERICAN HOME PROD CORP 13.02.78-US-877584

A97 P43 (A14 A17) (12.06.79) B08b-09 C11d-07/06

A pump sprayable thixotropic oven cleaning compsn. contains water, 1-7% NaOH, KOH or LiOH, 0.2-5% of a first thickener,0.01-1% surfactant,1-15% humectant, 1-20% organic solvent and 0.5-10% of a thixotropic emulsion of an acrylic acid/ethylene copolymer (I) as second thickener.

The compsn. is liquid after shaking and sprayable
-out use of propellants, but sets on the walls of an ove
13.2.78 as 877584 (4pp955).

CHEM- ★ D25 48920B/26 ★US 415

Detergent-germicide compsns. - contg. antimicrobial ph
hydroxyacetic acid, and detergent surfactant

CHEMED CORP 27.10.76-US-735995 (13.02.70-US-011328)

E19 (12.06.79) C11d-03/48 C11d-07/08

The compsn. contains: (a) 2.4-30 pts. by wt. of an ant
crobial phenol (I); (b) 1-36 pts. of $HOCH_2CO_2H$ (II); and
2-30 pts. of a detergent surfactant of formula (III);
R_1R_2CHO-$(CH_2CH(R_3O)_nMX$ (III) (where M=sulphate or
phosphate; R_1=1-20C hydrocarbon alkyl; R_2 = H, 1-20C
hydrocarbon alkyl; $R_1+R_2 \ngtr$ ca 20C; R_3=H or Me; n has a
-age value 0.5-20; X=H, alkali metal, NH_4 or triethanc
mine).

(I) is PhOH substd. by 2-Ph, 2-$PhCH_2$-4-Cl, 2-cycl
pentyl-4-Cl, 4-Cl-2-Ph, 6-Cl-2-Ph, 4-t-amyl, or 4-t
2,2-methylene-bis(2,4,6-trichlorophenol); 4-Cl-m-xyl
or dichloro-m-xylenol.

Compsns. have significant antimicrobial activity ag
st Staph. aureus, Pseudomonas pyocyaneus, M. tuberc
osis, and pathogenic fungi in H_2O, even with low (I) co
In addn. the compsns. cause little skin irritation, and
-ke known phenolic compsns) do not darken on exposure
to heat or light. 27.10.76 as 735995 (11.11.75, 2.7.74
US-630868, 485184) (5pp478).

PROC ★ D25 48921B/26 ★US 4157-

Capped silicate cpds. - useful as detergency builders, corro
inhibitors, and structure formers for detergent compsns., etc.

PROCTER & GAMBLE CO 13.03.78-US-885932

A26 E11 M14 (12.06.79) C07f-07/02 C11d-03/08 C11d-11/04

New capped silicates are of formula (I) $M_{(o-1)}[O$-(Si(O
O)-$_n]$ $(TR_2)_{(1-2)}$ (where each M is H, Na, K or mixts.;
=2-1000; T is Al, Ti, Zn, Zr, Sn, V, Mo, W, Se, Ge c
mixts.; and R is 2-30C acyl contg. 0-5 additional CO_2H
grps).

(I) are useful as detergency builders, corrosion inhi
tors, and structure formers, etc., in formulating dete
gent compsns. Unlike known silicates, (I) have a reduc
tendency to polymerise further and cross-link and henc
form insol. prods. In addn., spray-dried detergent gr
ules contg. (I) are less hygroscopic, more free-flowing
and firmer than conventional granules. 13.3.78 as 8859
(8pp478).

TEXG ★ D25 48948B/26 ★US 4158-

Soda ash prodn. from ore - with different purity prods. fr
separate process streams with an without recycled mother liquor

TEXASGULF INC 18.01.78-US-870580

E34 (12.06.79) C01d-07

Purified satd. Na_2CO_3 soln. prepd. from alkali metal ca
bonate-contg. mineral, pref. trona is crystallised for s
ash prodn. by (a) dividing soln. into ≥2 separate strean
(b) crystallising Na_2CO_3-contg. crystals from first
stream in absence of recycled mother liquor, (c) crysta
ising Na_2CO_3-contg. crystals from the second stream in
the presence of recycled mother liquor and (d) separatel
processing crystals from each stream to produce soda a
prods. of different purity.

The prod. from (b) has high purity and is useful for N
silicate or detergent mfr. The prod. from (c) allows hi
-er yields to be obtd. through recycling of mother liquor
and is of a suitable density for glass mfr. 18.1.78 as
870580 (7pp091).

See Also

D21 US 4157920 D22 DT 2853119 D23 BE 872943
D24 DS 2007557 D24 NL 160610

CPI INDEXES

LERTING PATENTEE INDEX (II)

ekly by section and overall, lists all current patents in entee code order and, within a given patentee, in earliest ority date order. The first line gives patentee code, liest priority date, patentee name, CPI classes and finally current patent number. The second line gives the first t of the title, followed by the accession number.

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EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
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Not in Basic Abstracts Journal

PI CLASS INDEX (IV)

eekly only. Headings are all the CPI asses within the section to which an erting Bulletin relates, arranged in umerical order. Posted under each class eading is a list, in country then patent umber order, of all basic or equivalent ocuments referenced or cross-eferenced under that heading.

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M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
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In Country Alerting Bulletin only

BASIC NUMBER INDEX (V)

Veekly by section and overall, lists all ntries by accession number. Each eading consists of the accession umber in bold, followed by the CPI ection letters. There then follows a st of all the family members, ommencing with the basic and inishing with the current week's atent. For each family member the CPI week of issue is quoted, and a lus sign indicates that a multiple riority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

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CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                              49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                         49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                              48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
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In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguishe accepted West German specifications (DAS) from th unexamined applications (OLS) which are given the norma DT code. in the case of Japan J5 represents th unexamined applications, and J7 the examined of th present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7

Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

ABE- 09.12.77 KONINK AABE FAB A96 D22 F07 (A18) *NL 7713-694
Absorbent underlay sheet impermeable to discharged body fluids - 48338B/26
BBO 31.03.75 ABBOTT LABORATORIES B04 D16 =J7 9014-190
Urokinase prodn from a contiguous live kidney cell culture - 05275X/03
BBO 19.10.77 ABBOTT LABORATORIES A60 C02 D22 E13 =J5 4063-071
Bactericidal and fungicidal 2-methyl-1-naphthyl maleimide - 19938B/10
BBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 *BE -872-911
2-Acyl or alkyl-epi-fortimicin derivs. - 47151B/26
BBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 *BE -872-912
2-Deoxy-fortimicin B and its precursors - 47152B/26
BBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 *BE -872-913
N-acylated fortimicin E derivs. - 47153B/26
BBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 *BE -872-914
2-Acyl or alkyl fortimicin derivs. - 47154B/26
BBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 *BE -872-915
Antibiotic iso:fortimicin with broad-spectrum antibacterial activity - 47155B/26
BBO 21.12.77 ABBOTT LABORATORIES B03 D16 E13 (D22) *BE -872-916
Amino:glucoside antibiotic fortimicin E - 47156B/26
CHI- 22.03.78 ACHIMER SIMONSBROT D11 *DS 2812-543
Swollen germinated whole cereal grain prepn. for bread mfr. - 47253B/26
CHI- 22.03.78 ACHIMER SIMONSBROT D11 *DS 2812-544
Pre-swelling whole cereal grains for bread mfr. - 47254B/26
GEN 27.10.77 AGENCY OF IND SCI TECH A89 B04 D16 J04 *J5 4061-984
Electrochemical determn. of alcohol concn. in soln. - 47924B/26
JIN 08.05.74 AJINOMOTO KK D16 =J5 0142-763
Beer yeast extract prepn. - 48311B/26
JIN 08.05.74 AJINOMOTO KK D16 *J7 9014-176
Beer yeast extract prepn. - 48311B/26
JIN 18.10.77 AJINOMOTO KK B05 D16 (B04) *J5 4061-128
Peptide deriv. used as enzyme substrate - 47795B/26
JIN 22.10.77 AJINOMOTO KK D23 E11 (D13 E17) *J5 4060-303
Antioxidant for oils and fats - 47637B/26
JIN 22.10.77 AJINOMOTO KK D25 E12 *J5 4061-118
Flake-like n-acyl aminoacid alkali metal salt prodn. - 47790B/26
JIN 26.10.77 AJINOMOTO KK B05 D16 E16 *J5 4062-388
L-Glutamine prodn. by fermentation - 48058B/26
JIN 29.10.77 AJINOMOTO KK B05 C03 D25 M12 (D13 D16) *J5 4063-107
Rust and scale removing cleaning compsn. - 48177B/26
ALBR 30.10.67 BUSH BOAKE ALLEN LT D23 E15 =NL -160-483
Perfumery comp containing ketone - 48231R/27
ALBR 01.04.74 BUSH BOAKE ALLEN B05 D22 E15 =IT 1030-481
Optically active perillyl ester prodn. - 69271W/42
ALBR 18.08.77 ALBRIGHT & WILSON LTD D21 E16 (D25) =J5 4063-081
Surfactant N-carboxy-alkylated acylated ethylene di:amine cpds. - 18420B/10
ALBR 09.12.77 ALBRIGHT & WILSON LTD D25 E19 *DT 2853-171
Prepn. of conc. surfactant mixt. forming liq. lamellar phase - 47415B/26
ALFA 16.02.73 ALFA-LAVAL AB B04 C03 D13 =SU -622-423
Catalase determination in biological fluids, pref milk - 47183V/26
ALFA 07.03.74 ALFA-LAVAL AB D13 =DS 2502-664
Sepn of skimmed milk from milk or cream - 41024W/25
ALGI 25.03.74 ALGINATE INDUSTRIES LTD A97 D13 =IT 1030-411
Water-dispersible protein-alkylene glycol alginate reaction prod - 67677W/41
ALGI 20.05.79 ALGINATE INDUSTRIES LTD A97 D13 *RD -182-037
Setting batter contg. soluble alginate salt - 48359B/26
ALGI 20.05.79 ALGINATE INDUSTRIES LTD A97 D13 *RD -182-038
Oil saturated crumb coating of food - 48360B/26
ALKU 29.11.76 AKZO NV A11 D22 F06 =OE 7708-094
Regenerated cellulose fibres with high liq. absorbing capacity - 40702A/23
ALKU 01.12.76 AKZO NV A11 D22 F01 (A14 A96) =OE 7708-095
Absorbent cellulose fibres for nappies, tampons etc. - 42467A/24
*ALST 21.09.77 ALSTHOM-ATLANTIQUE D15 *FR 2403-981
Partial purificn. of effluents in station - 47560B/26
AMAN 11.01.73 AMANO PHARM KK D16 E23 =J7 9013-513
Novel pigment Red W59 - 26499W/16
*AMHP 13.02.78 AMERICAN HOME PROD CORP A97 D25 (A14 A17) *US 4157-921
Thixotropic pump sprayable oven cleaning compsn. - 48892B/26
AMMA 04.09.70 AMF INC D18 =DS 2143-089
Tobacco leaf inspection - 38990U/28
*AMST- 20.03.78 AMER STERILIZER D22 *US 4158-040
Sterilisation appts. with work chamber received within media chamber - 48946B/26
AMSU 19.01.68 AMER SUGAR REFINING CO D17 #IT 1030-004
Granular free-flowing (brown) sugar prodn - 69358S/44
ANIS 21.09.77 ANIC SPA B05 D21 (D22) =FR 2403-797
Mosquito-repellent agents - 24240B/13
*ANON 20.05.79 ANONYMOUS D15 E34 *RD -182-047
Compsn. for treating sanitary waste - 48368B/26
ASAE 14.04.75 ASAHI ELECTROCHEM IND KK D23 =J7 9014-124
Solvent separation of fat - 91387X/49
*ASAG 21.10.77 ASAHI GLASS KK D15 J01 M11 *J5 4060-759
Treatment of heavy metal-contg. effluent - 47717B/26
*ASAH 24.10.77 ASAHI CHEMICAL IND KK D21 (D17) *J5 4062-328
Cosmetic additive for improving adhesion, lubricity etc. - 48047B/26
*ASMI= 03.03.77 AS USSR MICROBIOL B04 D16 (D13 D18) *SU -621-724
Lipase prodn. from fungus Oospora fragans Berkh - 48575B/26
AVTE- 27.08.75 AVTEX FIBERS INC A96 D22 F04 =US RE30-029
Liquid absorbing fibrous mass - 79979U/52
*AZAR/ 14.12.77 AZAROV N N D15 J03 *DT 2755-729
Water desalination cell - 47279B/26

BADI 03.02.68 BASF AG C03 D22 E19 F09 =DS 1717-103
Less odorous more stable non-aq antiparasitic compns - 07165H/00
BADI 29.01.75 BASF AG B05 C03 D21 E16 =CA 1056-402
N-Alkyl-glycine nitriles prepn - 61708X/33
BADI 24.07.76 BASF AG C01 D22 E12 F09 =US 4158-001
Tri:organo-tin derivs. of hydroxy-diazenium oxide(s) - 06406A/04
BADI 09.08.77 BASF AG D16 E19 F06 (E37) =DS 2735-816
Peroxide bleaching of textile material contg. cellulose - 09987B/06
BADI 23.09.77 BASF AG D25 E16 =FR 2404-043
Stabilising nonionic surfactant against alkali discolouration - 23957B/13
BADI 06.10.77 BASF AG A26 D15 E16 H07 (A97 D22) =J5 4062-300
Poly:alkylene poly:amine prepn. - 31930B/17
*BADI 15.12.77 BASF AG D23 E17 *DT 2755-945
Hydroxy-citronellol prepn. by hydrating citronellol - 47300B/26
BADI 15.12.77 BASF AG D23 E17 =EP ---2-498
Hydroxy-citronellol prepn. by hydrating citronellol - 47300B/26
BALA/ 05.04.76 BALAKIREV E S A60 D25 E12 =SU -621-675
Alkali metal alkyl-sulphonate polymerisation emulsifiers - 74442Y/42
BATT 22.09.77 BATTELLE DEV CORP C03 D16 =FR 2403-744
Viral and bacterial microbial insecticide micro-granule - 23954B/13
BAUM- 15.12.77 BAUMGARTNER PAPIERS D18 F04 =DT 2802-576
Cigarette filters prodn. - 29786B/16
BAUM- 15.12.77 BAUMGARTNER PAPIERS D18 F04 =GB 2010-067
Cigarette filters prodn. - 29786B/16
*BAYE- 16.12.77 BAYERISCHE PFLUGFAB D14 *GB 2010-109
Fodder mixing trailer with lateral discharge openings - 47589B/26
*BECK/ 16.12.77 BECK C D22 J04 *DT 2756-164
Determination of number of particles in air - 47317B/26
BEEC 13.10.75 BEECHAM GROUP LTD B02 D16 =OE 7607-532
Prodn. of clavulanic acid and its salts - 25256Y/15
*BEEC 12.11.77 BEECHAM GROUP LTD B02 C02 D22 *EP ---2-564
3-Hydrocarbyl:sulphinyl-7-oxo-1-aza bi:cycloheptene derivs. - 47511B/26
BEHA/ 08.12.77 BEHAM H D15 =EP ---2-490
Sewage aerator impeller - 76588A/43
BEHW 14.04.76 BEHRINGWERKE AG B04 C03 D16 =DS 2616-407
Antirabies vaccine prodn. by growing virus in fibroplasts - 74169Y/42
BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 =FR 2403-796
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04
*BEIE 16.02.78 BEIERSDORF AG A96 D22 L02 *BE -874-237
Plaster compsn. contg. strongly crosslinked polyvinyl ester - 47216B/26
BENC 09.05.73 BENCKISER J A GMBH D25 =NL -160-609
Alkaline, non-pollutant dish rinsing compn. - 69520V/40
BENC 21.12.76 BENCKISER J A GMBH D15 E15 =OE 7709-136
Compsn. for preventing lime deposition in aq. systems - 30297A/17
*BENC 20.12.77 BENCKISER J A GMBH D25 E34 (E33) *DT 2756-732
Free-flowing granulate contg. poly:phosphate and aluminium silicate - 47367B/26
*BIOL- 03.11.77 BIOLOGISK AVFALLSHA D16 *SW 7712-416
Rubbish composting appts. with rectangular composting container - B/26
*BIOO= 15.07.76 BIO-ORG CHEM INST B04 D16 J04 *SU -621-680
Acid proteinase enzyme immobilisation on silica carrier - 48532B/26
BIOR- 14.12.77 BIO RES CENTER KK D16 E17 =DT 2853-847
Microbiological prepn. of mono and/or di:carboxylic acids - 45675B/25
BIOR- 14.12.77 BIO RESEARCH CENTER D16 E17 =GB 2010-264
Microbiological prepn. of mono and/or di:carboxylic acids - 45675B/25
BLAN/ 22.09.77 BLAND B J C03 D13 E17 =FR 2403-749
Particulate compsn. for preserving agricultural products - 87894A/49
BLGN 26.09.77 BELGONUCLEAIRE D15 K07 =FR 2403-980
Treating water contaminated radioactively, chemically or biologically - 25181A/14
BLUE- 08.03.76 BLUE WING CORP C03 D13 =OE 7701-554
High lipid feed supplement for ruminants, dogs, cats, fish etc. - 52219Y/30
*BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) *BE -872-891
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BOEF 09.06.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 =OE 7702-340
Substrates compsn. or enzymatic activity evaluation - 81194Y/46
BOEF 09.12.77 BOEHRINGER MANNHEIM GMBH B04 D13 E13 J04 =NL 7805-172
Colorimetric assay of ascorbic acid - 89647A/50

BOEF 14.12.77 BOEHRINGER MANNHEIM GMBH B04 D16 =EP ---2-438
Storage-stable cholesterol:oxidase preparations - 56929A/32
BONE- 10.03.75 BONETTI FRERES SA D21 #IT 1030-302
Cosmetic based on embryonic nektones - 49392W/30
BORS/ 22.12.76 BORST A H D15 J01 #US 4157-961
Sewage and refuse treatment - 48952Y/28
• BOSC- 16.12.77 BOSCO IND MEC SPA D17 *DT 2852-873
Continuous massecuite screening centrifuge - 47409B/26
• BOZE/ 19.04.77 BOZEC R C03 D13 *FR 2403-748
Industrially drying and sterilising organic waste for fodder - 47547B/26
BRIM 26.12.72 BRISTOL MYERS CO D21 E24 =DS 2364-114
Nitrodiphenylamine dye-based hair colouring prepns - 47158V/26
BRIM 28.02.75 BRISTOL MYERS CO A97 D25 E19 (D22) =CA 1056-251
Soap curd dissolving compsn. - 32590Y/18
BRIM 06.10.77 BRISTOL MYERS CO D21 E14 =J5 4062-335
Oxidn. dye compsn. for hair - 31809B/17
BROV 17.05.66 BBC BROWN BOVERI D15 =NL -160-494
Equipment for deaerating boiler feed water - 54533R/31
BRPE 06.10.77 B P CHEMICALS LTD D16 E17 J01 (E15) =J5 4061-107
Dehydration of aq. alcohol(s) - 33743B/18
BRPE 14.10.77 BRITISH PETROLEUM LTD D16 E17 J01 (E15) =J5 4063-006
High purity anhydrous ethanol prepn. - 33748B/18
BRPE 05.11.77 BRITISH PETROLEUM LTD A88 D15 H01 J04 =BR 7807-261
Determining soluble biological cpds. in water with adsorption filter - 39993B/21
BRPE 05.11.77 BRITISH PETROLEUM LTD A88 D15 H01 J04 =NO 7803-665
Determining soluble biological cpds. in water with adsorption filter - 39993B/21
BRTA 27.10.71 BRIT AMER TOBACCO LTD D18 =NL -160-480
Ventilated filter tip cigarette - 56101U/38
BRUS/ 23.12.75 BRUSSELLE V D12 =OE 7609-065
Meat prods. e.g. hamburgers, prodn. machine - 19984Y/12
• BRUS/ 29.11.76 BRUSILOVSKII M I A97 D18 E32 (A21) *SU -621-725
Tanning hides with zirconium salts - 48576B/26
BUCM 27.07.76 BUCHERGUYER MASCH D15 =OE 7704-889
Aeration of foaming liquors - 10641A/06
• BUCM 15.12.77 BUCHERGUYER MASCH D14 (D16) *DT 2848-446
Fruit juice extraction plant - 47394B/26
BURR- 14.08.70 BURRUS & CIE F J A88 D18 =J7 9014-198
Multi-layer tobacco filter - 12851T/08

• CALG 12.12.77 CALGON CORP D15 E16 M14 (E36) *EP ---2-634
Steam condensate corrosion inhibiting system - 47540B/26
CANA 07.10.77 CANADIAN PAT & DEV LTD D23 =J5 4062-206
De:hulling of rapeseed or mustard seed defatted meals - 32043B/17
• CANC- 16.12.77 FOUND PROM CANCER I B04 D16 *GB 2010-089
Immuno-therapeutic agent for treating cancer - 47584B/26
• CARL/ 31.08.77 CARLBERG G D22 *US 4157-696
Fly ash-based animal litter pellets - 48855B/26
• CHAK/ 10.04.78 CHAKERIAN J P A97 D13 *US 4157-620
Bleached dried fruit prodn. in the field - 48843B/26
• CHEM- 13.02.70 CHEMED CORP D25 E19 *US 4157-977
Detergent-germicide compsns. - 48920B/26
• CHIA/ 24.10.77 CHIAKI K D15 *J5 4061-085
Adsorbent for phosphorus and nitrogen cpds. and heavy metals - 47771B/26
CHIM- 02.08.76 CHIMICASA GMBH B02 D13 E12 =US 4158-006
Sodium saccharin purification - 12548A/07
CHIN 21.03.74 CHINOIN GYOGYSZER C03 D18 F06 (C01) =IT 1030-404
Pest control in raw hides and wool - 65918W/40
• CHOW/ 17.03.78 CHOW B H C04 D15 E17 H09 *US 4157-958
Inverted vessel for converting organic waste to combustible gas - 48908B/26
CIBA 10.11.76 CIBA GEIGY AG A97 D15 E11 M14 (A14 E34) =OE 7707-999
Corrosion and scale inhibition in aq. systems - 35248A/20
CIBA 21.11.77 CIBA GEIGY AG A60 B05 C03 D22 =GB 2010-260
Halogenated 3-hydroxy-di:phenyl ether derivs. - 40883B/22
• CIBA 20.05.79 CIBA GEIGY AG D25 E24 *RD -182-017
Di:potassium salt of 4,4-bis-(4-chloro-3 sulphostyryl) bi:phenyl - 48349B/26
• CIBA 20.05.79 CIBA GEIGY AG D25 E23 F06 *RD -182-041
Aq. bleaching and disinfecting baths for cotton fabrics - 48363B/26
• CLEV- 20.12.77 CLEVEPAK CORP D15 *DT 2756-893
Sewage aeration device - 47376B/26
• CLEV- 20.12.77 CLEVEPAK CORP D15 *DT 2756-894
Sewage aeration device backflushing - 47377B/26
COAF 05.06.75 CREUSOT-LOIRE D15 =DS 2623-210
Purificn. of oil polluted industrial effluent esp. coolants - 94318X/51
COLG 24.11.75 COLGATE PALMOLIVE CO A96 D22 F07 =OE 7608-600
Babys napkin retained with detachable plastic straps - 23613Y/14
• COOR- 22.12.77 COORS FOOD PROD CO D13 (D16) *BE -872-888
Edible yeast product used as cocoa substitute - 47147B/26
COPA- 06.11.70 COPAFI CONSORTIUM D13 E33 =IT 1030-016
Preserved fruit - 65274T/41
CORP 11.01.74 CPC INTERNATIONAL INC A14 D15 (A89 A91 A96 A97) =IT 1030-092
Hydrophilic thermoplastic phase-sepd. graft copolymers - 49700W/30
COUR 13.02.74 COURTAULDS LTD A88 D18 F04 =IT 1030-133
Unsleeved cigarette filter tips - 44443W/27
• COXD/ 04.10.77 COX D S D11 *US 4158-069
High protein efficiency ratio wheat macaroni - 48956B/26

• DAAG 28.04.70 DAINIPPON SEITO KK D17 *J7 9014-171
Prepn. of sugar contg. granular material - 48309B/26
• DAIK 29.10.77 DAIKIN INDUSTRIES KK D25 E19 *J5 4063-108
Cleaning soln. for removing oily abrasive - 48178B/26
• DAIR= 10.12.76 DAIRY IND RES INST D13 *SU -622-461
Additive for dairy products esp. for cream cheese - 48721B/26
DAMB- 07.04.76 DAMBACH-INDUSTRIEAN D15 =DS 2615-033
Biocell reactor for treating sewage sludge - 76056Y/43
DANA 26.09.77 DANFOSS A/S D25 E17 M12 (E14) =FR 2404-044
Fluid for cleaning worked metal articles - 26399B/14
DASU- 21.09.77 DANSKE SUKKERFABRIK A91 D13 (A25 A97) =FR 2404-021
Anion exchanger resins for purificn. of fruit juice - 28122B/15
• DAUB- 16.12.77 DAUB F U SOHNE D11 *DT 2756-143
Revolving baking oven - 47314B/26
DEGS 22.04.74 DEUTSCHE GOLD & SILBER A35 D15 E17 (A21) =IT 1030-361
Detoxifying formaldehyde-contg. waste waters - 74359W/45
DEGS 31.10.77 DEUTSCHE GOLD & SILBER D25 E34 =SW 7811-246
Stabilisation of sodium percarbonate particles against moisture 33354B/18
DEGS 18.11.77 DEUTSCHE GOLD & SILBER D21 M26 =BR 7807-184
Yellow gold alloy - 22149B/12
• DEGS 15.12.77 DEUTSCHE GOLD & SILBER D21 M26 *DT 2755-913
Stable, dental gold alloy - 47295B/26
• DEGS 15.12.77 DEUTSCHE GOLD & SILBER D23 E14 *DT 2755-949
Beta-phenylethyl alcohol prodn. from phenyl-glycol - 47301B/26
• DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 *BE -872-978
Deodorising industrial and urban waste water sludges - 47180B/26
DEJI- 18.09.76 DEJ INT RES CO D13 =US 4158-067
Instant coffee extract prepn. - 23624A/13
• DELA/ 27.09.77 DELALANDE C D15 J01 *FR 2403-818
High surface area filament packing for gas-liq. contact - 47552B/26
• DENY 25.10.77 DENRYOKU CHUO LAB D15 J01 K07 M25 *J5 4061-014
Selectively sepg. caesium from atomic power plant liq. waste 47741B/26
DOWA 30.08.76 DOWA MINING KK D15 #DS 2639-045
Low pH value waste water ferrous ion oxidn. - 06548Y/04
DOWC 18.10.76 DOW CHEMICAL CO C02 D13 #CA 1056-382
(2,3,5,6)-tetra:chloro-pyridine prodn. from penta:chloro-pyridine - 08780A/05
• DOWC 14.12.77 DOW CHEMICAL CO A97 C03 D22 E19 (A25 D15 D25) *DT 2853-119
Stabilised aq. antimicrobial slimicidal compsn. - 47414B/26
• DUKU 21.12.77 DUISBURGER KUPFERHUTTE D15 M25 (M14) *EP ---2-497
Processing used ammoniacal copper etching solns. - 47476B/26
DUNC 18.10.73 DUNCAN FLOCKHART CO B04 D16 =US 4158-054
Vaccines from apyretogenic virus fragments - 29077W/18
DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =SW 7811-369
Immobilising enzymes on amorphous silica carrier - 35242B/19

EAST 18.11.74 EASTMAN KODAK CO D12 E34 (E14) =CA 1056-199
Nitrite substitutes for curing comminuted meats - 57122W/34
ELIL 05.08.77 ELI LILLY & CO A96 D21 G02 (A14 A82) =US 4158-053
Nail varnish based on aq. polymer emulsion - 42204A/24
ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 =EP ---2-589
Antibiotic A-40104 fraction A - 93172A/51
ELMQ/ 27.07.77 ELMQVIST O A88 D15 =J5 4062-974
Heat exchanger elements utilising solar energy - 15959B/08
EMEY 21.09.77 EMERY INDUSTRIES INC A35 D23 E13 (A23) =FR 2404-007
Hetero-macrocyclic perfume ingredients - 08055B/05
ENVI- 26.09.73 ENVIREX INC D15 =IT 1030-060
Turbine for mixing and aerating effluent - 12742W/08
ERIC/ 08.07.69 ERICSON P E C04 D15 =J7 9013-369
Soil composition - 05579S/03
ESCA- 05.12.77 ESCAN METAL CANADA D13 =GB 2010-078
Steam chamber for cooking foodstuffs - 45915B/25
ESPE 15.05.68 ESPE FAB PHARM PRAPARATE A14 D21 E14 =NL -160-578
Prodn of teeth fillings by polymerising a diacrylic - 40807Q/00
ESSO 03.12.75 EXXON RES & ENG CO D15 =CA 1056-519
Purifying waste waters contg. dissociatable cpds., e.g. phenols - 42077Y/24
• ESSO 15.12.77 EXXON RES & ENG CO D15 J01 *DT 2854-249
Regeneration of anion and cation exchanger resins - 47439B/26
ESSO 15.12.77 EXXON RES & ENG CO D15 J01 =GB 2010-117
Regeneration of anion and cation exchanger resins - 47439B/26
EXTE- 27.09.77 EXTERMA-GERM PROD L A94 D22 E14 F06 (D25) =FR 2404-067
Impregnated material esp. with antimicrobial compsn. - 10007B/06

FARB 31.07.76 BAYER AG D15 J02 (D16) =OE 7705-605
Injector nozzles for injecting gases into liqs. - 08349A/05
FARB 15.12.77 BAYER AG B07 C03 D16 E19 =DT 2756-032
Stable microorganism preparations for degradation of organic material - 20031B/11
FARB 15.12.77 BAYER AG B07 C03 D16 E19 =GB 2010-327
Stable microorganism preparations for degradation of organic material - 20031B/11
*FARB 16.12.77 BAYER AG A25 C03 D21 E17 *DT 2756-270
Low mol. wt. poly:ol mixt. prodn. - 47327B/26
FARB 16.12.77 BAYER AG A25 C03 D21 E17 =EP ---2-473
Low mol. wt. poly:ol mixt. prodn. - 47327B/26
*FARB 17.12.77 BAYER AG A97 D15 F09 (A26) *DT 2756-431
Water-soluble amido-poly:amine cpds. used in paper mfr. - 47343B/26
*FARB 17.12.77 BAYER AG A97 D15 F09 (A26) *DT 2756-469
Water-soluble amido-poly:amine cpds. for use in paper mfr. - 47346B/26
FARB 17.12.77 BAYER AG A97 D15 F09 (A26) =EP ---2-474
Water-soluble amido-poly:amine cpds. used in paper mfr. - 47343B/26
FARB 17.12.77 BAYER AG A97 D15 F09 (A26) =EP ---2-475
Water-soluble amido-poly:amine cpds. for use in paper mfr. - 47346B/26
FARH 22.11.73 HOECHST AG A96 D22 (A11) =OE 7409-291
Water-absorbing water-insoluble cellulose ethers - 37847W/23
FARH 11.09.75 HOECHST AG B04 C03 D13 =OE 7606-752
Salinomycin and salts an esters for feed utilisation improvment - 19921Y/12
FARH 24.06.76 HOECHST AG B04 D13 =US 4158-068
Sweetener mixt. contg. aceto-sulpham and a second sweetener - 02377A/02
FARH 04.11.77 HOECHST AG A60 D23 E16 K01 (A14) =GB 2010-088
Surfactant mixt. of per:fluoroalkyl quat. ammonium alkyl sulphate(s) - 35259B/19
FARH 19.12.77 HOECHST AG A97 D25 E11 =DT 2756-516
Washing powder with improved detergent auxiliary - 45714B/25
FARH 19.12.77 HOECHST AG A97 D25 E11 =GB 2010-310
Washing powder with improved detergent auxiliary - 45714B/25
FIND- 29.11.76 PRODS FINDUS SA D14 =US 4157-681
Machine for trimming vegetables etc. partic. cauliflower - 15940A/09
FIRM 07.03.74 FIRMENICH & CI B07 D23 E15 =J7 9013-488
Aroma substance from caryophyllene and/or humulene - 62495W/38
FIRM 17.10.77 FIRMENICH SA B07 D13 E13 (B03) #J5 4061-165
Tetra:methyl-oxa-spiro-deca:diene cpds. - 34615B/18
FIRM 06.12.77 FIRMENICH SA B07 C03 D13 E13 (B03) =GB 2010-263
3-Methyl-1,2,4-trithiane used in aromatising compsns. - 44320B/24
*FJIE 28.10.77 FUJI ELECTRIC MFG KK D15 E36 J01 *J5 4062-188
Appts. for recovering and regenerating magnetic active carbon - 47972B/26
FORT- 16.12.77 VEB KOMB FORTSCHRIT D13 =DT 2852-251
Increasing dry solids content of milk products - 39071B/21
*FRAN- 26.09.77 FRANCHECOMTE UNION D13 *FR 2403-969
Rotating palette for lifting truck - 47557B/26
*FREU 20.12.77 FREUDENBERG, CARL FA C03 D13 (C04 D12 D16) *DT 2756-739
Processing animal carcass, bone and meat waste - 47368B/26
FRIE/ 29.04.74 FRIEDMAN B D13 (D23) =CA 1056-203
Treatment of used cooking oil with acid solns - 28267X/15
FRRR 17.08.76 FERRERO P & CIA SPA D11 =OE 7705-920
Baba type fancy cake - 90091Y/51
FRRR 21.09.77 FERRERO P & CIA SPA D13 =FR 2403-746
Filled floatable spherical food prod. - 08058B/05

*GAMB- 16.12.77 GAMBRO AB B04 D16 J04 *DT 2853-897
Measurement of concn. of cpd. in fluid - 47432B/26
*GASS/ 07.03.77 GASSNER J D11 *OE 7701-514
Dough pieces proving and shaping installation - B/26
GENA 26.05.71 GAF CORP D25 E11 =DS 2225-793
Primary and secondary phosphate esters of organic hydroxy compds - 81621T/52
GENE 03.10.77 GENERAL ELECTRIC CO A91 D15 J01 K06 =J5 4061-076
Regenerating spent anionic and cationic exchange resin mixt. - 28180B/15
*GENE 20.12.77 GENERAL ELECTRIC CO D15 H05 J01 *EP ---2-524
Random fibrous matrix coalescer for sepg. fluids of differing density - 47489B/26
GENE- 08.11.77 GENENTECH INC B04 D16 =BR 7807-290
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NO 7803-722
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NO 7803-723
Recombining plasmid for transformation of bacteria - 35257B/19
GENE- 08.11.77 GENENTECH INC B04 D16 =NO 7803-724
Recombining plasmid for transformation of bacteria - 35257B/19
GENI/ 22.09.77 GENIEYZ F D21 E17 (E15) =FR 2403-800
Compsn. for treating baldness and skin sores - 23952B/13
GENM 27.05.70 GENERAL MILLS INC D13 =IT 1030-014
Meat substitute prodn from orientated protein fibres - 76427S/48
GENO 01.11.77 GENERAL FOODS LTD D13 =SW 7810-872
Free-flowing coffee agglomerate leaving no sediment - 35665B/19
*GERB 21.07.78 GERBER PRODUCTS CO D13 *US 4158-066
Stabilisation of rice polish - 48955B/26
GIVA 23.12.70 GIVAUDAN L & CIE SA D13 E19 =J7 9013-499
Synthetic meat aroma - 43869T/27
*GIVA 12.12.77 GIVAUDAN L & CIE SA D23 E15 *EP ---2-510
1-Methyl-1-acetoxy-cyclohexane derivs. - 47481B/26
*GLAT- 25.10.77 GLATZ J GMBH D18 F09 *J5 4062-400
Mouth-piece paper for cigarette tobacco - B/26
GRAI 06.06.75 GRAIN PROCESSING CORP D16 =GB 1547-832
Light beer of low volatiles content, prepn - 79439X/43
GRAI 09.12.77 GRAIN PROCESSING CORP D16 =NL 7811-993
Prepn. of roasted non-malted barley - 27923B/15
GRUB/ 26.09.77 GRUBELNIK H D11 =FR 2403-745
Dough stretch rolling machine - 27994B/15

*HARA/ 21.10.77 HARA S D21 E14 (E17) *J5 4062-330
Cosmetic compsn. for skin - 48049B/26
HAYB 30.06.67 HAYASHIBARA CO D17 E13 (D16) =DS 1767-912
Prepn of high purity maltose - 32459S/19
HAYB 30.04.68 HAYASHIBARA CO D16 =NL -160-615
Long-and short - chain amylose prodn from starch - 05456R/04
HAYB 03.09.68 HAYASHIBARA CO D17 =NL -160-614
Preparation of high mol wt amylose - 15411R/10
HENK 25.02.74 HENKEL KG AUF AKTIEN D25 =IT 1030-215
Pourable detergents and cleansers - 59162W/36
HENK 21.03.74 HENKEL KG AUF AKTIEN A97 D25 E19 =IT 1030-392
Storage-stable-readily soluble additives for washing compsns - 67498W/41
HENK 10.10.74 HENKEL KG AUF AKTIEN D25 E37 =NL -160-607
Powdery detergent contg. water-insoluble silicate - 30515X/17
HENK 19.06.75 HENKEL KG AUF AKTIEN A97 D25 E37 =OE 7600-172
Stable alumino or boro silicate suspensions contg. dispersants - 31842X/18
HENK 29.04.76 HENKEL KG AUF AKTIEN A97 D25 =DS 2618-977
Liquid scouring type cleaning compsn. - 77549Y/44
HENK 01.09.76 HENKEL KG AUF AKTIEN A96 B05 D21 E19 (A25) =OE 7706-280
Solns. of fat-soluble perfume oils or pharmaceuticals - 18009A/10
HENK 01.12.76 HENKEL KG AUF AKTIEN A97 D25 (A91) =BR 7707-805
Machine washing and cleaning of solid articles - 33405A/19
HENK 02.02.77 HENKEL KG AUF AKTIEN D25 E13 =OE 7700-666
Detergent compsns. esp. for cold-washing textiles - 57076A/32
HENK 07.10.77 HENKEL KG AUF AKTIEN B05 C04 D15 E11 (B03 C01 D13 D21) =J5 4061-125
1-Hydroxy-alkane-1,1-di:phosphonic acid derivs. - 29922B/16
HENK 08.10.77 HENKEL KG AUF AKTIEN A97 D14 =J5 4063-110
Cleaning product for fruit, vegetables and other foods - 27862B/15
HENK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 =NL 7811-789
Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
*HENK 19.12.77 HENKEL KG AUF AKTIEN D25 E19 F06 *DT 2756-583
Bleaching compsn. for textiles - 47356B/26
*HENK 23.12.77 HENKEL KG AUF AKTIEN D23 E17 (D21 D25) *BE -872-943
3,5,5-Tri:methyl hexanoic acid ester(s) used as aromatic materials - 47163B/26
*HESS/ 02.11.77 HESSELGREN S G A96 D22 *SW 7712-360
Wound dressing compsn. including water-soluble alginate and salt - B/26
HOFF 09.12.77 HOFFMANN-LA ROCHE AG D21 E13 =NL 7811-470
Cosmetic prods. contg. pyridine thiol cpds. and acetyl cysteine - 44049B/24
HOKA 07.07.73 HOKKAIDO SUGAR KK D16 (D17) =J7 9013-509
Dried free-flowing alpha-galactosidase mycelium - 84540V/49
*HUAN/ 18.11.77 HUANG J Y C D15 J01 *US 4157-962
Backwashing filter media to form undulating surface - 48910B/26
HUBE 16.05.77 HUBER J M CORP A60 B06 D21 E36 (D25) =US 4157-920
Amorphous pptd silica esp for use in tooth-pastes - 74354X/40
HYCO- 26.09.77 HYCOR CORP D12 =FR 2403-836
Doctor blade cleaning assembly - 29403B/15
*HYDR= 23.09.77 HYDROLYSIS IND A88 C03 D16 (D13) *FR 2404-045
Industrial plant growing microorganisms for food or fodder - 47566B/26

ICIL 03.11.77 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =SW 7811-358
Biocidal polyurethane(s) and polyester(s) - 33362B/18
ICIL 03.11.77 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =SW 7811-359
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18
*ICIL 23.12.77 IMPERIAL CHEM INDS LTD C03 D22 G02 H08 (D15 G03) *BE -872-920
1-Thiocyanato-8-substd. naphthalene biocides - 47159B/26
IDEK 29.06.74 IDEMITSU INDUSTRIES D15 H05 J01 =J7 9013-707
Oil-contg waste water treatment - 04185X/03
*INGR- 19.12.77 INGREDIENT TECHN CO D17 *GB 2010-325
Crystallisation of sugar from supersaturated solns. - 47612B/26
*INPR= 02.02.77 IND PROCESSES AUTOM D23 *SU -621-721
Proportional integral control system for ester oils distiller - 48572B/26

•INTE- 18.11.77 INTEROX A97 D15 E33 *EP ---2-543
Polymer coated calcium peroxide particles - 47500B/26
INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D13 =OE 7605-337
Zearalanol anabolic agent prepn. - 00046Y/01
INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D16 =OE 7605-338
Recovery of zearalenone from fermentation liquors - 00047Y/01
•ISHI- 20.12.77 ISHIGAKI KIKO CO D15 *DT 2850-771
Sewage sludge dewatering filter press - 47396B/26
ISHI- 20.12.77 ISHIGAKI KIKO KK D15 =GB 2010-112
Sewage sludge dewatering filter press - 47396B/26

JODE/ 29.12.73 JODEHL P A D16 H08 =DS 2365-170
Compsn accelerating biological degradation of mineral oil - 47871W/29
•JOHJ 20.12.77 JOHNSON & JOHNSON D22 *BE -872-924
Baby's disposable napkin with elastic edges - 47160B/26
JOHM 14.09.77 JOHNS MANVILLE CORP D13 E33 (D23) =J5 4062-999
Coarse synthetic hydrous calcium silicate - 35797B/19
JONS/ 31.10.77 JONSSON U R S B04 D16 =SW 7712-244
Prodn. of a stable prepn. having immunoglobulin binding properties - 40601B/21

KAFU/ 03.09.74 KAFUKA A B05 C03 D22 =J7 9014-100
Solubilization of antibacterial hinokitiol - 31109X/17
•KANE 27.10.77 KANEBO KK D21 E17 *J5 4062-329
Two/phase aq. alcohol cosmetic compsn. - 48048B/26
•KANE 27.10.77 KANEBO KK A96 D21 *J5 4062-332
Stable creamy or emulsive cosmetic - 48051B/26
KAOS 24.04.74 KAO SOAP KK A97 D25 E17 =J5 0139-105
Cleaning compsn. for diesel engine superchargers - 48297B/26
•KAOS 24.04.74 KAO SOAP KK A97 D25 E17 *J7 9014-125
Cleaning compsn. for diesel engine superchargers - 48297B/26
KAOS 04.09.75 KAO SOAP KK D25 E12 (E16) =J7 9013-444
Detergent compsn.: contg. 3 alkyl ether sulphates - 03971Y/03
KAOS 22.09.75 KAO SOAP KK A97 D25 E19 =J7 9013-445
Liq. detergent compsn. - 31975Y/18
KARL/ 01.11.77 KARLSSON H D23 =SW 7712-347
Heat candle mfr. - 35708B/19
KAYA 11.09.73 KAYAKU ANTIBIOTIC RES B04 D16 =J7 9013-516
Fraction Ma of neocarizinostatine - 09193W/06
KEMP/ 22.03.75 KEMPER K D11 =GB 1547-662
Bread dough prepn machine - 77738X/42
•KIFO= 01.03.77 KIEV FOOD IND TECHN D16 E17 *SU -621-723
Ethyl alcohol prodn. from starch-contg. material - 48574B/26
KIKK 17.10.72 KIKKOMAN SHOYU KK D16 (D13) =J4 9062-675
Yeast extract prepn - 33024V/18
KIKK 17.10.72 KIKKOMAN SHOYU KK D16 (D13) =J7 9013-496
Yeast extract prepn - 33024V/18
KIKK 12.08.74 KIKKOMAN SHOYU KK D13 =CA 1056-196
Soybean extraction in presence of glycosidase inhibitor - 31012X/17
KIKK 06.08.75 KIKKOMAN SHOYU KK B02 D16 =J7 9014-119
Amino-adenosine cyclic phosphates - 24613Y/14
•KIRI 26.10.77 KIRIN BEER KK B04 D16 *J5 4062-386
Alkali protease prodn. - 48057B/26
KITA 05.10.72 KITASATO RES INST B04 C03 D16 =DS 2348-897
Killed mycoplasma vaccine for protection of domestic animals - 11403V/07
KITA 13.03.75 KITASATO RES INST B04 D16 #DS 2510-868
Antibiotic OS-3966-A prepn. - 66305W/40
KOBA- 23.10.73 KOBAYASHI KANKYO KA D16 E36 J01 =J7 9013-507
Industrial waste gas purification - 74839W/45
•KOLB/ 20.12.77 KOLB H D13 (D16) *DT 2757-366
Enzymatic protein hydrolysate prepn. from oil seeds - 47381B/26
KONI/ 23.04.76 KONIG H D11 =DS 2717-410
Dough tipping mechanism - 79794Y/45
•KONI/ 06.05.77 KONIG H D11 *OE 7703-265
Machine for making dough into round shapes - B/26
•KONI/ 16.12.77 KONIG H D11 *DT 2853-270
Dough portioning and grinding machine - 47417B/26
KOTT/ 07.04.75 KOTT R D12 =GB 1547-906
Skinless smoked sausage - 90734X/49
KOYA/ 01.04.74 KOYAMA Y B04 D16 =J7 9014-197
Antibiotic TS-0822 - 78096Y/44
KUBI 27.09.73 KUBOTA KK D15 =J5 0060-051
Activated sludge treatment of night soil polluted water - 48263B/26
•KUBI 27 09.73 KUBOTA KK D15 *J7 9013-706
Activated sludge treatment of night soil polluted water - 48263B/26
•KUMA/ 22.10.77 KUMA K D15 *J5 4060-762
Water improving agent for aeration type purifying vessel outflow - 47720B/26
KURE 22.09.77 KUREHA KAGAKU KOGYO D13 E17 J01 =FR 2403-816
Ethylene adsorbent of active carbon - 29978B/16
•KURO/ 22.12.77 KUROS G R D15 *OE 7709-264
Waste water treatment plant - B/26
•KURS 28.10.77 KURARAY KK A41 B05 D22 E11 (B04) *J5 4063-025
2-Methacryloxy:ethyl phosphoryl choline - 48142B/26
KYOW 31.08.73 KYOWA FERMENTATION KK B05 D13 E19 =J5 0
172
Sweetening compsn. comprising stevioside or glycyrrhizin - 48245B
•KYOW 31.08.73 KYOWA FERMENTATION KK B05 D13 E19 *J7 9013-
Sweetening compsn. comprising stevioside or glycyrrhizin - 48245B
KYOW 15.03.74 KYOWA FERMENTATION KK B03 D16 =J5 4014-19
Triazole ribotide prodn. - 76390Y/43
KYOW 15.03.74 KYOWA FERMENTATION KK B03 D16 =J7 9014-19
Triazole ribotide prodn. - 76390Y/43

•LABO 27.12.77 LABOFINA SA A97 D25 H03 (D15) *BE -872-938
Surfactant compsn. for treating oil slicks and beaches - 47162B/26
LANG- 02.04.70 LANG GEPGYAR D13 =IT 1030-012
Concentrating fruit or vegetable juices - 66647S/42
•LEES- 31.05.71 LEES J.W & CO D16 *IT 1030-015
Gas recovery method - B/26
•LEFO= 06.12.76 LENGD FOOD IND RES D16 (D14) *SU -621-722
Fermenter foam breaker - 48573B/26
LEIF- 07.10.76 LEIFHEIT INT GMBH D14 =OE 7706-723
Domestic mincer with handle axis above mincing rotor axis - 10346A
LIOY 05.11.71 LION FAT & OIL KK D25 E17 =J4 8052-687
Surface active agents - 29126U/21
LIOY 05.11.71 LION FAT & OIL KK D25 E17 =J7 9014-075
Surface active agents - 29126U/21
•LVPO= 28.03.77 LVOV POLY B05 C03 D16 *SU -622-141
Radio-telemetry system for testing mobile agricultural machine
F6748B/26
•LYON 10.04.68 LYONS LTD D13 *IT 1030-007
Citrus fruits drinks or extracts prepn. - B/26

MACH- 08.12.77 MACHINES CHAMBON D17 =NL 7811-974
Infrared preheat of sugar lumps between moulding and dryin
24007B/13
MACH- 12.12.77 MACHINES CHAMBON D17 =NL 7811-973
Drying tunnel esp. for moulded moist sugar lumps - 24008B/13
MAGN- 19.12.77 MAGNUSON ENGINEERS D14 =DT 2851-682
Fruit and vegetables peeling appts. - 05829B/03
•MARZ 24.10.77 MARUKO SEIYAKU KK B04 D16 *J5 4060-997
Reagent for determining N-acetyl-beta-D glucosaminidase in bl
serum - 47737B/26
MATU 16.06.71 MATSUSHITA ELEC IND KK D15 =J4 8008-970
Appts. for producing mineral water - 48242B/26
•MATU 16.06.71 MATSUSHITA ELEC IND KK D15 *J7 9013-493
Appts. for producing mineral water - 48242B/26
MAZN 27.01.72 MARUZEN OIL KK D13 =J4 8080-769
Prepn. of liquorice - 48244B/26
•MAZN 27.01.72 MARUZEN KASEI KK D13 *J7 9013-497
Prepn. of liquorice - 48244B/26
•MCKE- 22.04.75 MCKENZIE & RIDLEY D13 *GB 1547-663
Addition of salt to curd during processing - 47574B/26
MECH- 08.03.76 INST MECH PRECYZYJN D15 M11 (M25) =US 4157-
942
Treatment of concentrated plating solns. and effluents - 67149Y/38
MEIJ 05.07.71 MEIJI KK D16 E13 (D17) =J4 8013-596
Amylase prepn - 31442T/20
MEIJ 05.07.71 MEIJI KK D16 E13 (D17) =J7 9013-511
Amylase prepn - 31442T/20
MEIJ 08.11.77 MEIJI SEIKA KAISHA C03 D16 =BR 7807-305
Herbicidal compsn. contg. antibiotic SF-1293 - 37454B/20
•MEIT 27.10.77 MEITO SANGYO CO KK A96 B04 D16 *J5 4063-012
Antitumour beta-1,3-glucan - 48135B/26
MERI 15.09.77 MERCK & CO INC B02 C02 D22 E13 =J5 4063-097
(N)-Methylene-thienamycin S-oxide and S-di:oxide derivs. - 26432B/14
MERI 12.10.77 MERCK & CO INC B02 C02 D18 E13 (D13 D21) =J5 4063-
098
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s)
37528B/20
•MERI 20.12.77 MERCK & CO INC B04 D16 *EP ---2-645
Antigenic immunogenic complex from Neisseria gonorrhoeae
47545B/26
METB 29.04.76 METAL BOX CO LTD A92 D16 =OE 7703-030
Moulded plastic stopper for wine bottles - 59457Y/34
METZ 09.11.77 METZELER AB A88 D15 J01 #DK 7704-981
Filtration plant for sepg. oil particles from effluents - 35465B/19
MEYN/ 29.07.77 MEYN P D12 #CA 1056-112
Extractor for the cloac(s) of fowl carcasses - 07735A/04
MFEN- 26.09.77 M & F ENG AG D14 =FR 2403-747
Domestic soft ice appliance - 28086B/15
MILE 04.08.75 MILES LABORATORIES INC D13 =J7 9014-172
Bland protein enriched grain gluten prepn. - 11559Y/07
•MILP- 23.08.77 MILPAK INC D22 *US 4157-787
Vaporisable material dispenser - 48864B/26
MINE- 07.12.71 MINES DE POTASSE D D22 E36 (E13) =OE 7210-380
Stabilising bromine in aqs solns - 48358U/34
MINN 26.09.77 MINNESOTA MINING CO D21 M22 =FR 2403-856
Infiltrated, homogeneous metal object - 28158B/15

RO- 03.11.77 MIRODUR ITALIANA SP D14 J02 =GB 2010-108
Machine for simultaneously grinding and mixing several substances - 18081B/10

TD 27.12.75 MITSUI SUGAR KK D16 =J7 9014-188
Fixed glucose isomerase prodn. - 60151Y/34

TK 19.12.77 MITSUI TOATSU CHEM INC B02 C02 D23 E13 #DT 2756-560
Piperonal prepn. - 11545A/06

ITN 26.10.77 MITSUBISHI GAS CHEM IND D15 *J5 4062-655
Dewatering organic sludge - 48067B/26

ITN 27.10.77 MITSUBISHI GAS CHEM IND D16 (D13) *J5 4062-391
Protein prodn. - 48061B/26

ITO 26.10.77 MITSUBISHI HEAVY IND KK D15 *J5 4062-170
Multiple effect evaporator for plain water prodn. - 47961B/26

ITR 21.10.77 MITSUBISHI RAYON KK A81 D15 J01 *J5 4060-760
Treating oil-contg. effluent - 47718B/26

ITU 13.03.74 MITSUBISHI CHEM IND KK C02 D16 =J7 9014-193
High activity fungicidal compsn. - 76388Y/43

ITU 22.10.77 MITSUBISHI CHEM IND KK B04 D16 J04 =J5 4060-996
Fluid glucose content measurement - 33664B/18

OBA- 09.12.77 MOBA HOLDING BARNEV D12 =EP ---2-551
Device for hanging a fowl by the knee joint - 48334B/26

OBA- 09.12.77 MOBA HOLDING BARNEV D12 =EP ---2-552
Device for enclosing and modelling a fowl - 48335B/26

OBA- 09.12.77 MOBA HOLDING BARNEV D12 =EP ---2-553
Device for modelling or packaging objects partic. fowls - 48336B/26

OBA- 09.12.77 MOBA HOLDING BARNEV D12 =EP ---2-554
Device for holding and treating e.g. fowl - 48337B/26

OBA- 09.12.77 MOBA HOLDING BARN D12 *NL 7713-637
Device for hanging a fowl by the knee joint - 48334B/26

OBA- 09.12.77 MOBA HOLDING BARNEV D12 *NL 7713-638
Device for enclosing and modelling a fowl - 48335B/26

OBA- 09.12.77 MOBA HOLDING BARN D12 *NL 7713-639
Device for modelling or packaging objects partic. fowls - 48336B/26

OBA- 09.12.77 MOBA HOLDING BARN D12 *NL 7713-640
Device for holding and treating e.g. fowl - 48337B/26

MOLN 21.12.77 MOLNLYCKE AB D22 *BE -872-890
Intravaginal period sanitary tampon with extraction cord - 47149B/26

MOLS- 16.12.77 MOLSON COS LTD D16 *GB 2010-326
Rapid brewing of malt drinks - 47613B/26

MONH 30.05.68 MONHEIM L D13 =IT 1030-008
Fabrication of liquid centre chocolates - 34831R/20

MONS 27.12.76 MONSANTO CO B03 C02 D21 E13 (D13) =FR 2403-795
Compsn. for inhibiting dental calculus - 48186A/27

MONS 30.11.77 MONSANTO CO A88 D16 J01 (A26) *US 4157-960
Improving selectivity for fluid separation of membranes - 48909B/26

MOOC 08.12.77 MO OCH DOMSJO AB D22 *EP ---2-509
Dressing for high fluid secretion wounds - 47480B/26

MORG 09.12.77 MORINAGA MILK KK B04 D16 #NL 7713-630
Bifidus powder contg. lactulose - 09345A/05

MRSC 10.10.77 MARS LTD D13 (D12) =J5 4062-355
Reducing odour of fish-based food prods. - 27884B/15

MUND/ 18.02.78 MUNDY R E C03 D13 *BE -874-275
Animal feeds contg. cement kiln flue dust - 47225B/26

MUNK/ 20.12.77 MUNK W G D13 *DT 2756-679
Low calorie food prods. - 47363B/26

NAAR 19.01.68 NAARDEN CHEMISCHE FAB D16 =IT 1030-006
Beer brewing raw material concentrate - 12433S/07

NAFO- 02.10.75 NAT FOOD RES INST D17 E13 (D16) =J7 9014-187
Immobilizing glucose isomerase in microbial cells - 05408Y/03

NAMA- 29.08.75 NAT MARINE SERVICE D15 H03 J01 =NO 7901-264
Gravitational separator for immiscible liqs. of different densities - 16779Y/10

NAMA- 29.08.75 NAT MARINE SERVICE D15 H03 J01 =NO 7901-265
Gravitational separator for immiscible liqs. of different densities - 16779Y/10

NATT 15.12.77 NAT STARCH & CHEM CORP A11 D17 =DT 2840-011
Prepn. of highly substd. polysaccharide deriv. - 93173A/51

NATT 15.12.77 NAT STARCH & CHEM CORP A11 D17 =GB 2010-297
Prepn. of highly substd. polysaccharide deriv. - 93173A/51

NATY 04.08.72 NABISCO INC D13 =NL -160-478
Chocolate prodn - 14862V/08

NELH- 02.09.76 NELHAM R & ASSOC D14 #CA 1056-215
Ice cream sandwich formed with wafers - 58477A/32

NEST 14.11.75 SOC PROD NESTLE SA D13 (D12) =J7 9014-173
Vegetable protein food prod. as meat substitute mfr. - 30965Y/18

NEST 12.12.77 SOC PROD NESTLE SA D13 =NL 7714-188
Cheese mfr. - 84045A/46

•NEST 12.01.78 SOC PROD NESTLE SA D13 *BE -872-945
Decaffeinating aq. tea extract - 47165B/26

•NEST 06.02.78 SOC PROD NESTLE SA D13 *BE -873-020
Improving consistency of reconstituted purees esp. of vegetables - 47198B/26

•NIEM- 11.09.73 NIPPON EMULSION KK A25 D25 E16 (E14) *J5 4062-991
Oil soluble surfactant - 48126B/26

•NIIG 28.10.77 NIIGATA ENG KK D15 J01 *J5 4062-980
Ultrafiltration of e.g. bacteria and enzyme - 48116B/26

•NIKN 27.10.77 NIPPON KOKAN KK D15 J01 M25 *J5 4062-654
Treatment of heavy metals-contg. effluent - 48066B/26

•NIOF 25.10.77 NIPPON OILS & FATS KK D13 *J5 4062-339
Improving taste of fatty food - 48053B/26

•NIRA 21.10.77 UNITIKA KK D16 *J5 4062-396
Decolourising 'seishu' produced by rice fermentation - 48064B/26

•NIRA 27.10.77 UNITIKA KK A35 D22 J01 *J5 4062-175
Device for treating gas contg. noxious gases, solvents, etc. - 47963B/26

•NISB 25.10.77 JAPAN TOBACCO & SALT PUB D18 E32 *J5 4062-336
Stable flavouring component for tobacco - 48052B/26

•NISC 31.10.77 NISSAN CHEM IND KK A97 D25 E12 (E34) *J5 4063-109
Creamy cleansing compsn. - 48179B/26

NISW 25.11.76 NISSHIN OIL MILLS KK D23 =J7 9013-442
Fluidity of fats and oils - 52247A/29

NISW 25.11.76 NISSHIN OIL MILLS KK D23 =J7 9013-443
Improving fluidity of fats and oils - 52248A/29

•NITL 26.10.77 NITTO ELECTRIC IND KK A26 B07 C03 D13 (A96 A97 B04) *J5 4062-296
Modified protein resins prod. - 48035B/26

•NITL 28.10.77 NITTO ELECTRIC IND KK A88 D15 J01 *J5 4062-982
Prodn. of complex membrane for reverse osmosis and ultrafiltration - 48118B/26

•NITL 28.10.77 NITTO ELECTRIC IND KK A88 D15 J01 *J5 4062-983
Tubular semipermeable membrane prodn. - 48119B/26

NMHB 31.10.77 NORDISCH MASCH R BAADER D12 #SW 7712-279
Fish fillet skinning machine - 47926A/27

•NMHB 11.10.78 NORDISCH MASCH R BAADER D12 *DS 2844-241
Fish fillet skinning machine - 47258B/26

NORM- 29.09.76 NORM AMC AG C04 D15 =OE 7704-848
Sludge aeration with preliminary heat-generating aeration - 25583A/14

NOVO 19.01.76 NOVO INDUSTRI A/S D13 (D16) =GB 1547-911
Soluble polypeptide aq. compsn. obtd. from soya protein - 50430Y/29

NOVO= 03.11.77 NOVOKUIB GIPROKAUCHUK A60 B07 D13 E14 (B05) #SW 7712-436
Methyl-di:tert.-butyl:phenol purification - 49676A/28

•NTOK 24.10.77 NORITAKE KK D15 E31 J09 M11 *J5 4061-071
Calcining chromium contg. material - 47764B/26

•OLIV/ 21.02.79 OLIVER C D13 *BE -874-320
Machine for filling moulds with chocolate - 47234B/26

OLYU 02.03.77 OLYMPUS OPTICAL KK A88 D16 (A26) =DS 2809-032
Fluid feed device for automatic incubator - 65664A/37

OREA 02.08.67 L'OREAL SA D21 E16 =DS 1792-155
N-methylol cpds used in hair prepns - 04219R/04

OREA 12.08.74 L'OREAL SA A96 D21 E14 (E15) =DT 2560-098
Polyether cosmetic oil binders - 17246X/10

OREA 23.10.75 L'OREAL SA A96 D21 E16 =OE 7607-653
Hydroxy-ethoxy-ethylamide glycidol polycondensates - 29134Y/17

OREA 23.09.77 L'OREAL SA A96 D21 =FR 2403-794
Aminated polymers used in hair and skin care products - 23958B/13

OREA 16.12.77 L'OREAL SA A96 D21 E13 =GB 2010-296
Cosmetic compsn. for reinforcing the nails - 45689B/25

•OREA 19.12.77 L'OREAL SA D21 E17 *DT 2854-556
Compacted nail-polishing compsn. - 47453B/26

OREN/ 20.05.74 ORENSTEN H E D15 =CA 1056-518
Aquarium water filtration system - 81905W/50

PASE 19.03.75 PASSAVANTW MICHELBACHER D15 =CA 1056-521
Slow decarbonating process for water - 59690X/32

•PENN 17.05.74 PENNWALT CORP D11 *CA 1056-200
Multilayer dough improver tablets - 47245B/26

PENN 02.08.74 PENNWALT CORP D22 E12 =CA 1056-252
Aq. antiseptic agents contg. para-chloro-meta-xylenol - 14353X/08

PERS 24.02.75 PERSONAL PRODUCTS CO A96 D22 F07 =CA 1056-228
Catamenial tampons - 68443X/36

PETZ- 26.09.77 MASCH PETZHOLDT J S D13 =FR 2403-751
Continuous cocoa paste roasting process - 08081B/05

PFIZ 15.11.77 PFIZER INC D16 H01 =DK 7803-891
Fermentative prodn. of pyruvate-free xanthan - 37168B/20

PFIZ 16.12.77 PFIZER INC B03 D13 E13 =DT 2854-353
Erythorbic and ascorbic acid 6-fatty acid mon:ester prepn - 45702B/25

PHAR- 17.04.75 PHARMA HAMELN KERST D13 =GB 1547-864
Sonde food for artificial feeding - 83389X/45

•PHYS= 15.07.76 PHYSICAL CHEM INST B04 D16 J04 *SU -621-680
Acid proteinase enzyme immobilisation on silica carrier - 48532B/26

PLEY- 24.06.77 MACHINEFAB PLEYTE D11 =NL -160-476
Positive pressure oven for bread-baking - 05423B/03

•PLTD 27.08.77 PLASTICISERS LTD A88 D18 F02 J01 (A17) *GB 2010-348
Filter material for cigarette filter - 47620B/26

POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 =J7 9013-494
Flavouring method - 65183Z/00

PROC 11.12.67 PROCTER & GAMBLE CO A97 B05 D25 =NL -160-608
Cleaning agents containing antibacterials - 38120F/00

PROC 04.07.68 PROCTER & GAMBLE CO D11 (D13) #DS 1767-943
Chips or crisps from dehydrated potato - 42838R/24

PROC 18.07.77 PROCTER & GAMBLE CO D25 E19 =J5 4060-305
Antistatic, fabric softening detergent additive - 08409B/05

*PROC 13.03.78 PROCTER & GAMBLE CO A26 D25 E11 M14 *US 4157-978
Capped silicate cpds. - 48921B/26

*PURA 04.11.77 PURAC AB D15 *SW 7712-485
Pptn. of dissolved impurities from water - B/26

*QPPP 25.10.77 Q.P. CORP B04 D13 *J5 4061-200
Egg yolk phospholipid prodn. - 47830B/26

QUAK 26.09.77 QUAKER OATS CO C02 D13 E13 (C03) =FR 2403-996
Methyl-pyrid-2-yl-methyl mercaptan derivs. - 14177B/08

RAFT 23.02.68 RAFFINERIE TIRLEMONTOISE D17 J01 =NL -160-493
Counter current extraction appts - 76356R/42

RAFT 08.07.69 RAFFINERIE TIRLEMONTOISE D17 =NL -160-613
Saccharose recovery from sugar refinery - 95748R/51

*RANC= 26.11.76 RANCHING RES INST C03 D13 E34 *SU -622-462
Mineral feed additive for ruminants - 48722B/26

REDK- 25.10.77 REDKEN LAB INC A96 D21 =J5 4062-334
Hair cosmetic compsns. for treating damaged hair - 33589B/18

REGC 23.09.77 UNIV OF CALIFORNIA B04 D16 =FR 2404-013
Purifying nucleotide sequences for insertion into microorganisms - 80247A/45

RENA 27.07.73 RENAULT & PEUGEOT D15 =IT 1030-035
Industrial effluent pretreatment - 13018W/08

*RENA/ 27.09.77 RENARD P D16 *FR 2403-750
Perforated cylinder wine making press - 47548B/26

REXA 03.11.75 DART INDUSTRIES INC D15 =CA 1056-520
Recovering highly conc. municipal waste sludge - 43256Y/24

RHEE 04.11.77 RHEEM MFG CO D12 =SW 7807-042
Stuffing horn assembly with separate horns - 21796B/11

RHON 28.07.69 RHONE-POULENC SA A28 D15 G02 J01 (A18 A97 J04) =NL -160-552
Complex forming polymers having n-contg - 08269S/04

RIES/ 09.12.77 RIESS G A96 D21 =GB 2010-095
Dental surgical implant for securing crowns, bridges etc. - 24021B/13

RIES/ 09.12.77 RIESS G A96 D21 =NL 7811-747
Dental surgical implant for securing crowns, bridges etc. - 24021B/13

RIKA 11.03.77 RIKAGAKU RES LABS K C03 D16 =J7 9013-487
Fungicide contg. Bacileucine-A or -B or its complex - 80900A/45

ROGG 28.08.74 ROGER & GALLET A97 B07 D16 =NL -160-598
Formation of aerosol prods - 85013W/52

ROHM 13.06.75 ROHM & HAAS CO A91 D15 K05 =GB 1547-831
Anion exchange resins with low chlorine content - 01397Y/01

*ROLL- 19.12.77 ROLLWASCH ITALIANA D15 J01 *DT 2854-883
Removal of froth from liq. leaving finishing machine, - 47462B/26

ROLL- 19.12.77 ROLLWASCH ITALIANA D15 J01 =GB 2010-119
Removal of froth from liq. leaving finishing machine, - 47462B/26

ROTO- 31.10.77 ROTOCROP INT LTD D16 =SW 7811-263
Machine to chop vegetable waste for compost - 18082B/10

*SAGA 19.10.77 SAGAMI CHEM RES CENTRE B05 D13 E14 *J5 4061-140
Alpha-aspartyl-phenylalanine alkyl ester sweetening agent prepn. - 47801B/26

*SAGA 26.10.77 SAGAMI CHEM RES CENTRE B04 D16 *J5 4062-389
Peptide prodn. - 48059B/26

*SAGA 28.10.77 SAGAMI CHEM RES CENTRE D23 E15 *J5 4063-061
2-Hydroxy-7-alkyl-bi:cyclo(2.2.1)heptane(s) prodn. - 48156B/26

*SAGA 28.10.77 SAGAMI CHEM RES CENTRE D23 E15 *J5 4063-062
2-Hydroxy-7-alkylidene:bi:cyclo(2,2,1)heptane prodn. - 48157B/26

*SAGA 28.10.77 SAGAMI CHEM RES CENTRE D23 E15 *J5 4063-063
Carbonyl or hydroxyl subsid. alkyl-norbornene derivs. - 48158B/26

*SANE 27.10.77 SAN EI CHEM IND KK D15 E31 L02 *J5 4062-168
Toxic chromic waste treatment - 47959B/26

*SANS- 30.04.68 SANSUTA HAMIGAKI KK D22 E13 (D21) *J7 9014-074
Protecting surfactant from bacterial degradation - 48291B/26

SANY 14.04.71 SANKYO KK D11 =J4 7035-163
High sugar content bread prodn - 62933V/35

SANY 14.04.71 SANKYO KK D11 =J7 9013-491
High sugar content bread prodn - 62933V/35

SANY 18.06.71 SANKYO KK D12 =J4 8008-961
Minced fish flesh prepn. - 48310B/26

*SANY 18.06.71 SANKYO KK D12 *J7 9014-174
Minced fish flesh prepn. - 48310B/26

SAOK 08.10.75 SANYO KOKUSAKU PULP B03 D13 E13 =J5 2047-960
Synthetic sweetener compsn. - 48312B/26

SAOK 08.10.75 SANYO KOKUSAKU PULP B03 D13 E13 =J7 9014-177
Enhancing taste of sugary sweeteners - 37364Y/21

*SAOK 08.10.75 SANYO KOKUSAKU PULP B03 D13 E13 *J7 9014-17
Synthetic sweetener compsn. - 48312B/26

*SAOK 20.10.77 SANYO KOKUSAKU PULP D25 E17 F09 (E34) *J5 4
304
Safe, non-polluting, non-foaming detergent - 47638B/26

*SAPB 08.05.74 SAPPORO BREWERIES D16 *J7 9014-176
Beer yeast extract prepn. - 48311B/26

*SCHD 19.12.77 SCHERING AG B01 D16 *DT 2757-156
21-Hydroxy-20-methyl-pregnane derivs. prodn. - 47378B/26

SCHD 19.12.77 SCHERING AG B01 D16 =EP ---2-535
21-Hydroxy-20-methyl-pregnane derivs. prodn. - 47378B/26

SCHD 19.12.77 SCHERING AG B01 D16 =GB 2010-276
21-Hydroxy-20-methyl-pregnane derivs. prodn. - 47378B/26

*SCHE/ 16.12.77 SCHEICHER H B05 D21 (D22) *DT 2756-256
Compsn. for treating bone defects - 47324B/26

*SCHR/ 23.12.77 SCHREIBER A D15 *BE -872-996
Compact plant for activated sludge treatment of waste water - 4718

SDEN- 13.03.74 SAINT DENIS SOFACO D22 F04 =IT 1030-322
Continuous mfr. of absorbent bandages compresses - 47749W/29

SEEW- 17.08.74 SEEWER MASCHIN AG D11 =NL -160-477
Machine for folding dough strips - 18217X/10

SEFC- 08.02.74 SEFCAL SARL D16 =IT 1030-102
Solvent extn process for distillery marcs - 79178W/48

*SEGK 21.10.77 SEIKAGAKU KK A91 B04 D16 *J5 4062-385
Neuraminidase purification - 48056B/26

*SEKI- 20.10.77 SEKIGUCAI KK D25 E17 F09 (E34) *J5 4060-304
Safe, non-polluting, non-foaming detergent - 47638B/26

*SEKI/ 20.09.68 SEKINE K D16 *J7 9014-189
Photoreducible or nutrient Chlorella or Cenedesmus cultivati
48313B/26

SHEL 03.10.77 SHELL INT RES MIJ BV D25 E17 =J5 4063-009
Acid catalysed alkylene glycol alkylation with olefin - 15880B/08

*SHIE 31.10.77 SHINETSU CHEM IND KK A14 D21 E21 (A97) *J5 40
148
PVA compsn. for use as base material for deodorant gels - 48195B/2

SHIE 12.12.77 SHINETSU CHEM IND KK C02 D13 E13 =NL 7810-596
Tetra:hydro-pyranone derivs. - 44451B/24

*SHIN/ 28.11.77 LEE JUH SHING J D16 *BR 7707-924
Installation for chlorella cultivation - B/26

*SHIN/ 28.11.77 LEE JUH SHING J D16 *BR 7707-925
Installation for chlorella cultivation - B/26

*SHIN/ 28.11.77 LEE JUH SHING J D16 *BR 7707-926
Chlorella cultivation - B/26

*SHIS 31.10.77 SHISEIDO KK D21 E23 (E24) *J5 4063-132
Red pigment complex for use in cosmetic compsns. - 48186B/26

*SHIV 26.10.77 NEW JAPAN CHEM D25 E17 (D21) *J5 4063-021
Purifying sulphuric ester salts of higher alcohol(s) - 48139B/26

*SIAG= 29.03.77 SIBE AGRIC ACAD D15 *SU -622-431
Livestock manure disinfection system - 48716B/26

SICE- 16.09.66 SICER SOC IND COMM ETUD D17 =IT 1030-003
Sugar crystallisation by evaporating - 58202R/33

SKRY= 21.09.77 SKRYABIN HELMINTHOL B04 C03 D16 #FR 2404-221
Isolation of Trichinella larvae - 72389A/40

SNAM 28.04.71 SNAMPROGETTI SPA A96 B02 D16 (A18 A23) =
7039-694
Hydrolysis or synthesis of antibiotics - 72301T/45

SNAM 28.04.71 SNAMPROGETTI SPA A96 B02 D16 (A18 A23) =
9013-514
Hydrolysis or synthesis of antibiotics - 72301T/45

SNAM 21.06.72 SNAMPROGETTI SPA D25 E12 =J7 9014-093
Alkali metal alkyl-sulphonate prepn. - 80866U/52

SNAM 13.10.77 SNAMPROGETTI SPA D16 J04 =J5 4062-387
Radial flow catalytic enzyme reactor for isomerisation of fructos
29762B/16

SNAM 20.10.77 SNAMPROGETTI SPA B07 D13 E13 (B03) =J5 4063-06
2,5-Di:alkyl-4-hydroxy-di:hydro:furanone prodn. - 31582B/17

SODR- 09.12.77 SODRA SKOGSAGARNA A D22 F09 =NL 7812-046
Feed arrangement of continuous sheets of pulp to dry-laying machi
44035B/24

*SOLB 23.12.77 SOLCO BASEL AG B04 D16 *BE -872-884
Hetero-vaccine for treatment of trichomonas syndrome - 47144B/26

SONC/ 31.10.75 SONCINI A D12 #IT 1030-451
Pneumatic power machine to extract ham bones - 21961Y/13

*SOYU= 31.12.75 SOYUZVODOKANALPROEK D15 *SU -621-645
Two/stage biochemical purificn. of aq. effluent - 48498B/26

SPAA- 14.12.77 SPAAS COTTON NV D23 F07 =DT 2809-870
Wick for candles, etc. of woven bleached cotton - 44036A/25

SPER 22.11.66 SPERRY RAND CORP D22 =NL -160-597
Cleaning electric razors - 68751R/38

STAM 18.10.77 STAMICARBON BV D13 E14 (D23) =J5 4063-036
Pure benzaldehyde prodn. - 34621B/18

STAU 15.12.77 STAUFFER CHEMICAL CO D13 =DT 2853-556
Substitutes for egg albumin and skimmed milk solids in food prod
45698B/25

STAU 15.12.77 STAUFFER CHEMICAL CO D13 =GB 2010-066
Substitutes for egg albumin and skimmed milk solids in food prod
45698B/25

*STAU/ 17.12.77 STAUSBERG W D15 *DT 2756-315
Water disinfection by UV irradiation - 47329B/26

R 23.12.77 STERLING DRUG INC D22 L02 *BE -872-887
3eta whitlockite prepn. in solid or porous form - 47146B/26

R= 03.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05) #SW
2-436
Methyl-di:tert.-butyl:phenol purification - 49676A/28

)N/ 14.10.77 STONE I D22 #DK 7705-026
Sterilisation of biological materials - 84482Y/47

CR- 16.05.75 SUCREST CORP B07 D13 =NL -160-484
Direct tabletting carrier mass - 85254X/46

CR- 02.06.75 SUCREST CORP A97 D17 =CA 1056-375
Carbohydrate removal esp. from molasses on ion exclusion resin -
94687X/51

GI- 16.12.77 SUGIYO CO LTD D12 *US 4158-065
Crab meat substitute prepd. from fish - 48954B/26

lLZ 05.09.73 SULZER BROS LTD D15 K07 =NL -160-669
Irradiation plant for fluid matl partic sewage sludge - 12845W/08

JMI- 28.10.77 SUMITOMO DUREZ KK D15 E14 *J5 4062-659
Treating phenol-contg. waste liquor - 48068B/26

JMO 08.04.71 SUMITOMO CHEMICAL KK D15 E32 M25 =J7 9014-077
Cadmium recovery - 02481V/02

JMO 12.08.75 SUMITOMO CHEMICAL KK A88 D15 J01 (A89 J04) =GB
47-613
Metal ion absorption using filter paper contg. ion exchange gps. -
14969Y/09

JMO 26.10.77 SUMITOMO CHEMICAL KK D15 E36 J04 *J5 4061-985
Determn. of total nitrogen present in water - 47925B/26

VIF 10.06.74 SWIFT & CO D13 =CA 1056-197
Shelf-stable, low-fat, cultured dairy prod - 57800X/30

AHU/ 24.10.77 TAHUSHI I A97 D15 E14 J04 (A11 A13 E15) *J5 4060-761
Removing water-soluble organic material from aq. soln. - 47719B/26

AIT 29.10.75 TAITO KK A97 D16 E24 =J7 9013-451
Polymeric pigment prepd. from iridoide glycoside contg. substance -
40945Y/23

AIY 28.10.77 TAIYO YUSHI KK D23 *J5 4062-207
Improvement of flavour of palm oil - 47980B/26

AKE 21.11.70 TAKEDA CHEMICAL IND KK D13 =IT 1030-018
Edible jelly like prods - 39576T/25

AKE 15.12.71 TAKEDA CHEMICAL IND KK D13 =J4 8067-470
Granular seasoned food - 48243B/26

AKE 15.12.71 TAKEDA CHEMICAL IND KK D13 *J7 9013-495
Granular seasoned food - 48243B/26

AKE 24.10.77 TAKEDA CHEMICAL IND KK B04 C03 D16 *J5 4061-101
antibiotic C-8030 B,C,D, and E - 47782B/26

AKE 24.10.77 TAKEDA CHEMICAL IND KK D12 *J5 4062-357
Agent for maintaining colour of fish eggs - 48054B/26

AKE 24.10.77 TAKEDA CHEMICAL IND KK B02 D16 *J5 4062-390
Prepn. of physostigmine, used as pharmaceutical - 48060B/26

AKE- 26.10.77 TAKENAKA DOBO KU B05 D15 L02 (D23) *J5 4062-169
Solidification of toxic waste - 47960B/26

AKS 02.03.73 TAKASAGO PERFUMERY KK D13 =J4 9110-870
Meat-flavoured food prepn. - 48246B/26

AKS 02.03.73 TAKASAGO PERFUMERY KK D13 *J7 9013-500
Meat-flavoured food prepn. - 48246B/26

AKS 24.10.77 TAKASAGO PERFUMERY KK D23 E17 *J5 4061-115
Citronellic acid prodn. - 47788B/26

ANA 19.12.73 TANABE PHARMACEUTICAL KK D16 E13 =J7 9014-195
Urocanic acid prodn - 82375W/50

EHO- 14.12.77 TECH HOCH KARL-MARX D22 E36 =DT 2838-759
Permanent implant - 26056B/14

EHO- 14.12.77 TECHN HOCHSC K MARX D22 E36 =GB 2010-122
Permanent implant - 26056B/14

EKH/ 01.03.77 TEKHRYBPROM EXP PRD D12 *SU -621-609
Filling jars with fish fillets - 48494B/26

ENG- 03.12.76 TENGAM CO LTD D15 #US 4157-963
Magnetic device for treating calcareous liq. - 12872Y/08

EXC 29.05.68 DEUTSCHE TEXACO AG A96 D21 =NL -160-580
Dialkylhydantoin-formaldehyde film forming resins as - 42021Q/00

EXC 26.12.73 TEXACO INC A25 B05 D25 E16 =DS 2461-072
Primary sec. alkylamines prepn. from N-paraffins - 46057W/28

EXC 31.10.77 TEXACO DEV CORP D15 =SW 7810-758
Treating waste water contg. cyanide and formate(s) - 33367B/18

EXC 29.12.77 TEXACO INC D15 J01 *US 4157-969
Settling tank for oil-sepn. - 48914B/26

EXG 18.01.78 TEXASGULF INC D25 E34 *US 4158-043
Soda ash prodn. from ore - 48948B/26

THAL 24.02.78 VEB SCHWERMASCH THALMANN D23 (D14) *BE -874-363
Industrial plant to dry and cool processed sunflower seeds, etc. -
47241B/26

THAM- 12.12.77 THAMES WATER AUTHOR D15 E35 *EP ---2-597
Ammonia removal from sludge liquor - 47524B/26

THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =NO 7803-699
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19

THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =SW 7811-418
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19

*TKEN 26.10.77 TAKENAKA KOMUTEN KK B05 D15 L02 (D23) *J5 4062-169
Solidification of toxic waste - 47960B/26

TOCH/ 09.03.71 TOCHIKURA T B02 D16 E11 (B03 D13) =J7 9013-515
Organophosphorus cpd with physiological activity - 75453T/47

TOPP 26.10.77 TOPPAN PRINTING KK D13 E37 =J5 4062-340
Foodstuff freshness keeping agent - 02461B/02

*TORA 28.12.70 TORAY INDS INC D15 J01 *J7 9014-071
Osmotic filtration appts. - 48289B/26

TORA 30.04.74 TORAY INDS INC D13 E17 (D16) =J7 9014-191
D-tartaric acid prodn - 76773W/46

TORA 30.04.74 TORAY INDS INC D16 E17 =J7 9014-192
Enzymatic prodn. of d-tartaric acid - 12894A/07

*TORI 27.10.77 TORII YAKUHIN KK B05 D16 *J5 4063-043
Phenyl or naphthyl-acetyl-tyrosine derivs. - 48148B/26

*TORO- 27.10.77 TOYO ROSHI KK D13 E36 J04 *J5 4061-986
Compsn. for detection of chlorine in milk - 47926B/26

*TOXN 12.09.72 TOYO BREWING KK A11 B04 D16 (A97) *J5 4060-384
Higher fatty acid ester(s) of cellulosic fibrous derivs. - 47684B/26

*TOXN 25.10.77 TOYO BREWING KK B04 D16 *J5 4062-392
Sisomycin antibiotics prepn. - 48062B/26

*TOXN 25.10.77 TOYO BREWING KK B04 D16 *J5 4062-393
Antibiotic verdamycin prodn. - 48063B/26

*TOYJ 19.10.77 TOYO SODA KK B05 D13 E14 *J5 4061-140
Alpha-aspartyl-phenylalanine alkyl ester sweetening agent prepn. -
47801B/26

*TSUR 27.10.77 TSUMURA JUNTENDO KK A96 D21 E17 *J5 4062-331
Gelled hand cleaning compsn. - 48050B/26

*TSUR 29.10.77 TSUMURA JUNTENDO KK A97 D25 E17 *J5 4063-106
Non-toxic, gelatinous hand cleanser prepn. - 48176B/26

*TVTI- 12.01.78 TV TIME INC D13 *US 4158-064
Meltable hard candy article - 48953B/26

*UENO 08.03.78 UENO SEIYAKU OYO D12 *BE -874-362
Preparing ground frozen fish used for fish pastes - 47240B/26

UGIN 22.01.74 UGINE KUHLMANN A60 D18 E21 F06 =IT 1030-098
Sol. trisazo dyes from 4,4'-diamino benzene sulphanilide - 51199W/31

*UGIN 14.12.77 PROD CHIM UGIN KUHL A91 D15 E36 J01 *EP ---2-636
Iodine removal from gaseous mixts. or aq. solns. - 47541B/26

UNIC 30.03.73 UNION CARBIDE CORP D21 =IT 1030-029
Hair-care compsn. used as aerosol spray - 74630V/43

UNIC 17.12.75 UNION CARBIDE CORP A97 D12 #CA 1056-198
Plastic envelope for sausages etc - 42332X/23

UNIC 15.12.77 UNION CARBIDE CORP A97 D12 =DT 2853-674
Tubular cellulosic wrapping, esp. for sausages - 45696B/25

UNIC 15.12.77 UNION CARBIDE CORP A97 D12 =GB 2010-124
Tubular cellulosic wrapping, esp. for sausages - 45696B/25

*UNIC 23.12.77 UNION CARBIDE CORP C04 D15 M28 *BE -873-048
Removing heavy metals from waste activated sludge - 47205B/26

UNIL 09.08.67 UNILEVER NV D13 (D23) =NL -160-606
Edible fat prodn. - 62554Z/00

UNIL 01.12.67 UNILEVER NV D23 E11 (D13) =DS 1812-204
Phosphatide separation process - 64805R/36

UNIL 18.06.68 UNILEVER NV A97 D12 =IT 1030-009
Collagen-encased sausage - 43635Q/00

UNIL 31.01.69 UNILEVER NV A18 D21 (A97) =IT 1030-010
Hair dressing containing water soluble poly - 58129R/33

UNIL 20.02.69 UNILEVER NV D24 E17 (D25) =DS 2007-557
Superfatted toilet soap comprising a soap and - 61193R/34

UNIL 20.02.69 UNILEVER NV D24 E17 (D25) =NL -160-610
Superfatted toilet soap comprising a soap and - 61193R/34

UNIL 21.02.69 UNILEVER NV D24 E17 =NL -160-611
Toilet soap (opt super fatted) comprising - 61194R/34

UNIL 17.09.69 UNILEVER NV D12 =NL -160-479
Dehydrated meat-based food product - 21835S/12

UNIL 26.03.70 UNILEVER NV D13 =IT 1030-011
Encapsulated edible products - 63120S/39

UNIL 25.07.70 UNILEVER NV D13 (D23) =IT 1030-017
Margarine fat-contg at least three per cent trans acid - 09390T/06

UNIL 04.12.70 UNILEVER NV D23 E17 =DS 2159-614
Transesterification of triglycerides - 39003T/24

UNIL 30.03.73 UNILEVER NV D21 =IT 1030-030
Hair-fixative compsn. used as aerosol spray - 74631V/43

UNIL 11.04.73 UNILEVER NV D13 =IT 1030-031
Pasteurised, packaged instant cake dough - 74313V/43

UNIL 30.08.73 UNILEVER NV D13 =IT 1030-050
Margarine having increased hardness at 5-25 deg. C - 17975W/11

UNIL 26.02.74 UNILEVER NV D13 =IT 1030-223
Low fat water-in-oil spread - 60777W/37

UNIL 01.03.74 UNILEVER NV D13 =IT 1030-252
Ice cream extrusion - 60799W/37

UNIL 01.03.74 UNILEVER NV D13 =IT 1030-253
Ice cream block - 60797W/37

UNIL 22.03.74 UNILEVER NV D23 (D13) =IT 1030-399
Purificn of crude phosphatides - 67306W/41

UNIL 28.03.74 UNILEVER NV D13 =IT 1030-465
Industrial mfr of iced lollies on sticks - 67307W/41
UNIL 01.05.74 UNILEVER LTD D13 E17 (E12) =CA 1056-202
Emulsifying mixt. for foodstuffs - 75729W/46
UNIL 23.08.74 UNILEVER NV D21 =IT 1030-289
Skin-cleansing material produced in pieces - 62576W/38
UNIL 25.11.74 UNILEVER LTD D13 (D21) =CA 1056-201
Stabilised oil-water emulsions - 44029X/24
UNIL 14.04.75 UNILEVER NV A92 D13 =OE 7602-692
Vented packs for aseptic pasteurised food - 79419X/43
UNIL 17.10.75 UNILEVER NV A97 D25 =OE 7607-662
Washing powders contg. nonionic surfactant and water-soluble soap - 27114Y/16
UNIL 16.01.76 UNILEVER NV A97 D25 E19 =OE 7700-239
Single phase aq. detergent compsn. contg. monoglyceride - 50384Y/29
UNIL 19.05.76 UNILEVER NV B05 D21 =GB 1547-874
Dentifrices with anti-caries activity - 88501Y/50
UNIL 31.10.77 UNILEVER NV D25 E19 =SW 7811-250
Fabric softener compsn. - 33373B/18
UNIL 10.11.77 UNILEVER NV A97 D25 =NO 7803-768
Alkaline particulate detergent compsns. for washing clothes etc. - 37143B/20
UNIL 07.12.77 UNILEVER NV B06 D21 E34 (E33) =NL 7811-898
Anticaries tooth-paste contg. sodium mono:fluorophosphate - 44416B/24
UNIL 12.12.77 UNILEVER LTD A96 D21 =EP ---2-594
Germicide free antibacterial mouth-wash - 35177B/18
UNIL 19.12.77 UNILEVER NV D23 E17 =DT 2854-814
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
*UNIL 22.12.77 UNILEVER NV A97 D25 E19 (A25) *BE -873-051
Aq. detergent compsn. esp. for dish washing - 47208B/26
UNIL 19.12.78 UNILEVER NV D23 E17 =GB 2010-309
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =SW 7803-800
Lubricating binder for animal feeds - 65374A/37
UNIV 15.08.77 KANSAS STATE UNIV D15 J01 =US 4157-959
Granular bed fluid filter - 14575B/08
UNIX 10.10.77 UNISEARCH LTD B01 D23 =J5 4062-172
Wool wax lanolin prepn. from wool degreasing extract - 14214B/08
UNTC 20.04.70 ECODYNE CORP D15 J01 =DS 2118-557
Separating and isolating ion exchange - 39765S/23
USAT 27.09.77 US ENERGY R & D ADMIN D15 K07 =FR 2403-978
Removing plutonium from aq. soln. - 78241A/43
*UWAT= 09.03.77 UKR WATER ENGGS INS D15 J01 *SU -622-501
Flotation separator for effluent purification - 48739B/26

VCAP- 08.03.77 GEB VAN CAPELLEVEEN D11 =NL 7800-640
Conveyor for baking forms during rising process - 65290A/37
VEOS 16.02.76 VER OSTERR EISEN & STAHL D15 M27 =OE 7601-061
Corrosion resistant low alloy steel - 92506X/50
*VEOS 20.12.77 VER OSTERR EISEN & STAHL D15 *DT 2855-160
Pressurised screen belt - 47467B/26
VROL 17.05.76 VON ROLL AG C03 D15 =OE 7702-736
Disposal of industrial effluent contg. salts and organic matter - 66940Y/38

WARN 24.06.69 WARNER LAMBERT PHAR B04 D16 J04 =J7 9013-508
Composite indicator paper for detection of - 02291S/02
WARN 21.09.77 WARNER-LAMBERT CO A96 D21 =FR 2403-783
Prosthetic denture - 26559B/14
WELA 09.12.77 WELLA AG A96 D21 (A11) =EP ---2-506
Aq. hair conditioner and shampoo compsns. - 45814B/25
WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 =DT 2851-928
In vitro propagation of rota-viruses - 42416B/23
*WIEB- 16.05.78 WIENER BRUCKENBAU D16 *OE 7803-521
Waste composting installation - B/26
WIEB/ 03.04.74 WIEBER N O A11 C03 D22 =J7 9014-157
Insoluble absorption material for aq. (organic) media - 85596W/52
WILL/ 30.07.76 WILLISCH H C04 D16 (D15) =OE 7705-177
Composting comminuted refuse opt. mixed with sludge - 10574A/06
WINC- 04.04.75 WINCANTON ENGG LTD D13 =US 4157-680
Drainage plates for cheese moulds - 63491X/34
WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =DK 7804-785
Wood protection against moisture-induced decay - 18077B/10
WORL- 29.08.77 WORLD DEV LAB D15 J01 =FR 2403-810
Reducing impurity concn. of solution by reverse osmosis - 18520B/10
*WURT- 17.12.77 WURTT PELZMASCH POH D18 *DT 2756-425
Leather brushing machine - 47342B/26

*YAMA 24.10.77 YAMANOUCHI PHARM KK D13 E13 *J5 4062-364
Drink for preventing dental plaque formation - 48055B/26

ZAID 26.03.71 ZAIDAN HOJIN BISEIB B04 D16 =J7 9013-512
Hypotensive agent dopastin prepn - 68370T/43

*ZLLT- 08.06.77 Z-L LTD B01 D13 E13 (D16 D21 D23 E15) *US 4157-984
Antioxidant compsns. useful as stabilisers for foods and cosme
48926B/26

F ABD
17-719 Q00
89-686 R02
49-472 R34
13-660 R40
28-060 S14
96-567 V06
022-044 W34
725-146 Q01
725-146 Q01
313-660 A19
160-608 B26

-H CDEF
727-828 Q00
865-072 Q01
639-630 Q01
043-119 Q01
245-694 Q01
508-465 Q01
717-103 B26

-Q ADE
907-472 Q00
2008-541 R14
--73-374 R26
1921-869 S31
1263-541 T06
1267-564 T12
3011-156 U15
3810-938 V21
-957-100 V46
-557-674 W09
-966-500 W19
3923-740 W51
1921-871 Q01
4067-853 A04+
-160-578 B26

21-Q AD
6908-028 Q00
2016-100 S32
-899-544 T20
1278-327 T25
2039-955 T41
-546-803 V17
-546-802 V17
1770-518 V41
3927-198 W52
3987-010 X44
4035-358 Y29
4035-432 Y29
4035-339 Y29
4035-327 Y29
4035-326 Y29
4070-317 A06
4070-320 A06
-160-580 B26

35-Q AD
6909-339 Q00
1930-887 R02
-888-120 S51
3010-545 U14
-734-585 Q01
1030-009 B26

219-R DE
1578-302 R04
B 1234-408 S21
B 1234-409 S21
S 1792-155 B26

56-R D
T 1922-295 R04
2007-277 R12
S 3632-475 T06
B 1273-027 T18
H -518-369 T20
A -921-855 U11
S 1922-295 A02
L -160-615 B26

411-R D
L 6913-297 R10
E -738-317 R10
T 1944-680 R36
R 2017-267 R38
H -518-370 T20
B 1286-308 T34
A -945-492 V17
S 3830-697 V35
S 1944-680 B05
L -160-614 B26

831-R D
R 2011-004 R20
T 1030-008 B26

42838-R D
GB 1195-138 R24
FR 1603-717 S35
CH -512-888 S51
DS 1767-943 B26+

48231-R DE
GB 1197-579 R27
FR 1590-307 R34
J7 2020-639 T24
CA -907-525 T35
CH -534-203 U22
DS 1804-711 A06
NL -160-483 B26

54533-R D
DT 1526-943 R31
NL -160-494 B26+

58129-R AD
DT 2003-487 R33
FR 2029-813 S03
GB 1243-470 S32
ZA 7000-602 S40
CA -910-195 T40
DS 2003-487 V31
US 4001-392 Y03
IT 1030-010 B26

58202-R D
GB 1202-707 R33
US 3533-838 R40
IT 1030-003 B26

61193-R DE
BE -746-329 R34
NL 7002-120 R35
DT 2007-557 R37
FR 2035-612 S08
ZA 7001-086 S40
GB 1257-679 S50
CA -914-031 T47
CH -527-267 T47
J7 5007-607 W17
IT 1020-507 A15
NL -160-610 B26
DS 2007-557 B26

61194-R DE
BE -746-330 R34
NL 7002-392 R35
DT 2007-883 R36
FR 2032-934 S05
ZA 7001-104 S44
GB 1281-895 T29
CA -907-455 T35
CH -527-900 T47
J7 5020-083 W32
NL -160-611 B26

64805-R DE
ZA 6807-765 R36
FR 1593-864 R40
GB 1217-846 R51
J7 1008-702 S10
NL -155-715 A11
DS 1812-204 B26

68751-R D
GB 1206-791 R38
NL -160-597 B26

76356-R DJ
DL --75-065 R42+
SU -463-251 X03+
GB 1265-561 T09
US 3660-042 T21
CA -907-828 T36
DS 1908-148 X51
NL -160-493 B26

82763-R BCD
BE -750-096 R44+
NL 7006-698 R45
ZA 7002-933 S09
J7 1028-835 S33
DT 2022-311 S45
FR 2070-068 S49
US 3679-742 T32
CA -926-329 U22
US 3743-580 U29
CH -544-808 V07+
DS 2022-311 W27+
CS 7003-212 Y10+
GB 1315-551 U18
NL -156-751 A22+
SU -622-414 B26

95748-R D
BE -752-442 R51
NL 7009-938 S03+
DT 2032-744 S08
FR 2054-307 S32
DL --82-679 S36
US 3687-727 T37
GB 1310-255 U11
CA -924-714 U18
SU -479-301 X23
DS 2032-744 X52+
J7 9006-616 B17+
NL -160-613 B26+

02291-S BDJ
DT 2030-720 S02
FR 2051-227 S27
GB 1246-080 S36
US 3645-853 T13
CA -909-119 T38
CH -541-626 U47
DS 2030-720 A05
J7 9013-508 B26

05579-S CD
NL 7010-080 S03+
BE -753-166 S03
DT 2033-508 S04
FR 2054-281 S32
CA -902-944 T27
GB 1284-155 T31
CH -550-749 V30+
US 3824-092 V30+
DS 2033-508 V35+
J7 9013-369 B26+

08269-S ADGJ
BE -754-011 S04+
NL 7010-725 S06
DT 2037-412 S13
DT 2049-057 S14
FR 2052-200 S29
FR 2055-812 S32
GB 1284-252 T31
GB 1284-253 T31
J7 2036-875 T38
CH -527-192 T47
CH -530-427 U04
US 3810-872 V21+
US 3810-848 V21+
US 3810-873 V21+
NL -160-552 B26+

12433-S D
FR 1602-492 S07
GB 1248-505 S39
J7 2024-157 T27
NL -136-737 T47
CA -931-090 U33
IT 1030-006 B26

21835-S D
BE -756-301 S12
NL 7013-800 S13
DT 2045-988 S16
FR 2061-471 S38
ZA 7006-313 T32
CA -909-068 T38
GB 1310-348 U12
NL -160-479 B26

32459-S DE
GB 1232-645 S19
J7 2013-089 T17
CH -529-837 U04
US 3795-584 V11
CA -965-362 W16
NL -158-548 A48
DS 1767-912 B26

39765-S DJ
US 3582-504 S23
DT 2118-557 S46
J4 6005-212 S50
FR 2089-886 T13
GB 1310-067 U11
CA -930-878 U32
CH -566-168 W43
J7 8041-110 A47
DS 2118-557 B26

63120-S D
BE -764-929 S39
NL 7103-849 S41
DT 2114-327 S42
ZA 7103-812 T06
FR 2087-852 T12
ZA 7101-858 T45
GB 1302-275 U01
CA -944-604 V18
CH -564-320 W34
IT 1030-011 B26

66647-S D
DT 2114-710 S42
RU --63-613 B03
FR 2092-549 T17
GB 1347-354 V08
IT 1030-012 B26

69358-S D
CA -884-314 S44
NL -147-189 W44
IT 1030-004 B26+

76427-S D
BE -767-686 S48
DT 2125-701 S50
NL 7107-118 S50
J4 6006-918 T02
FR 2090-925 T16
CA -910-116 T40
GB 1304-804 U05
US 3772-035 U47
IT 1030-014 B26

09390-T D
BE -770-452 T06
NL 7110-244 T07
DT 2136-764 T09
J4 7003-428 T09
FR 2099-546 T25
ZA 7104-862 U10
GB 1365-302 V35
CA -956-502 V45
CH -558-634 W13
US 3889-011 W25
OE 7106-366 X20
NL -160-154 B22
IT 1030-017 B26

12851-T AD
BE -771-265 T08
NL 7111-185 T09
J4 7005-298 T13
DT 2136-109 T17
FR 2104-312 T29
CH -526-928 T47
GB 1329-956 U37
CA -954-407 V39
J7 9014-198 B26

31442-T DE
NL 7114-799 T20+
GB 1377-223 V50+
US 3868-464 W10+
CA -973-492 W37+
DT 2153-232 T21
FR 2110-070 T39
DT 2166-121 U20
J7 4001-871 V06
US 3804-717 V17
J7 6020-575 X30
DT 2167-078 A21+
DS 2153-232 A35+
J4 8013-596 B26
J7 9013-511 B26

39003-T DE
BE -776-260 T24
J4 7011-577 T25
NL 7116-621 T25
DT 2159-614 T26
FR 2117-380 T45
CA -928-719 U27
US 3809-709 V20
GB 1359-470 V28
NL -146-208 W29
CH -568-377 W46
J7 7049-003 A02
DS 2159-614 B26

39576-T D
DT 2157-421 T25
FR 2115-888 T44
CA -948-024 V24
GB 1360-465 V29
J7 4034-824 V41
US 3908-027 W40
IT 1030-018 B26

43869-T DE
BE -777-197 T27
NL 7116-849 T28
DT 2161-511 T30
ZA 7107-687 T32
J4 7014-368 T34
FR 2119-709 T48
GB 1311-638 U13
US 3761-287 U40
CA -948-025 V24
CH -570-122 X07
J5 1063-971 X29
J7 8002-947 A08
NL -157-198 A31
DS 2161-511 B06
J7 9013-499 B26

65274-T DE
FR 2112-859 T41
IT 1030-016 B26

68370-T BD
DT 2214-757 T43
J4 7029-593 T52
FR 2130-731 U06
GB 1312-899 U15
J7 9013-512 B26

72301-T ABD
BE -782-646 T45
NL 7205-609 T47
FR 2134-530 U09
ZA 7202-837 U10
DT 2221-046 U48
DL -100-721 V01
GB 1348-359 V11
CH -550-822 V30
CH -565-181 W38
HU T011-168 X16
DK 7700-335 Y21
IL --39-158 Y39
J4 7039-694 B26
J7 9013-514 B26

75453-T BDE
J4 7023-597 T47
J7 9013-515 B26

81621-T DE
DT 2225-793 T52
US 3776-985 U50
GB 1378-570 V52
CA -973-194 W36
DS 2225-793 B26

29126-U DE
DT 2253-896 U21
US 3893-940 W29
J4 8052-687 B26
J7 9014-075 B26

38990-U D
GB 1323-236 U28
DS 2143-089 B26

48358-U DE
BE -792-413 U34
FR 2163-918 U41
ZA 7207-895 U43
GB 1358-617 V27
CH -555-780 V52
OE 7210-380 B26

56101-U D
ZA 7207-138 U38
GB 1349-217 V14
US 3805-800 V18
CA -962-908 W10
CH -569-432 X02
DS 2251-903 Y26
NL -160-480 B26

79979-U ADF
NL 7307-655 U52
BE -800-435 U52
DT 2324-589 V03
FR 2187-947 V11
US 3844-287 V45
OE 7304-732 X03
GB 1430-634 X14
CA -987-894 X20
DS 2324-589 Y48
IT 1019-544 A11
US RE30-029 B26+

80866-U DE
BE -801-097 U52
NL 7308-671 V02
DT 2331-515 V04
FR 2189-388 V12
J4 9062-417 V34
ZA 7303-784 V43
GB 1421-250 X03
CH -576-953 X29
US 3975-430 X35
CA 1004-686 Y07
NL -155-253 A05
J7 9014-093 B26

02481-V DEM
J4 7033-990 V02
J7 9014-077 B26

11403-V BCD
BE -805-570 V07
NL 7313-052 V17
FR 2201-878 V28
DT 2348-897 V40
US 3917-819 W47
GB 1439-407 X25
CA 1016-456 Y37
IL --43-310 A09
NL -159-584 B13
DS 2348-897 B26

14862-V D
NL 7310-557 V08
DT 2238-519 V23
J4 9050-160 V29
DS 2238-519 W18
CH -570-116 X07
US 3955-489 X21+
GB 1436-358 X21+
NL -160-478 B26

33024-V D
DT 2351-680 V18
NL 7314-303 V18
FR 2202-937 V29
US 3961-080 X24
DS 2351-680 X29
GB 1445-885 X33
J4 9062-675 B26
J7 9013-496 B26

47158-V DE
BE -808-596 V26
DT 2364-114 V27
NL 7317-593 V28
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66305-W BD
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DS 2510-868 B26+

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Section D:

FOOD
DETERGENTS

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ABSTRACTS

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- **II - PATENTEE**
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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	25 JUN - 2 JUL 79	873,063 - 873,278
-Non Delayed	18 JUN 79	874,365 - 874,535
BRAZIL	19 JUN 79	7,707,502 - 7,900,297
CANADA	19 JUN 79	1,056,551 - 1,057,000
DENMARK	11 JUN 79	7,705,072 - 7,805,212
E. GERMANY	4 APR 79 + 11 APR 79 +	58,708 - 126,147
	18 APR 79 + 25 APR 79	134,908 - 135,317
W. GERMANY		
-DAS	28 JUN 79	1,530,967 - 2,842,171
-OLS	28 JUN 79	2,735,900 - 2,856,818
FRANCE*	27 APR 79	2,404,380 - 2,405,000
	(BOPI 1 JUN 79)	
UNITED KINGDOM	4 JUL 79	1,547,921 - 1,548,240
		2,010,651 - 2,011,230
ITALY	10 APR 79	1,030,501 - 1,031,000
JAPAN		
-Unexamined	—	47,030,194 - 51,151,684
	22 MAY - 29 MAY 79	54,063,201 - 54,066,923
-Examined	7 JUN - 13 JUN 79	79,014,401 - 79,015,320
NETHERLANDS	18 JUN - 24 JUN 79	7,713,814 - 7,812,380
NORWAY	11 JUN 79	7,703,878 - 7,901,390
SOVIET UNION	—	622,687 - 624,013
SWEDEN**	18 JUN 79	7,708,750 - 7,903,769
UNITED STATES		
-Reissues	19 JUN 79	Re30,033 - Re30,037
-Patents	19 JUN 79	4,158,242 - 4,158,891
PCT	28 JUN 79	7,900,344 - 7,900,387

*Printed patents actually published mid June, 1979

**Includes numbered Basics from Weeks B09 and B14

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

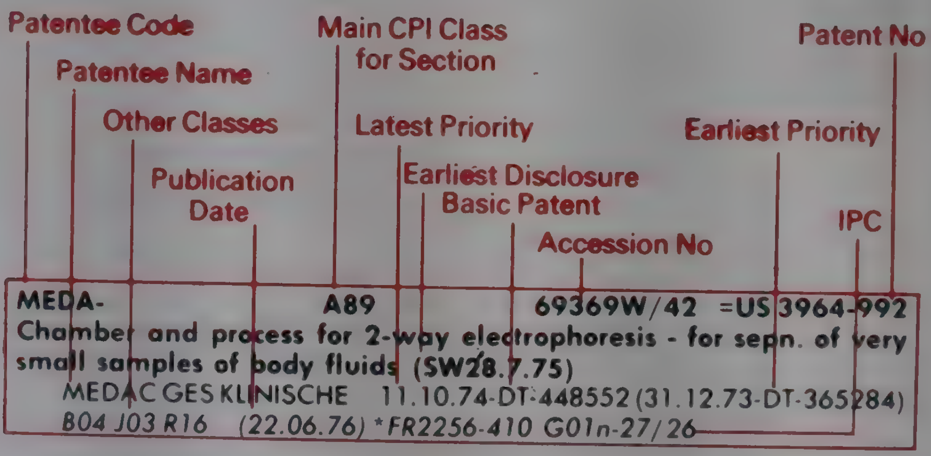
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
A+	Polymer Applns.	G	Printing, Coating, Photographic Chemistry
AE	Polymer & General Chemistry		
B	Pharmaceuticals	H	Petroleum
C	Agricultural Chemistry	J	Chemical Engineering
D	Food, Disinfectants, Detergents	K	Nucleonics, Explosives, Protection
E	General Chemistry	L	Refractories, Ceramics
E+	General Chemistry Applns.	M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
IPC
Patent No

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11 : BAKING

HN/ ★ D11 49079B/27 ★DL-134-910
serving baker's wares - by admixing dough with paste contg.
ulsifier esp. di:acetyl tartrate, saccharose, glucose and baking

SCHNEEWEISS R 17.03.78-DL-204264
(04.04.79) A21d-02/08

ker's wares, esp. small wheat baker's wares, with add- fat and sugar, are kept fresh longer by admixing the ugh with 1-3% compsn. prepd. by (a) mixing an emulsifier p. diacetyl tartrate, with saccharose, glucose and baking t, heated to 40°C, and (b) working to a paste contg. 15- % emulsifier, 30% baking fat, 30-40% saccharose and -20% glucose.

Prods. are completely fresh 9 hrs. after baking. Baking l. is increased by up to 10%. Crumb softness and loose- ess, pore uniformity and browning are improved. 17.3.78 s 204264 (9pp200)

AUL/ D11 74430Y/42 =DS 2759-302
otary oven for heating prepd. pizzas - has helical path and coaxial otor to propel and rotate pizzas

PAULUCCI J F 02.04.76-US-672849
*+P28 (28.06.79) *DT2714-761 A21b-03*

Pizzas are baked in a high temp. oven in hot air. The oven consists of a vertical cylindrical chamber in which a spiral bed is mounted with an outer lip to guide the movement of the pizzas down the bed. A central shaft rotates and causes the pizzas to be rotated and descend the spiral. The pizzas are fed into the top of the oven in baking forms and are removed at the bottom via a radial chute.

The construction is such that the pizzas cause no disruption of the drive mechanism at the outlet of the oven. The construction is simple and the free path for the pizzas ensures that no pieces of food remain in the oven to cause odours or burning. 1.4.77 as 759302 Div.ex. 2714761 (10pp1370)

WERN ★ D11 49266B/27 ★DT 2757-618
Multideck baking oven - with cut/off valve for one deck coupled to draught control throttle in waste gas flue

WERNER & PFLEIDERER 23.12.77-DT-757618
(28.06.79) A21b-01/26

A multi-deck baking oven with circulating hot gas is equipped with a shut-off device for the gas flow to one deck with a throttle valve for the induced draught control. Shut-off and throttle valve are actuated by a common linkage in such a way that opening of the shut off valve closes the throttle, and vice versa.

Provides a simple way of adapting the combustion conditions to the connection or disconnection of one deck. 23.12.77 as 757618 (7pp39)

NISP ★ D11 49447B/27 ★DT 2856-195
Noodle dough paste - in sandwich layers with differing specified starch and albumin content

NISSIN SHOKUHIN KAISHA 27.12.77-JA-160628 (27.12.77-JA-160627)
(28.06.79) A23l-01/16

Dough paste for noodles or the Japanese 'Udon' is made o wheat flour as a multi-layer laminate. An inner layer is enclosed in sandwich fashion between pairs of outer layers The ratio of starch to albumin in each of the outer layers is held much higher than for the inner layer.

Such a paste can be produced in mass prodn. without risk of breaking up. The paste can be quickly prepd. for consumption by hot water. The swelling in hot water is kept within limits. 27.12.78 as 856195 (25pp39)

TOSU- ★ D11 49509B/27 ★GB 2010-661
Forming dried foamed noodles - by circulating hot moist air through steamed noodles prior to cooling

TOYO SUISAN KAISHA 23.12.77-JA-155183
(04.07.79) A23l-01/16

Prodn. of dried and foamed noodles of the α-type includes repeatedly blowing circulating moistened hot air at 105-180°C for several mins. The air is moved onto and through the masses of steamed noodles at 2-10 m./sec. The noodles are continuously brought into a sealed drying chamber. The masses of noodles discharged from the drying chamber are discharged into a cooling chamber where they are contacted with cool, dry air.

The method is used to produce foamed noodles which may be used as an instantly cookable food. Except for the first few mins. of operation the noodles are not scorched by drying process. Also the resulting noodles have a pleasant taste having lost their dough odour. 1.12.78 as 046864. (6pp295)

RIJK- ★ D11 50232B/27 ★NL 7714-151
Prodn. of egg rolls - involves rolling the jacket from a dry dough so that no pre-baking is required and a non-porous jacket is formed

MACH C RIJKAART BV 20.12.77-NL-014151
(22.06.79) A21c-09/06

An egg roll is manufactured by rolling a dough consisting primarily of flour to a strip of the required thickness, cutting it to lengths and wrapping it a number of times around the filling to achieve the desired structure. The rolling process consists pref. of a number of rollers in series to reduce the thickness to 0.5mm. The viscosity of the dough is higher than 10,000 cp.

Due to the dry consistency of the dough, no preliminary baking operation is required so that the dough does not become porous. The consequent quality of the egg roll is considerably improved. 20.12.77 as 014151(5pp1370).

D12 : MEAT ; FISH PROCESSING

DALM- D12 04209A/03 =DS 2741-380
Treating shell fish esp. krill to obtain the whole muscles - by heating, mechanically treating then separating

DALMOR POLOWOW DALE 14.09.76-PO-192426
*(28.06.79) *BE-858-698 A22c-29/02*

Edible flesh is obtd. from antarctic krill by heat treating the krill in water at 70-150°C.. washing and cooling with the krill at 5-1500 g, whilst abrading the krill against a series of rods or sieves whereupon the scales and head spearate from the tail flesh. The final sepn. occurs through flotation in which the tail sinks and the remaining parts float.

Method enables edible, relatively damage-free flesh to be obtd. from the very small shrimp-like krill without including the possibly harmful contents of the stomach. 14.9.77 as 741380 (4pp1370)

ED- ★ D12 49236B/27 ★DT 2756-995
kinless sausage mfr. - with infrared heating of strand moving ong tube and slicing cutter
RIEDEL-TECHNIK GMBH 21.12.77-DT-756995
A97 (28.06.79) A22c-11

kinless strands of sausage are produced by pushing the ausage meat by a worm section through a tube where it is xposed to infrared heat. The next section can be used to ool the sausage by expanding compressed air and at the utlet from the tube, the sausage is cut into slices ready or sealed packing.

The arrangement saves much manual labour for removng the skin before the sausage is sliced and packed. It lso saves the disposal problem for the water in which oiled sausage is treated. 21.12.77 as 756995 (12pp39)

NME- ★ D12 49352B/27 ★DT 2843-388
Moulding press for meat, esp. boneless ham - with mould in five arts for easy exchange
IND MEC CGZ ALIMEC 15.12.77-IT-030728
(28.06.79) A22c-07

moulding press for meat, esp. for boneless ham, has on he press table a fixed part of the mould. Two lateral arts, which can be moved by hydraulic pistons towards ach other, and one mould part, which represents the tail nd of the ham and can be moved at right angles to the ther two, form the finished shape of the ham when fully ushed together. An ejector removes the finished ham rom the mould.

The parts of such a mould can be easily exchanged for thers (dovetail joints) if other shapes are desired. The nodule system simplifies stockkeeping and reduces the umber of moulds to be kept in stock. 5.10.78 as 843388 12pp39)

OME= ★ D12 50466B/27 ★SU -623-153
ausage meat structural-mechanical properties evaluation - using lling indenter which actuates electrical circuit, to rotate easurement recorder discs
MOSC MEAT DAIRY IND 21.02.77-SU-455171
R16 (22.08.78) G01n-33/12

evice for studying the structural-mechanical properties f visco-plastic products, e.g., sausage meat, comrises a body, rod with indentor, and mechanism to reord the penetration of the indenter. The measurement ccuracy and operational convenience are increased by dditionally providing the recording mechanism with a raking mechanism, stop and buffer elements fo the inentor and control elements. The indentor penetration ecorder mechanism is made from two discs disposed on he same axis, one fastened so that it is free to rotate and s linked by a roller to the braking element, and the other irmly connected to the spindle and engaging with the rod f the indentor through a pinion wheel via a toothed segment.
osoi, V.D., Zvonov, O.V., Titov, E.I. Bul. 3/5.9.78. 21.2.77. as 455171 (3pp29)

EL- D12 42077W/25 =SU -623-495
oultry-plucking machine - with plucking elements having a pulsed otion
ELELMEZESIPARI TERV 05.12.73-HU-EE2191
*(21.08.78) *NL7415-893 A22c-21/02*

Appts. for plucking poultry has rotatable plucking discs with felixible plucking elements supported by beam-type carriers. The beam-type carrier are articulated not on to each other but also to the machine frame, and a proportion of the series of plucking discs are fabricated partly or wholly of flexible material, while on the remaining plucking discs the plucking elements are arranged on a circle eccentric w.r.t. the axis of rotation of th disc.

The use of a special type of motion for the plucking elements gives better utilisation of the energy supplied and therefore better plucking of the poultry.
Nad, S., Sigeti, M. Bul. 33/5.9.78. 4.12.74. as 092621 (4pp)

LENG= ★ D12 50477B/27 ★SU -623-5
Animal stunning device used prior to slaughtering - has chamb with frame and wall mounted electrodes which spread electroly on animal skin
LENGORISPOLKOM VYMP 03.02.77-SU-450065 (03.02.77-SU 450064)
(01.08.78) A22b-03/06

Device for stunning animals using electricity, comprise a chamber with a bottom on which a supporting frame is installed and rotating electrodes. The electrical stunnin process is speeded up, by fitting the electrodes with container for the electrolyte. These are made hollow and have holes to allow the electrolyte to pass through on to the skin of the animal. The electrodes are mounted on the walls of the chamber between the supporting frame and the bottom. The holes in the electrodes are made as slits and filter cloth is placed inside the hollow electrode
Petrakov, V.K., Fasolko, K.Yu. Bul. 34/15.9.78. 3.2.77. as 450064 (3pp29)

DALM- D12 19714A/11 =US 4158-24
Machine to extract edible muscles from crustacea - esp. antarcti krill fresh or frozen on ship or shore
DALMOR POLOWOW DALE 03.11.76-PO-193450
*(19.06.79) *BE-860-439 A22c-29/02*

Apparatus for shelling antarctic krill comprises a highspeed rotor vertically in a casing and cooperating with an open container holding krill. The container has a passag for gravity discharge of processed material. The casing has a discharge passage on a bed and has a removable sealing lid.

A replaceable working disc is secured to the rotor, an a cylindrical chute with a circular base is above the disc line with the shaft axis. The chute is vertical and adjustable by a retaining ring. A toothed ring in the chute lowe end mounts bars and angle bars on a horizontal collar wit the bar tips chamfered and the angle bar tips not less thar 20 mm below the disc working face outer edge. 20.10.77 as 844104 (10pp1358)

See Also

D15 FR 2404605 D15 FR 2404605

D13: OTHER FOODSTUFFS

OPF- ★ D13 48997B/27 ★BE -873-171
ozen potato chips prepn. - by precooking cut chips in non-fat edium until just not cooked, and partially drying
TOP FOODS ELBURG 02.01.78-NL-000047
(29.06.79) A23l A23p

eady prepd. prod. for potato chips and similar prods. is ade by first cutting peeled potatoes into chips or other hapes and opt. blanching and cooling them. The chips are hen heat treated in a non-fat medium for a period such hat they are still just not cooked, after which they are partially dried.

The chips contain little fat and have good storage properties at normal refrigerator temps. (4°C). When required for consumption, they can be deep dried easily in hot fat to give high quality fried chips. 29.12.78 as 873171 (10pp513) (F1)

- ★ D13 49000B/27 ★BE-873-181

asing the nutritional value of wheat milling wastes - mainly , by grinding to specified particle size

EALDYME 22.08.78-FR-024333 (10.01.78-FR-000500)

(29.06.79) A21d A23l

wastes obtd. during the various stages of wheat grind- are ground or micronised to obtain a product of which east 85% passes a 100u sieve and almost all passes a u sieve. The product is used in food compsns., esp. ad. The process at least doubles the nutritional value he material which is mostly bran. In bread, advantages obtd. in digestibility, texture, colour, taste and con- vation.

The process is pref. applied to soft wheat and before ling the wheat is pref. washed with at least 2% of nking water. The amt. used in bread is pref. 1-5%, esp. -1.7%. 29.12.78 as 873181 (13pp597)

JJ/ ★ D13 49014B/27 ★BE-873-265

ter-soluble sugar prod. contg. essential oils - prepd. by pregnating sugar with the oil, used in food, drinks and odorising compsns.

POUJADE O 03.01.78-FR-000088

(D22) (02.07.79) A23l C11b

e sugar prod. is prepd. by impregnating the sugar with e oil without using solvents and then storing the sugar r a sufficient time to completely impregnate it and to low reaction between the constituents of each to form a ter-soluble prod.

The prod. is used to make aq. compsns. and aq. infu- ons. It can be used to make drinks or as a food additive p. in desserts, ices, and in the prepn. of meat and vege ables. The solns. may also be used as deodorising comp ns. The process overcomes the disadvantage of the water nsolubility of the essential oils. 2.1.79 as 873265 (6pp)

JOM- ★ D13 49035B/27 ★BE-874-413

mpsns. contg. desired sodium potassium magnesium calcium tios - give electrolytic balance in pharmaceuticals and foods such table salt, milk products, cheese, sausage, chocolate, drinks etc.

SUOMEN LAAKETEHDAS 24.02.78-SF-000627

B06 (18.06.79) A23l

ompsns. for oral admin. which contain cations in desired hysiological ratios, are prepd. by mixing the cpds., in nown manner, in proportions such that the molar ratios f the obtd. products falls within the following limits:-

otassium:Sodium=1:10 to 100:1 (pref. 1:1) and/or
otassium:Magnesium=1:10 to 100:1 (pref. 3-4:1) and/or
lagnesium:Calcium=1:10 to 100:1 (pref. 1:2-1).

Used for preparation of products with cations in the esired ratios so as to avoid health problems due to food, nedicaments, etc. contg. disproportionate ratios of lectrolytes e.g. electrolyte inbalance may lead to hyper- ension, cardiac troubles as vascular degeneration. 3.2.79 as 874413 (34pp395)

ERF- ★ D13 49043B/27 ★BE-874-461

Chewing gum contg. liq. flavoured filling - which contains liq. orbitol, propylene glycol and flavouring

PERFETTI SPA 13.03.78-IT-021167

(18.06.79) A23g

The gum, in which a filling is encapsulated in a chewing um body, contains a filling liq. comprising an aq. soln. contg. dissolved solids, liq. sorbitol in an amt. of 8-13 (10)% of the filling liq. and a propylene glycol soln. of a lavouring agent in an amt. of 2-5(4)% of the filling liq.

A stable filling, which on storage retains both its luidity and flavour intensity, is provided.

The ratio of flavouring agent to propylene glycol is pref. 1:4. The filling liq. is prepd. by adding the sorbitol liq. and flavouring soln. to a 75% aq. soln. of mixed sugars at room temp. 26.2.79 as 874461 (8pp597)

OETK- ★ D13 49054B/27 ★BE-874-511

Prepn. of frozen vegetable mixts. for mixing with water - using granulation step to prevent sepn. of constituents

OETKER TIEFKUHLKOST 14.07.78-DT-830918

(18.06.79) A23l

The prepns. comprise a mixt. contg. blanched vegetables with more or less pre-cooked constituents such as pota-

les, in which are incorporated dry thickeners contg. taste enhancers and flavourings. An esp. fabricated granulate is fixed on the frozen vegetables to present as far as possible sepn. of the constituents.

The products are mixed with water to obtain savoury dishes. The above prevents sepn. of the components and enables individual portions to be removed without variation in quality. 28.2.79 as 874511 (8pp597)

CHAJ/ ★ D13 49058B/27 ★BE-874-522

Health additive for human food comprising defatted soya - contg. 35 per cent or more soya polysaccharide(s)

CHAJUSS D 05.01.79-IL-056383

(18.06.79) A23l

The additive consists of a derivative or extract of soya, which is substantially free from fats, mono- and oligosaccharides and other water-soluble soya cpds. and which contains 35% or more of soya polysaccharides.

It may be prepd. by (a) aq. extraction of non-roasted defatted spya flower followed by drying; (b) as (a) using a moderately alkaline medium; (c) isoelectric extraction using an acid aq. medium followed by aq. alkaline extraction; (d) aq. alcoholic or sl. acid medium extraction followed by drying and grinding, followed by sepn. of fines to give fractions rich and poor in polysaccharides or (e) aq. extraction by steeping and wet grinding of whole soya followed by sepn. and drying.

The above is beneficial to health e.g. lowering of choles -terol totals and blood pressure, improved glucose tolerances and less digestive troubles. 28.2.79 as 874522 (8pp)

BALL/ ★ D13 49078B/27 ★DL-134-909

Butter making machine - with beater strips on revolving spindle and disc on cream entry end

BALLA A 16.03.78-DL-204203

P13 (04.04.79) A01j-15/06

A butter-making machine consists of a horizontal drum with a revolving spindle, fitted with beater strips. A disc at the cream inlet end leaves a large annulus against the cylinder walls. The preferred number of beater strips is six or eight.

The machine is uncomplicated. It is capable of converting a fat-in-water emulsion into a water-in-fat emulsion with a minimum of energy consumption. 16.3.78 as 204203 (9pp39)

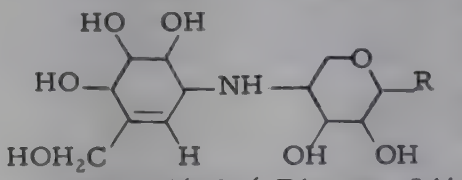
FARB D13 67509W/41 =DS 2462-836

Microbial amino-sugar cpds as feed-additives - to increase meat/fat ratios and improve feed utilization

BAYER AG 21.03.74-DT-413720 (21.03.74-DT-462836)

*B03 C02 (28.06.79) *DT2413-720 A23k-01/22*

A premix for feedstuffs contains 0.1-50 wt.% (0.5-5.0 wt.%) of $\geqslant 1$ cpd. of formula:



(where R is an oligosaccharide chain contg. 1-40 hexose units) to reduce fat formation and increase lean meat growth.

21.3.74 as 462836 Div.ex. 2413720 (7pp922)

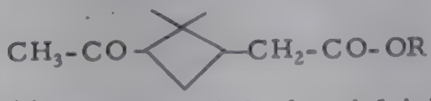
FIRM D13 97397X/52 =DS 2624-654

Perfumes and flavourings contg. cyclobutane derivs. - viz. 2,2-dimethyl 3-acetyl cyclobutyl-acetate esters

FIRMENICH SA 06.06.75-CH-007355

*B05 C03 E15 +P15 (D23) (28.06.79) *NL7605-668 A23l-01/22 A61k-07/46 C11b-09 C11d-03/50*

A fragrance contains a cpd. of formula:



(I) (where R = 1-6C alkyl).

(I) have an original and fairly intense green note redolent of reinous, pine or castoreum notes and may be used in amts. of (gen.) 0.5-10 wt.% of a perfumed compsn. 2.6.76 as 624654 (3pp922)

BARN- D13 29152Y/17 =DS 2654-597

Sorbitol and xylitol compsn. for sweetening edible prods. - esp. sweets and chewing gum, not causing tooth decay

BARNANGEN AB 11.12.75-SW-014030

*B05 E17 (28.06.79) *BE-849-279 A23l-01/23*

A sweetening agent comprises 1-50 wt.% xylitol (I) and balance sorbitol (II). (I) is pref. ⩽ 25 wt.% and the (I):(II) wt. ratio is 1:6-30.

The agent, which is less caries-causing than cane sugar, is esp.useful in chewing gums and sweeteners. 2.12.76 as 654597 (8pp922)

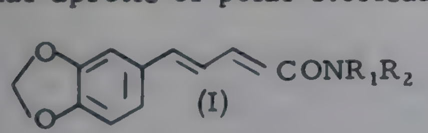
HAIM D13 70992A/40 =DS 2712-779
Cylindrical cheese mould - with support mats on both sides of bottom surrounded by radial slots
ALPMA ALPENLAND-MAS 23.03.77-DT-712779
*P13 (28.06.79) *DT2712-779 A01j-25/13*

A cheese form comprises a cylindrical wall and closed floor. When the form is stacked, the floor serves as a floor surface for the cheese in the form whilst being in contact with the upper surface of the cheese in the form below it. To permit the whey to drain from the cheese, the floor is equipped both above and below with grids. Slots in the walls of the floor retaining part of the form allow the collected whey to drain from the form.

Due to the grid construction of the floor and draining of the whey, the cheese does not adhere to the floor of the form and can be easily removed. 23.3.77 as 712779 (4pp1370)

FARB ★ D13 49201B/27 ★DS 2757-483
Piperonylidene-crotonic acid amide derivs. prodn. - from piperonal and crotonic acid amide, useful as condiments, insecticides, analeptics etc.
BAYER AG 22.12.77-DT-757483
B02 C02 E13 (28.06.79) C07d-317/60 C07d-405/06 C07d-413/10

Prodn. of piperonal derivs. of formula (I), comprises reacting crotonic acid amides of formula $CH_3.CH{=}CH.CONR_1R_2$ (II) with piperonal in presence of a hydroxide in an inert polar aprotic or polar sterically-hindered protic solvent.


(I)

(R_1 and R_2 = H, opt. subst aliphatic, araliphatic or aromatic hydrocarbyl, or together complete a heterocycle. They cannot both be H). The hydroxide used is of formula $R_3R_4R_5R_6Z^+ OH^-$ or $A^+ OH^-$ (Z = P or N). R_3, R_4, R_5, R_6 = opt. substd. alkyl, cycloalkyl, aralkyl or aryl, or two complete a heterocycle (opt. contg. other heteroatoms); when Z is P up to 3 of them can be dialkylamino. A^+ = alkali metal complex of a crown ether).

(I) are useful as condiments; additives for germicidal compsns.; insecticides or insecticide synergists, and analeptics for morphine and barbiturate poisoning.

Process has few reaction stages; requires no reagents which require special handling techniques; and gives higher yields. 22.12.77 as 757483 (7pp1251)

HAUS- ★ D13 49250B/27 ★DT 2757-481
Soy bean bitterness removal - by exposing shelled bean halves to infrared radiation
HAUSER & CIE AG 22.12.77-DT-757481
(28.06.79) A23l-01/20

The bitterness is extracted from soy beans and chemicals such as the trypsin inhibitor and are inactivated without having to use any chemical reagents. The moist beans which have fallen apart are exposed to infrared radiation for 1-3 minutes.

This fully preserves all valuable ingredients of the soy beans but removes the unpleasant taste and smell components and the inhibitors. 22.12.77 as 757481 (9pp39)

MKTT- ★ D13 49452B/27 ★FR 2404-392
Draining whey from curds in cheese mould - in cooking vessel to eliminate need for separate vacuum draining chamber
MKT-TEHTAAT OY 30.09.77-FR-029594
P13 (01.06.79) A01j-25/11

The process is of the type in which a mixt. of curds and whey is piped from a cheese cooking vessel into a strainer mould which retains the curds while draining off the whey. The mould is now located in the open top of a cooking vessel. The mixt. of curds and whey is pumped into the mould which drains whey back into the cooking vessel. Pref. the mould presents an open top above the surface of whey in the vessel, while the drainage area of the mould is submerged below the whey surface.

The mould is pref. suspended from a lifting block
which it can be raised clear of the vessel. The lifting
block should be hung from a runner on a horizontal be
The curds are not exposed to atmos. during draini
as in the case of cheese cloth draining. This is achie
without the expense and inconvenience of a separate,
ed top, vacuum draining chamber. The new arrangem
can be used to convert existing installations. 30.9.77
029594 (9pp448).

GENO D13 36173Y/20 #GB 154
Dry acidulent powder compsns. useful in foodstuffs - which co
a liq. acid e.g. phosphoric acid, and a soluble carbohydrate
GENERAL FOODS CORP 13.05.74-US-469158 (24.03.7
012518)
*A97 (04.07.79) *US4022-924 A23l-01/19 C08l-03/02*

A free-flowing dry acid powder compsn. is prepd. con
⩽ 30wt.% of acid. Prepn. is by co-drying a carbohyd
with a liq. acid and/or an aq. soln. of an acid salt of
phoric acid, such that temp. of drying is ⩽ 90°C.

Carbohydrate is a dextrin contg. a preponderance o
oligomers and DE of 1-15, a hydrolysed granule starc
with DE < 1, a gelatinised hydrolysed granule starch
DE < 1, or a mixt. of ⩾ 2 such starches. Pref. dext
has DE of 1-5, and degree of polymerisation of 1-20.

Esp. used in the prepn. of food prods., esp. where
liq. acid used is acetic acid, lactic acid and phosphori
acid. 24.3.77 as 012518. (5pp931)

PLAS- ★ D13 49512B/27 ★GB 201
Easily cleaned filter esp. for milk - with frusto/conical
elements nested together and encased in plastics housing
PLASTIC ENGS LTD 26.10.78-GB-042125 (26.07.77-GB-03141
A88 J01 (04.07.79) B01d-29/26

A filter includes a cup-shaped plastics housing having
central longitudinal axis, and a one-piece moulded inte
fitting cap. The filter is connected into a flow line to
vide axial entry to the housing interior for the fluid to
filtered, and an outlet for the filtered fluid.

Filter elements are mounted in the housing symmet
ally about its axis and are under pressure between the
housing and the cap. The elements may be removed o
opening of the cap. Each filter element comprises a p
tics frame which supports a plastics (pref. nylon) mes
for filtering or straining flowing fluid. Pref. the cap
formed of ABS and the housing of TPX.

The filter is esp. designed for filtering milk and ma
be disassembled for cleaning. 26.10.78 as 042125.
(7pp295)

FAEM- ★ D13 B/27 ★IT 1030-
Solid and semi-liquid coffee product - based on ground, roas
coffee, lipids and carbonic acid
FAEMA SPA 24.11.67-IT-023095
(10.04.79) A23f

CAND- ★ D13 B/27 ★IT 1030-
Chewing gum cigarette
CANDY GUM SPA 19.12.70-IT-033279
(10.04.79) A23g

RAIO/ ★ D13 B/27 ★IT 1031-
Apricots and peaches cutting and destoning installation - with no
drive for trolley movement and positioning
RAIOLA G 04.08.78-IT-040456
(10.04.79) A23n

ASAH ★ D13 49821B/27 ★J5 4064-
Additive for paste or cream food - composed of white, powd
crystals of cellulose, imparting improved stability and h
resistance
ASAHI CHEMICAL IND KK 31.10.77-JA-129694
A97 (24.05.79) A21d-02/18 A21d-13/08 A23c-15 A23d-05 A
01

An additive (I) for pasty and creamy foods, composed of
white and powdery fine crystal of cellulose, which is ob
by hydrolysis of cellulose materials, such as linter, pu
regenerated cellulose fibre, etc., with acid or base and
has polymerisation degree 75-375, loose-packing appar
specific volume 1.6-3.1 c.c./g, angle of repose < 42,
80 wt.% of the fraction larger than 200 meshes and tapp
apparent specific volume > 1.4 c.c./g.

y the addn. of (I) to food, emulsion-stability and heat-
stance can be improved, viscosity and thixotropicity
increased and syneresis is prevented. (I) is used in
r paste, whipping cream, ice cream, butter, margar-
shortening etc. 31.10.77 as 129694 (5pp42)

A/ ★ D13 49822B/27 ★J5 4064-672
noval of cyanide from bean jam - by adding hydrogen peroxide
sodium hypochlorite
NAKAMURA N 29.10.77-JA-129853
(24.05.79) A23g-03

moval of cyanide (I) from bean jam (II), comprises
dn. of hydrogen peroxide (III) and/or sodium hypochlor-
(IV) to (II) for oxidn.-decompsn. of (I).
Recently, white bean, butter beans etc. imported from
ith east Asia have been used as raw materials for (II).
wever, these beans sometimes contain (I). (III) and (IV)
n decompose (I) to nitrogen and carbon dioxide. As (III)
d (IV), (III) contg. 12% of effective chlorine and 35 wt.%
/)-soln., that are available on the market, can be used.
.10.77 as 129853 (5pp42)

KA- ★ D13 49876B/27 ★J5 4065-176
idised bed granulation process - with addn. of binder soln.
ntrolled to keep water content steady
OHKAWARA SEISAKUSHO 02.11.77-JA-130740
J04 (25.05.79) A23c-09 B01j-02/16

anules having large apparent density, narrow granular
ze distribution and uniform granular size are obtd. by a
uidised layer granulation process using conventional
pts. not requiring any special installations.
Process comprises previously determining experiment-
ly the water content of matter to be granulated to obtain
esired granular size and apparent density; spraying there
on a binder soln. under high spraying rate at the initial
ranulation step until the water content reaches to the pre-
etermined value; altering the spraying rate of the binder
oln. so as to be equal to the drying rate of fluidised layer,
.e. to supply only the water content of the granules to be
emoved by hot wind passing through the fluidised layer, to
naintain the water content under the pre-determined value,
fter the water content reaches to the pre-determined val-
e; and transferring the granules to a drying procedure
fter the elapse of pre-determined granulating time.
.11.77 as 130740 (7pp34)

EKI/ ★ D13 50001B/27 ★J5 4066-276
Ruminant feed compsn. prodn. from starch material - by adding
non-proteinic nitrogen cpd., vitamin(s , mineral sources and
ellulosic material, heating and moulding into filaments
SEKI R 02.11.77-JA-130944
C03 (28.05.79) A23k-01/22 A23n-17

A non-proteinic nitrogen cpd. (e.g. urea) is dispersed in
starch material and various kinds of vitamins and min-
eral sources together with a cellulose material are added
and the resulting compsn. is heated at 60-120 °C. The
obtd. material is compressively moulded into filaments
and the filaments are dried.
The food compsn. is mixed with a conventional fodder
as a feed for cattle and goats. 2.11.77 as 130944 (3pp15)

SATO/ ★ D13 50138B/27 ★J5 4066-700
Alkali salts of protein prodn. - by allowing protein to absorb an acid soln. contg. hydrogen peroxide, swell and absorb alkali carbonate
SATO M 05.11.77-JA-132174
(29.05.79) C07g-07

Alkali salts of protein are produced by (I) allowing (1) de-
fatted soybean, milk casein alone or mixed with each oth-
er to absorb (2) an acid soln. contg. a low concn. of
H_2O_2 and swell to such an extent that Component (1) has a
powder fluidity, and (II) allowing Component (1) to adsorb
homogeneously (3) powder carbonates of alkalis in a chem-
ical equiv. such that the water-soluble dispersion of the
target prod. becomes neutral, and (III) drying Component
(2) subjected to Steps (I) and (II) with air stream.
Acid solns. of pH 3 comprising phosphoric acid, citric
acid, succinic acid, fumaric acid, etc. are used. Com-
ponent (3) includes, e.g. carbonates or bicarbonates of soc
sodium, calcium, ammonium, potassium. The defatted

MORG ★ D13 50194B/27 ★J7 9014-653
Cold water soluble powdery food prodn. - by mixing powdery food with molten sorbitol or conc. aq. soln. of sorbitol, extruding into threads and pulverising
MORINAGA MILK KK (TOAG) 24.04.73-JA-045672
(08.06.79) A23c-09/10 A23d-05 A23f-01/12 A23j-03 A23l-01

Method comprises mixing 5-150 pts. wt. powdery food with 100 pts. wt. molten sorbitol or conc. aq. soln. of sorbitol ($\geq$85 wt. %) at 60-96°C for 5-20 mins. extruding the paste into slender threads and pulverising the threads. The powdery food thus obtd., can dissolve readily in cold water. 24.4.73 as 045672 A231-1/00, A23c-9/10, A23d-5/00 A23f-1/12, A23j-3/00 (8.6.79) TOWA KASEI KOGYO KK & MORINAGA MILK KK (8pp83) (J4 9132251)

HOSK ★ D13 50195B/27 ★J7 9014-655
Vacuum-packed corn on the cob prodn. - by blanching, filling with water or seasoning soln. into bag, sealing, sterilising and cooling
HOKKAI SEIKAN KK (YUKI-) 22.08.73-JA-094075
(08.06.79) A23l-01/10

Method comprises (a) blanching corn on the cob (I) with hot water or seasoning soln.; (b) filling 100 pts. wt. (I) and 30-4 pts. wt. water or seasoning soln. into a heat-resistant, air-impermeable laminate bag; (c) sealing the bag under a pressure of 76-35 cm Hg pressure; (d) sterilising it with heat and pressure; and (e) cooling it under the same pressure. 22.8.73 as 094075 A231-1/10. (8.6.79) HOKKAI SEIKAN KK; YUKIJIRUSHI ANDES SHOKUHIN KK (3pp83) (J5 0046852)

HAUS- ★ D13 50196B/27 ★J7 9014-656
Mustard paste prodn. - from black mustard powder and white mustard, opt. with addn. of preservative
HAUSU SHOKUHIN KOGY 27.01.73-JA-011367
(08.06.79) A23l-01/22

Method comprises heat-treating black mustard in the wet state, milling it into a powder, and mixing the powder with sinigrin soln. extracted from black mustard and enzyme soln. extracted from white mustard. A small amt. of oil or $MgCl_2$ may be added as preservative. 27.1.73 as 011367 A231-1/221 (8.6.79) HAUSU SHOKUHIN KOGYO KK (5pp83) (J4 9094873)

HAUS- ★ D13 50197B/27 ★J7 9014-657
Mustard paste prodn. - from black mustard powder, white mustard powder, edible oil and water
HAUSU SHOKUHIN KOGY 23.03.73-JA-033334
(08.06.79) A23l-01/22

Method comprises mixing heat-treated black mustard powder with white mustard powder on an enzyme soln. extrac ted from white mustard, allyl mustard oil extracted from black mustard, edible oil, and water. 23.3.73 as 033334 A231-1/221 (8.6.79) HAUSU SHOKUHIN KOGYO KK (6pp83) (J4 9118869)

OKAW- ★ D13 50198B/27 ★J7 9014-659
Boiling and sealing rice in package - using moisture-permeable container obtd. by sheeting pulp slurry contg. polyethylene or polypropylene powder on paper making machine
OKAWA KENKYUSHO 00.00.74-JA-139008
A92 F09 P28 (A17) (08.06.79) A23l-01/ A47j-27*

Method comprises placing rice, water and other ingredient dients in a moisture-permeable container produced by sheeting a mixt. of pulp slurry and 60-180 mesh PE or PP powder, by a paper-making machine and moulding the sheet at 150-200° C, 30-70 Kg/cm^2, capping container with heat-resistant film by sealing with adhesive, and steaming container to boil the contents. 31.7.73 as 139008/74 A47j-27/00, A231-1/01 (8.6.79) OKAWA KENKYUSHO KK (3pp83) (J5 0088275)

AJIN D13 38073W/23 =J7 9014-669
Crystallising monosodium glutamate pentahydrate - by cooling solns of sodium glutamate to below minus 0.8 deg C
AJINOMOTO KK 03.09.73-JA-099101
*E12 +R29 (08.06.79) *FR2242-372 +C12d-13/06*

Crystals of monosodium glutamate pentahydrate (I) are prepd. by keeping an aq. soln. of Na glutamate contg. one or more of the following impurities: amino acids, organic acids, metallic ion chelatable by glutamic acid or its salts (esp. Ca) and coloured substances, at below -0.8°C so as monohydrate, (I) crystallises pure in the presence of impurities normally present in crude fermentation broths. The aq. soln. may be a fermentation broth in which the NH_4 ions have been replaced by Na or a soln. of glutamic acid inters., produced during processing of the broth. 3.9.73 as 099101 C12d-13/06 (8.6.79) AJINOMOTO KK (5pp) (J5 0049227)

DSOM- ★ D13 50224B/27 ★NL 7713-819

Appts. for mechanically salting fresh pickled cheese - has pneumatically operated head on movable carriage with suction ports and brine injection needles

DSO MLECHNA PROM 14.12.77-NL-013819

P13 (18.06.79) A01j-27

Pickled cheese is salted and packed by means of a device mouned on a rail track equipped with a vertically moving piston to which two chambers are attached, one for drawing and maintaining a vacuum, and the other for feeding salt solution into the cheese. The vaccum chamber is connected to a series of vaccum heads with suction ports which are placed in contact with the cheese and hold the head firmly against it. The ports are also equipped with valves so that, in the event that the surface of the cheese does not permit one of the heads to bed down, the valve closes and the vacuum in the chamber can still be maintained.

The salt solution chamber is coupled to needles which pass through the vaccum chamber and ports although isolated from them and are injected into the cheese as the head is lowered. The needles have drainage ports which distribute the injected brine into the cheese. The injection needles are pref. 7-9 cms long with an internal diameter of 0.4-0.8m.

The device enables the salting of the brine to be incorporated into a packing line with a saving of labour and space. 14.12.77 as 013819(8pp1370).

UNIE- D13 02744V/02 =SU -623-496

Urea/mineral additive for maize fodder - by rapid homogenisation and prilling

UNIE VAN KUNSTMESTFAB (UNI -) 23.06.72-NL-008608

*C03 (11.07.78) *NL7208-608 A23k-01/22*

A urea additive for "cut maize" (a fodder obtd. by cutting maize while still green, followed by chapping and ensilage), comprising a mixt. of 1 pbw urea and 1 pbw of a mineral component contg. 60% dicalcium phosphate and 20% NaCl, the remainder being sulphates of Na, Mg, Zn, Fe, Mn, Cu and Co, is produced by homogenising the minerals with the required amt. of the molten urea at a rate such that $\leqslant \frac{1}{3}$ of the NaCl passes into soln. and converting the suspension into prills by spraying and cooling. The homogenisation time is pref. $\leqslant 7$ (esp. 4-5) secs.

The rapid homogenisation prevents the NaCl from lowering the crystn. point of the melt, thus giving hard prills.

Hoogendonk, J. W. Bul. 33/5.9.78. 22.6.73. as 943996 (3pp)

GRAI= ★ D13 50500B/27 ★SU -623-576

Rice grain processing - including hulling, separation of impurities, polishing and dividing rice into fractions according to size

GRAIN PRODUCTS RES 28.12.76-SU-435300

P41 (01.08.78) B02b-05/02

Rice grains prodn. involves hulling, separating the fractions of the lighter impurities, polishing and separating the rice in accordance with size. The process is intensified by subjecting the rice, during hulling, to partial simultaneous polishing, with the whole mixture of hulled and un-hulled grains treated during the main polishing operation. The rice, after removing the impurities, is directed into a screw-type hulling machine, the resulting mixture of rice and hulls being separated according to their aerodynamic properties.

Lopatinskii, N.S., Chirkova, L.V., Shcheglov, M.A. et al. Bul. 34/15.9.78. 28.12.76. as 435300 (2pp29)

GENO ★ D13 50682B/27 ★SW 770

Fine grinding of roast coffee beans - using a process to preserv aromatic material of the beans

GENERAL FOODS CORP 21.07.77-SW-008438

(12.02.79) A23f-01/02

CANA ★ D13 50797B/27 ★US 415

Thio-glucoside and phenolics removal from oil seed materials - defatted rapeseed flour, by extn. with aq. alcohol soln.

CANADIAN PAT & DEV LTD 27.02.78-US-881490

C03 (19.06.79) A23j-01/14

Dehulled defatted oilseed material contg. thioglucoside and phenolic cpds. in which the protein material has n been subjected to denaturing conditions, is contacted w an aq. soln. of lower alkanol at < 60°C under conditio to prevent oxidation of phenols and enzymatic degradat of the glucosinolates. The solid residue is sepd. from extract and dried at < 60°C.

The glucosinolates, tannins, and yellow pigment are removed leaving a blend, light coloured product with a NSI of 35% and a PER at least as high as casein. 27.2.78 as 881490 (10pp955)

RALS ★ D13 50824B/27 ★US 4158

preserving high moisture proteinaceous pet food - by impregna with succinic, fumaric, or pyruvic acid

RALSTON PURINA CO 25.07.77-US-818791 (09.07.73-US-377

C03 (19.06.79) A23b-04/12

Pet food having a long shelf life and resistance to bacte and mould spoilage or storage is prepd. by mixing mea components which are ground in a frozen condition and subjected to a heat treatment to be melted, and partiall cooked, with a preservative which is succinic, fumaric or pyrumic acid or their mixts. A heat thickening agen is then added and the mixt. heated for a time sufficient cooperate with the preservative treatment to reduce bac erial contamination, it forms a moldable mixt. which is formed into particles.

The process is useful for preserving high moisture food from farinaceous and proteinoceous components, i stable nutritous and wholesome form without refrigerati or canning. It can be packaged in transparent flexible c tainers and stored for long periods of time. 25.7.77 as 818791 (6pp957)

NEST D13 57506Y/33 =US 4158-

Aromatic spice extract used for food flavouring - obtd. by combini grinding vapours and double solvent extraction

SOC ASSIS PROD NEST 09.03.76-CH-002896

*(19.06.79) *BE-851-107 +A23l-12/21*

An aromatic spice extract is produced by grinding a spic at low temp., increasing the temp. of ground spice to li erate an aromatic fraction contg. grinding gases, entrai ing these gases by a stream of inert gas and collecting t fraction by condensation.

The ground spice is then treated with an apolar organ solvent to obtain a second aromatic fraction. The groun spice is then treated with $\geqslant 1$ polar solvent to obtain a third aromatic fraction. The first, and second and thir aromatic fractions contained in their respective solvent are then combined to produce the spice extract.

Polar and apolar organic solvents may be used in aze ropic mixts. 4.3.77 as 774640 (5pp931)

See Also

D15 DL 134911 D16 J5 4064683 D16 J5 4064687
D16 SU 623867 D23 J5 4066657 D23 J5 4066663

D14: FOODSTUFF MACHINERY

)- ★ D14 49141B/27 ★DL -135-154

ning and peeling root crops - in vibrating bowl mixed with ding particles and water

KAD LANDWIRTSCHAFT 13.09.77-DL-200998

(18.04.79) A23n-07

crops are cleaned, trimmed and peeled in a vibrating in which they are mixed with water and granular ele-ts in the shape of cubes or tetrahedrons. The vibratory ion scrapes and trims the surface and the water carri-ne abraded pieces away.

'or use with root crops of irregular shape, The waste dible material is reduced to a minimum. 13.9.77 as 998 (7pp39)

H- ★ D14 49229B/27 ★DT 2756-957

pped cream attachment - with evenly spaced annular discs on ng loaded core in tube

/AIHINGER F GMBH 21.12.77-DT-756957

(28.06.79) B01f-05/02

arrow-gap homogeniser for whipped cream producing chines consists of a tube in which a spring-loaded core arranged. The core carries equally spaced annular cs with a slightly smaller outer diameter than the tube re. The raw cream enters through a ball valve at one d and leaves through a disc valve at the other end as ipped cream.

This attachment is more successful than conventional signs, particularly for small portions of 10-20 g. Its tion remains uniform throughout its length. 21.12.77 as 6957 (11pp39)

IP ★ D14 50037B/27 ★J5 4066-381

pts. for easily-wettable granules prodn. from powder - in which wder and steam are uniformly mixed after passing down ncentric vertical tubes

MEIJI MILK PRODS KK 04.11.77-JA-132939

J04 (28.05.79) A23l-01 B01j-02/16

Appts. comprises an outer tube having an open top through which a powder material is introduced into the tube; an inner tube disposed within the outer tube to define an annular hollow space; a nozzle for introducing a gas(air) to impart a swirling motion to the powder falling through the annular space; a nozzle tube for introducing steam into the inner tube; a guide tube connected to the bottom of the outer tube for receiving the swirling powder from the annular space as well as the steam from the inner tube; and an annular steam jacket surrounding the guide tube for directing steam through an annular slit into the guide tube.

Uniform distribution of steam into the powder is assured. Granular particles having improved settability are obtd. 4.11.77 as 132939 (4pp47)

PETR= ★ D14 50478B/27 ★SU -623-541

Frozen food blocks glazing equipment - has rotor with spiral guides to immerse blocks in glazing liquid and fan to blow air over them

PETROPAVLOVSK KAMCH 02.03.77-SU-459418

(01.08.78) A23b-04/06

Device for ice-glazing products in blocks, during cooling and freezing, has body contg. liquid into which a rotor having grippers for the food blocks is immersed, and spiral guides, and loading and unloading attachments. The equipment is made more compact, by forming the loading attachment as a trough placed inside the rotor, with the spiral guides fastened at one end to the trough. This trough is made from two guiding angle-irons, one of which has part bent downwards. The grippers are also located inside the rotor and the loading holes are located in the end walls. A fan is positioned in the top part of the body and the rotor is turned by a sprocket chain linked to the drive motor.

Smirnov, Yu.I. Bul. 34/15.9.78. 2.3.77. as 459418 (5pp 29)

D15: WATER TREATMENT

JHN/ ★ D15 49080B/27 ★DL -134-911

wage sludge processing to fodder - by mixing with flocculants ter thickening and dewatering in screw type centrifuge

KUHN W 15.03.78-DL-204199

C03 (D13) (04.04.79) A23k-01 C02c-03

ctivated sludge, esp. from biological treatment plant for q. manure in animal farms, or for waste in the food pro-essing industry, is dewatered in a screw-type centrifuge. he sludge can be dewatered, without or with an admixture 50-350 g/m^3 of an activating agent (flocculant), to a olids content of 8-15% and used as wet animal fodder.

This saves the expensive disposal facilities for sludge nd turns it into a protein fodder. 15.3.78 as 204199 (7pp)

CHU/ ★ D15 49090B/27 ★DL -134-952

urifying latex-contg. waste water - by adding cellular, porous and brous flocculant, swelling and admixing with metal salt

SCHUBERT K W 16.03.78-DL-204217

A35 (A12) (04.04.79) C02b-01/20 C02c-05/02

Vaste water, esp. synthetic rubber latex-contg. waste water s purified by (a) first adding a flocculant (I) having a cell-lar, porous and fibrous structure, e.g. saw-dust, asbestos ibres or xanthate, and swelling (I) in waste water, and then b) admixing a standard metal salt flocculant.

Sedimentation of solids is quick and complete. Waste vater purity satisfies environmental anti-pollution regul-

utilised in flocculant prepn. 16.3.78 as 204217 (8pp200)

KUHN/ ★ D15 49154B/27 ★DL -135-186

Joint sludge and liquid animal manure dewatering - by centrifuging specified mixture in screw centrifuge

KUHN W 09.12.77-DL-202512

(18.04.79) C02c-03

Activated sewage sludge from animal farms is dewatered jointly with the liquid manure with which it is mixed in a ratio of 1:1 to 3:1. A screw-type centrifuge dewaters this mixture with or without added conditioning agents to a final solids content of 15-45%.

This converts the mixture into a product which can be used economically in agriculture (protein fodder) and saves the high investment costs, energy and large areas required for irrigation (which are often not available at all). 9.12.77 as 202512 (7pp39)

DESS/ D15 77458S/49 =DS 2156-176

Automatic water softener - with regeneration tank - above ion exchange resin reservoirs

DESSART L 16.11.70-FR-041894

*(28.06.79) *FR2069-826 C02b-01/40*

A water softening appts. is described comprising ≥1 vessel for the softening resin and one vessel for regenerating salt soln. A multi-port valve is used for controlling the salt soln. To minimise the dependence of the circulation on mains pressure, the salt soln.vessel is mounted above the resin vessel and the suction pump is connected via pipes to the salt vessel by means of a valve seat and ball of a material whose specific gravity is less than that of water. The arrangement enables the regeneration to proceed even with a weak water flow and the valve prevents air from being drawn in through the vacuum jet opening. 12.11.71 as 156176 (10pp1370)

QUIM- D15 13867V/08 =DS 2337-406

Fluid sterilization of sludge and sewage - by exposing paddle mixer surface or thin stream of fluid to accelerated electron beam

QUIMCO GMBH 31.07.72-CH-011378 (31.07.72-CH-011377)
*P34 (28.06.79) *DT2337-406 A611-01 +A611-03 C02c-03*

Liquid effluent is rendered germ free by exposure to ionising radiation, pref. accelerated electrons with a particle energy of 0.3-0.5 MeV with a total dose of 400 kRad for sediment and 200 kRad for unsedimented effluent. The appts. comprises a conventional electron gun, an open vessel of such dimensions that the surface area corresponds to the coverage area of the ionising beam, agitators and feed and discharge lines for the effluent.

The electron radiation treatment is effective in killing the germs with minimal energy use in comparison to heat treatment and no special requirements for protective appts. as is the case with gamma radiation. It is particularly of value for effluent to be used for agricultural purposes. 23.7.73 as 337406 (6pp1370)

ISHI- D15 74343W/45 =DS 2420-744

Biological sewage clarification - by flocculation of meshes of plastic networks regenerated by reverse flushing

ISHIGAKI KIKO KK 29.04.74-DT-420744
*(28.06.79) *DT2420-744 C02c-01/04*

A water purification basin comprises a series of immersed grids in layers above each other with flow channels for feeding and circulating the sewage through the bed formed by the grids. The circulation is forced by means of ≥1 propeller agitator.

The construction of the filter bed and basin is such that the flow of sewage through the bed is very evenly distributed and it is not possible for dead zones to occur. The spaces between grids allow a large surface for microbiological activity in a relatively small vol. 29.4.74 as 420744 (15pp1370)

KRPP D15 40327X/22 =DS 2454-423

Thermal degasification of turbine main condensate and feed water - filtration forms unit with rigid water injection system

KRUPP F GMBH 16.11.74-DT-454423
*(28.06.79) *DT2454-423 C02b-01/10*

Condensate from a steam turbine is degasified as it enters the boiler feed water vessel by being sprayed against a protective shield mounted beneath the roof of the feed water vessel. The upper space within the shield is equipped with gas bleed lines passing through the roof of the vessel. The condensate is fed in via the annulus of a vertical cylindrical vessel flanged to the top of the feedwater vessel.

The water passes through a filter into a central duct and falls into a pot with wall perforations such that, under all feed conditions, the trajectory of the water spray reaches the limiting shield. The equipment is effective under a wide range of load situations. 16.11.74 as 454423 (4pp1370)

PASE D15 59690X/32 =DS 2512-107

Slow decarbonating process for water - with addn. of finely divided crystalline substance before flocculation

PASSAVANTW MICHELBACHER 19.03.75-DT-512107
*(28.06.79) *BE-839-395 C02b-01/22*

In the slow decarbonisation of water, the water to be treated is mixed with ≥1 alkaline-reacting cpd.as precipitants and with fine particles of $CaCO_3$ as seeding agent. During or after passage through a reaction stage part of the pptd. $CaCO_3$ is sepd. off and recycled as seeding agent. The mixt is then treated with a trivalent metal salt as flocculating agent.

The recycled $CaCO_3$ is not contaminated with flocculant and stays active longer. 19.3.75 as 512107 (4pp68)

LINS/ ★ D15 49237B/27 ★DT 27

Wet sludge dewatering device - with tubular filter discharging water at one end and filter cake at other

LINSER J 21.12.77-DT-756999
(28.06.79) B01d-29/32 C02c-03

Wet sludge, e.g. produced in a municipal sewage tre plant, is dewatered in several parallel filter chambe each with a tubular filter element of the disc type an surrounding pressure tube. Wet sludge is continuous fed at one end of the filter chamber and the filtrate is tinuously discharged from inside the elements. The cake is moved towards the other end and is discharge continuously or semi-continuously.

The new system requires a minimum of controls a saves attendant personnel. The throughput can be inc -ed by higher pressures than usual and the whole appt robust and is subject to little wear. 21.12.77 as 7569 (8pp39)

UTUM- ★ D15 49247B/27 ★DT 275

Continuous effluent filtration - by passing effluent altern cross/wise to flow of descending filter material

UT-GES UMWELT-TECH 22.12.77-DT-757209
J01 (28.06.79) B01d-29/08 C02c-01/22

Effluents are filtered continuously by passing them th a vertical cylinder in which a bed of granular filter m ial descends. Starting from the bottom the effluents a passed across the bed at right angles to its direction flow, first from the outside inwards and at a higher le from the inside outwards.

This prevents channelling which is often troubleson conventional counterflow systems. The filtering effic and throughput is much improved with very simple app 22.12.77 as 757209 (15pp39)

GASP/ ★ D15 49260B/27 ★DT 275

Activated sludge sewage treatment - by tubular aerators u shroud in annular basin

GASPAREC D 23.12.77-DT-757573
(28.06.79) C02c-01/08

Sewage is serated and moved in an annular basin, sur -ding a circular reclarification basin and a central slu pit. A rotary impeller or a pump move the fluid arou and tubular aerators are arranged near the bottom of annular basin, covered by a raisable shroud.

This extends the retention time for the airbubbles i the sewage, resulting in better oxygen absorption and better efficiency of the aeration system. 23.12.77 as 757573 (8pp39)

LINM ★ D15 49277B/27 ★DT 2757

Activated sludge treatment of waste water - with mecha destruction of microorganisms forming bulking sludge

LINDE AG 23.12.77-DT-757742
(28.06.79) C02c-01/06

In the biological purificn. of waste water, microorgani producing undesirable bulking sludge (low-solids activa sludge with poor settling properties) are destroyed me anically, pref. by subjecting the bulking sludge to high elerative forces (esp. in a centrifuge).

The process is simple, reliable, and avoids the use bactericidal chemicals (e.g. Cl_2 or H_2O_2). 23.12.77 as 757742 (11pp367)

KEME= ★ D15 49355B/27 ★DT 2845

Treating waste water from phenol-formaldehyde resin mfr. heating with formaldehyde, alkali and phenol formaldeh condensate

KEMEROVSK CHEM IND 26.12.77-SU-560372
A21 (A97) (28.06.79) C02c-05/02

The process is carried out by adding HCHO to the wast water and heating in the presence of an alkali. The im -ement comprises also adding a phenol-formaldehyde densate (I) in an amt. of 15-25 pts. wt. per 100 pts. wt. waste water.

Addn. of (I) converts the treated water into a resin with a low content of free PhOH (0.01-0.02 wt.%) and HCHO (0.03-0.07 wt.%). The resin soln. can be used the mfr. of fibreboard, chipboard, etc. 20.10.78 as 845727 (11pp367)

YE/ ★ D15 49454B/27 ★FR 2404-420

ating water for use in dishwasher - by passing through filter and n a water softener to remove calcium salts

MAYER A 03.10.77-FR-030182

P28 (01.06.79) A47l-15/44 C02b-01

ter treatment for dish-washing machines is effected by ssage through a pre-filter, for removing suspended mat-, then through a water-softener to remove calcium lts; it then passes through activated carbon before the al demineralisation process by reverse osmosis with llow fibre membranes.

Used for special purposes, such as cleaning crystal ass or surgical instruments, the pH of the water should adjusted to 7.2. The water leaving the water-softener ould have a total hardness of 3-4 French degrees (30- ppm.).

The simple and efficient treatment of the washing machine water solves many problems encountered in restaurants, hotels and canteens and avoids the formation of deposits on porcelain and glasses. 3.10.77 as 030182 pp519).

AF- ★ D15 49459B/27 ★FR 2404-455

hemical reaction vessel for purificn. of waste water - esp. using me and carbon di:oxide to form calcium carbonate crystals

SOAF 28.09.77-FR-029147

J01 (01.06.79) B01d-21/ C02c-01/18 C02c-05*

n installation for the purificn. of waste water. The installation is of the type comprising a reaction vessel in which e waste water is injected with a chemical compsn. and a as which react together to form crystals. The crystals ollect the impurities from the liq. and the purified water s sepd. from the sludge.

The reaction vessel now has a headspace above the liq. urface and an inlet for gas into the headspace which is ept filled with gas at slightly above atmos. pressure. The eadspace contains a turbine to agitate the liq. surface.

The headspace is topped by a perforated screen below he top cover of the vessel. The top cover has an outlet to tmos. through which gas seeps out from the headspace. The gas is pref. carbon dioxide and the chemical cpd. ime, the reaction producing crystals of calcium carbonate. Liq. suspension delivered by the reaction vessel is ref. passed to a decanting separator which pptes. the sludge to clarify the liq. prod.

The agitator raises plant efficiency so that more compact installations can handle a given capacity. 28.9.77 as 029147 (8pp448).

ELEC ★ D15 49471B/27 ★FR 2404-605

Water purificn. by electro-oxidn., electro-redn. and filtration - used esp. for sea water and shell fish decontamination

ELECTRICITE DE FRANCE 28.09.77-FR-029148

*+P14 (D12) (01.06.79) A01k-64/02 C02b-01/82 C02c-00/**

Water is purified by submitting it to on electro-oxidation, which produces purifying products, then to an electro-reduction of these products, followed by filtration. A rest phase is pref. introduced between the electro-oxidation and the electro-reduction to allow the purifying products to take effect. The electro-oxidn. cell is fitted with insol. and unoxidisable electrodes, partic. of Pt or graphite, the water being fed in a continuous process. The electro-reduction cell contains soluble electrodes, partic. of Fe or Al.

Used partic. for the treatment of sea water contaminated with pathogenic germs from faeces, and also be used to decontaminate shellfish without adversely effecting them biologically or affecting their taste, the germ-destroying products produced during electro-oxidation being removed during electro-reduction before the water is passed back to the shellfish. 28.9.77 as 029148 (11pp1331).

DECT D15 48054X/26 =GB 1547-961

Hydrocarbon prods mfr - by carbonisation of coal, scrap rubber or plastic or domestic sewage under reduced pressure

DECO IND INC (DECO-) 10.02.75-US-548498

*A35 H09 +Q77 (04.07.79) *BE-838-046 +C10b-53/04 F27b-05/04*

Prodn. of hydrocarbons from carbonaceous material contg. and hydrocarbons comprises moving the material

temp. of the material adjacent the reaction zone inlet from ambient to operating temp. in the absence of O_2 to cause the sudden expulsion of vapourised hydrocarbons from the material. The vapourised hydrocarbons are removed from the reaction zone before they can condense or repolymerise on the material.

The operating temp. of the reaction zone is pref. ≥1000 (esp. 1000-1800)°F. The carbonaceous material is esp. (bituminous) coal. Oils, gaseous fuels and high-carbon char can be obtd. by this method. 4.1.76 as 028244. (8pp927)

DECT D15 48054X/26 =GB 1547-962

Hydrocarbon prods mfr - by carbonisation of coal, scrap rubber or plastic or domestic sewage under reduced pressure

DECO IND INC 14.03.75-US-558599

*A35 H09 +Q77 (04.07.79) *BE-838-046 C10g-01/02 +F27b-05/04*

Prodn. of hydrocarbons from organic feed material such as waste rubber tyres comprises moving the material through a heated reaction zone and quickly increasing the temp. of the material adjacent the reaction zone inlet from ambient to operating temp. in the absence of O_2 to cause the sudden expulsion of gases and vapours from the material. The gases and vapours are removed from the reaction zone before they can condense or repolymerise on the material.

The operating temp. of the reaction zone is pref. ≥800 (esp. 800-1500)°F. Specifically, the feed material comprises chunks of shredded tyres, plastics waste or crushed residential waste. 4.1.76 as 028248. Add. to 1547961. (10pp927)

PASE ★ D15 49513B/27 ★GB 2010-690

Appts. for dewatering sludges - with two endless filter belts squeezing sludge and trained around grooved rollers

PASSAVANTW MICHELBACHER 23.12.77-DT-U39250

P71 (04.07.79) B30b-09/24

Sludges are dewatered in a pressure filter appts. which includes two endless filter belts trained around guide rollers and which define for a portion of their length a filtering space between them.

The appts. provides a horizontal, pressureless feeding zone through which one of the belts runs. This is followed by a predewatering zone where the other filter belt overlies the first belt and applies a slowly increasing pressure. The belts together then run over a large head roller and through a main dewatering zone containing small upper and lower pressure rollers.

The appts. includes ≥1 additional large roller wrapped by the belts from below disposed between the large head roller and the small pressure rollers. Between the two large rollers is a smaller intermediate roller wrapped by the belts from above. The extd. water cannot be readsorbed by the sludge layer. 15.11.78 as 044594. (4pp295)

ROSS- ★ D15 B/27 ★IT 1030-700

Self-cleaning, continuous filter for water purification

ROSSETTI TRATTAMENT 09.10.74-IT-028219

(10.04.79) C02c

KAEU- ★ D15 B/27 ★IT 1030-847

Aq. effluents biological purification appts.

KAEUBLE C ITALIANA 29.11.74-IT-030000

(10.04.79) C02c

LIOY ★ D15 49625B/27 ★J5 4063-550

Removal of surfactants from effluent - by adding water-soluble cpd. which forms water insoluble cpd. on reaction with surfactants, then foaming and sepg. the foam

LION FAT & OIL KK 00.00.78-JA-112269

(22.05.79) C02c-05/02

In removing surfactants from effluent by a foaming sepn. process, the improvement comprises adding a water-soluble cpd. capable of forming a water-insoluble or difficultly soluble cpd. on reacting with the surfactants, in amt. of 0.5-10 mols per mol of the surfactants, so that the surfactants are easily and completely removed from the effluent within a short period by foaming and centrifuging.

When other substances reacting with the cpd. to be added are contained in the effluent, it is pref. to add the cpd.

substances. In an example, 0.1 g of $MgCl_2$ was added to 500 cc of effluent contg. 345 ppm Na dodecylbenzene sulphonate, after which air was blown in for about 15 mins. at a rate of 2 l/mm to carry out foam-liq. sepn. The concn. of Na dodecylbenzene sulphonate in the residual liquor was 5 ppm, and the concn. in the foam was 20,000 ppm. 25.6.71 as 112269/78 (3pp34)

HIEJ ★ D15 49626B/27 ★J5 4063-552

Emulsified waste water treatment - to remove oils, fats, surfactants etc. by magnetic sepn.

HITACHI PLANT ENG CONST 31.10.77-JA-130486
(22.05.79) C02c-05

Harmful matter, esp. oils and fats or surfactants, etc. are removed from emulsified waste water by adding a magnetic fluid prepd. by dispersing fine granules of magnetic matter, e.g. ferrite, etc. in a base liquor, e.g. hydrocarbons, ester oil and halogenated hydrocarbons, etc. by the use of dispersant, wherein the magnetic granules are not sepd. from the base liquor even under strong magnetic field, so that the harmful matters are transferred from the aq. phase to the magnetic fluid phase, and subsequently sepg. the harmful matter-contg. magnetic fluid from the waste water by magnetic means.

In an example, 25 ml of a kerosene base magnetic fluid (sp. gr. = 1.33; viscosity: 19 cps.; satd. magnetisation: 419 gauss) is added to 50 litres of washing waste water contg. about 1,000 ppm of mineral oil and nonionic surfactant, followed by thoroughly blending together, after which the mixt. is passed through a high gradient magnetic separator, so that the mineral oil and the nonionic surfactant are removed almost completely)95.9%) from the waste water. 31.10.77 as 130486 (2pp34)

SEKI ★ D15 49682B/27 ★J5 4064-071

Waste liq. treating appts. for recycling water - includes a suspended separator in a waste liq. tank, filters, a separator body, a gathering arm and a clearing tank

SEKISUI CHEMI IND KK 31.10.77-JA-131090
(23.05.79) C02c-05

A suspended separator is disposed in a waste liq. treating tank to stir and float a mixt. of waste liq. and pressure gas soln. so as to generate fine gas foams. Filters surround the suspended separator. The waste liq. contg. aggregating agents and the pressure gas soln. from a tank are mixed and introduced into the separator body. A suspension matter in the waste liq. is floated upwardly and gathered up by a gathering arm to be discharged through a pipe to a tank.

The waste liq. removed from the suspension matter is filtered and the treated liq. is taken out through a pipe to the clearing tank for reuse in a flush toilet or for sprinkling water in a garden.

The suspension can be completely removed from the waste liq. so that the treated liq. may be reused. 31.10.77 as 131090 (4pp35)

GASC ★ D15 B/27 ★J5 4064-072

Treatment of effluent solution

BRITISH GAS CORP 13.10.77-GB-042647
J01 (23.05.79)

13.10.78 as 126051.

MITR ★ D15 49691B/27 ★J5 4064-083

High performance semipermeable membrane with high mechanical strength - comprising polyacrylonitrile applied to nonwoven fabric in two stages

MITSUBISHI RAYON KK 31.10.77-JA-130605
A88 J01 (23.05.79) B01d-13

A high performance semipermeable membrane having a high mechanical strength is mfd. by impregnating or coating a non-woven fabric or sheet-like fibrous assemble of polyester, nylon, polypropylene, etc. with a polyacrylonitrile soln. contg. > 80 mole % acrylonitrile gps. Then the fibrous assemble is dipped in a non-solvent system for gellation followed by heat treatment and drying, so that a dense layer $\leqslant$ 2 µ thick is formed over the surface of the membrane.

The fabric is further coated with a polyacrylonitrile soln. of a higher concn. than that of the same soln. used in the previous coating operation, followed by the same operations involving gellation in non-solvent system, a heat treating in a hot water, and drying. A micro-void layer having voids whose size becomes greater towards the inside of the layer is formed over which a macro-v layer is covered having a void size of > 5 µ.

The acrylonitrile semipermeable membrane, is free of cracks and pinholes and excellent in mechanical stre th and water permeability. It can be used in water trea ment, etc. 31.10.77 as 130605 (7pp117)

KANF ★ D15 49692B/27 ★J5 4064-

Volatile material sepn. from aq. soln. using porous membran e.g. ammonia sepn. from ammonium chloride soln. into sulphate soln.

KANEGAFUCHI CHEM KK 31.10.77-JA-131026
J01 (23.05.79) B01d-13

Waste water, such as ammonium chloride soln., is set one side of a porous membrane, such as a Teflon membrane having a pore dia. of 0.5 µ and a thickness of 100 and an absorbing liq. such as aq. sulphate soln., is set the other side of the porous membrane. Volatile materi such as ammonia, permeates through the porous membrane into the absorbing liq. to separate out ammonium sulphate. The absorbing liq. is then set at a higher tem than the waste water to balance the water pressure.

The volatile material may be sepd. and recovered fr its aq. soln. on an industrial scale. 31.10.67 as 13102 (3pp35)

MITR ★ D15 49693B/27 ★J5 4064-0

Tubular module used for ultrafiltration or reverse osmosis - in whi permeable end couplings are formed on tubular support, tubul net engaged with support and membrane fitted in tube

MITSUBISHI RAYON KK 01.11.77-JA-131098
J01 (23.05.79) B01d-13 B01d-31

End couplings are attached to both ends of a pressure re ting tubular support having a permeable water outlet. A net tubular matter having many air gaps is engaged with the inner surface of the tubular support. A tubular membrane of selective permeability is mounted to the inner surface of the tubular matter. This tubular module is assembled by means of clamping members.

The tubular fluid separator is of a simple constructio and may be easily assembled and inexpensively mfd. to provide high pressure resisting strength, high air and wa er permeability. This tubular module may be used for t ultrafiltration or reverse osmosis. 1.11.77 as 131098 (5pp35)

TOSI ★ D15 49694B/27 ★J5 4064-08

Reverse osmosis equipment - for treating polluted water or f dialysis

TOSHIBA MACH KK 31.10.77-JA-130554
J01 (23.05.79) B01d-13

The equipment comprises a liq. tank divided into plural soln. chambers by pressurising chambers each having a pump chamber, agitators disposed in the pressurising chambers and the soln. chambers, semipermeable membranes respectively set between the pressurising chamber and the following soln. chamber, and valves respectively introduced from the preceding soln. chamber into the pressurising chamber.

The life of the semipermeable membrane may be increased considerably and the solvent may be separated at high purity because of a series of stepped back-permeatio 31.10.77 as 130554 (4pp35)

KOGY ★ D15 49831B/27 ★J5 4064-85

Boiler descaling waste liquor treatment - involving oxidn. filtration ion exchange and adsorption processes

IND RES INST OF JAPAN 01.11.77-JA-131008
E16 (E36) (24.05.79) C02c-05/02

The chemically wash liquor discharged from boilers, e.g in a power plant after use in removing deposits or scale from the boiler walls to prevent redn. in their thermal efficiency, is purified to recover the chemicals. The liqu or comprises e.g. 5.0 wt.% di-ammonium citrate, 0.036 wt.% polyamine-isopropanol mixt., 0.05 wt.% thiourea, 0.01 wt.% hydrazine hydrate, 0.3 wt.% Fe^{2+}, 0.02 wt.% Cu^{2+} and 94.23 wt.% water, TOC = 20,000 ppm.

rt Fe^{2+} to Fe^{3+} and hydrazine, hydrate to nitrogen
ater; adding $Ca(OH)_2$ to convert diammonium citrate
cium citrate and Fe^{3+} to $Fe(OH)_3$; filtering; subject-
e filtrate to fractionation treatment to separate amm-
ınd alcohol; removing by ion-exchange certain anions
r cations, e.g. citric acid residues and ammonium
c. from the residual liquor; further removing by ad-
ion polyamine and iso-propanol, etc.; adding a strong
sing agent, e.g. Cl_2, H_2O_2, etc. to decompose a re-
ing portion of components, e.g. $CS(NH_2)_2$ etc.; adding
i, e.g. $Ca(OH)_2$ etc. to form salts, e.g. $CaSO_4$,
$)_3$ and $CaCl_2$ etc.; and opt. removing the ppte. to give
ied water having TOC of < 10 ppm. 1.11.77 as
08 (4pp34)

★ D15 49869B/27 ★J5 4065-168
e for adding defoaming agent to waste liq. treating bath - in
agent is automatically added in response to signal generators
foam level reaches certain height
JRITA WATER IND KK 04.11.77-JA-132312
(25.05.79) B01d-19/02 C02c-05
ce comprises a float carrying a level switch which
uces an output signal when the foaming liq. level
hes a predetermined upper limit, and a feed device
eeding foaming agent into the bath in response to a
al from the level switch.
Pref. the level switch incorporates a pair of spaced e -
odes extending toward the top of the foamed liq. so t
n the electrodes are dipped into the rising foam layer
form an electrical connection, permitting electric
rent to flow through the electrodes so that the level
ch is closed to produce a signal. 4.11.77 as 132312
47)

★ D15 49870B/27 ★J5 4065-169
. of iron hydroxide from soln. etc. by alkali treatment -
eded by addn. of sulphite, hydrogen sulphite or sulphur
xide to increase settling rate
ABCOCK-HITACHI KK 02.11.77-JA-130846
31 J01 (D16) (25.05.79) B01d-53/14 C02c-05/02
recipitating Fe component as iron hydroxide from aq.
n. or slurry contg. Fe ion and/or Fe complex ion, e.g.
salt of EDTA etc. by treating it with alkali matter, e.g.
$(OH)_2$ etc., the improvement comprises adding thereto
ulphite and/or a hydrogen sulphite, or contacting it with
O_2-contg. gas, prior to the alkali treatment, so that the
tling rate of the Fe hydroxide is increased.
It is possible to reduce the size of sedimentation vessel
therefore the process becomes very economical. The
cess is suitably applied for recovery of iron component
iron hydroxide from a high viscous absorbing liquor
ıtg. Fe-EDTA (used as the catalyst) and Na_2SO_4 in the
t-type desulphurisation and nitrogen-removing process.
11.77 as 130846 (3pp34)

J ★ D15 49878B/27 ★J5 4065-179
pg. surfactant and emulsified oil from waste water - by adding a
gnetic fluid and sepg. magnetically
HITACHI PLANT ENG CONST 01.11.77-JA-131800
H07 J01 (25.05.79) B01d-17/04 C02c-05
sepg. a non-ionic surfactant and oil component from
aste water, where the oil component is stably dispersed
the surfactant in the waste water, the improvement
mprises adding a magnetic fluid to the waste water to
tain a mixed substance consisting of the magnetic fluid
d the oil component and magnetically sepg. the mixed
ıbstance to obtain treated water contg. no oil component.
The magnetic fluid is obtd. by dispersing magnetic
articles of 50-300 Å, such as Fe_3O_4, into a medium.
.11.77 as 131800 (2pp51)

AIK ★ D15 49879B/27 ★J5 4065-180
pn. of oil from oil-in-water emulsion - by contacting emulsion
ith a carbon-fluorine bond-contg. high molecular wt. cpd.
DAIKIN INDUSTRIES KK 01.11.77-JA-132020
A97 J01 (A14) (25.05.79) B01d-17/04
sepg. oil from an oil in water type emulsion, the im-
rovement comprises contacting the emulsion with a C-F
ond contg. highly molecular cpd. of < 25 dyne/cm of in-
cial tension. The highly molecular cpd. has per-

reaction with ≥ 1 of polycarbon monofluoride.

In an example, 40 pts. wt. of $CF_3(CF_2CF_2)_4CH_2CH_2O$-$C(O)$-$CH=CH_2$, 20 pts. wt. of $CH_2 = CCl_2$, 40 pts. wt. of $CH_2=CH$-$C(O)O$-CH_5 were polymerised to obtain a polymer of 50,000 molecular wt. and perfluoroalkyl gp. Glass fibre was immersed in a methyl chloroform soln. of 10% of the polymer and dried at 150 °C for 2 mins. to obtain an agent for treatment of an oil in water type emulsion. The agent was packed at the bottom of a glass tube. A n-decane emulsion of 500 mg/l of oil concn. was passed through the packed agent to collect n-decane at the top of the tube and transparent water at the bottom thereof. 1.11.77 as 132020 (4pp51)

HITG ★ D15 49887B/27 ★J5 4065-198
Treating industrial waste soln. contg. iron ion - by adding basic cpd. in the presence of EDTA to ppte. hydrous ferric oxide
BABCOCK-HITACHI KK 02.11.77-JA-130845
E31 (E16) (25.05.79) C01g-49/02 C02c-05/02

In adding a basic cpd. e.g. $Ca(OH)_2$, to the soln. contg. Fe ion or Fe cpd. ion to precipitate the ion as a solid iron cpd. and to remove it from the soln., the improvement comprises carrying out the pptn. of the ion in the presence of excess of EDTA or EDTA cpd.

When excess of EDTA is added to the soln. contg. Fe ion, precipitation rate of FeOOH is increased and Fe is recovered from the soln. in a short period. 2.11.77 as 130845 (3pp51)

KIMU/ ★ D15 49998B/27 ★J5 4066-263
Chelated granular trace element fertiliser prodn. - from sulphite pulp mill waste water, using neutralisation process
KIMURA T 08.11.77-JA-133040
C04 F09 (28.05.79) C05f-07/02

A sulphite pulp mill waste liquor is first neutralised with the oxide of a trace-element metal, the neutralised waste liquor is then concentrated until approx. 50% water content is reached by using a multiple-effect vacuum evaporator, the concentrated waste liquor is then pulverised by using e.g. a spray drier and the pulverised waste liquor is subjected to e.g. a pan-type granulator to obtain a chelated granular trace-element fertiliser.

The strongly acid digesting waste liquor in the mfr. of sulphite pulp is neutralised with the oxides of trace-element metals with the intention of using lignosulphonic acid (a chelating agent) present in the pulp mill waste liquor in contrast to the conventional method in which the neutralisation is made with lime. 8.11.77 as 133040 (1pp117)

SHOW- ★ D15 50000B/27 ★J5 4066-270
Composting organic sludge - e.g. excess sludge generated in activated sludge treatment, using high concn. oxygen
SHOWA YUNOX KK 08.11.77-JA-133092
C04 R26 (D16) (28.05.79) C02c-01/06 C05f-07 C12b-01 G05f-09/04

A method of composting organic sludge, e.g., excess sludge generated in activated sludge treatment and mixts. of the excess sludge, wood powder, urban refuge and other organic wastes convertible into compost in which waste water, a high concn. of oxygen-contg. gas, and return activated sludge are introduced into an aeration tank, where they are mixed by means of a mechanical stirrer and excess gas is discharged into the outside, for example, then the mixed liquor treated by aeration is sent to a clarifier to separate it into supernatant liquor and activated sludge.

The supernatant liquor is discharged and most of the activated sludge sent back to the aeration tank, while a part of the activated sludge is continuously or intermittently introduced into a dehydrator as excess sludge. The excess sludge after being dehydrated is introduced into a mixing tank and mixed with an organic solid waste of a high C/N ratio, e.g., urban refuge, chaff, etc., with a part of composted substance from a composting tank, the mixt. of excess sludge, organic solid waste and return compost in the mixing tank is then sent to the composting tank, where they are well mixed by means of a mechanical stirrer to uniform temp. distribution while introducing a part of oxygen, and lastly the crude compost made in the composting tank is subjected to a several week final fermentation to obtain

This method performs the composting of excess sludge simply and rapidly without generating offensive odours, while utilising exhaust gas form composting process using oxygen-rich gas as aeration gas for the activated sludge treatment. 8.11.77 as 13309? (4pp117)

ITG ★ D15 50035B/27 ★J5 4066-378
pts. for producing fresh water from sea water by evapn.-
ndensn - includes heat pipes extending through two isolated
npartments, into one of which brine is sprayed
BABCOCK-HITACHI KK 07.11.77-JA-132577
(28.05.79) B01d-03

Appts. comprises a sealed casing, a partition wall dividing the casing chamber into two isolated compartments, a bundle of heat pipes extending through perforations of the partition wall into the two compartments, and a brine header extending into one compartment and including a number of spaced spray nozzles for directing spray of brine onto half the length of the heat pipes.

Specifically, water vapour generated from a previous evapn. stage is introduced to the other compartment and is cooled and liquefied by heat exchange with the heat pipes. The water vapour generated in the adjacent compartment is conducted to the condensn. compartment in the next stage casing. 7.11.77 as 132577 (4pp47)

SUMO ★ D15 50038B/27 ★J5 4066-382
Reverse osmosis membrane prodn. - includes radiating a plasma in a hollow acrylonitrile (co)polymer fibre used to form the membrane
SUMITOMO CHEMICAL KK 04.11.77-JA-132721
A88 J01 (A14 A35) (28.05.79) B01d-13

Method comprises radiating a plasma in a hollow fibre which consists of polyacrylonitrile or a copolymer contg. $>$ 40 wt.% acrylonitrile, whose bubble point is $>$ 1 kg/m^2 and whose water permeable flux is $>$ 1 l/m^2/hr. under a pressure of 10 kg/cm^2.

A crosslinked dense layer having a thickness of $< 1\ \mu$ is readily made in the vicinity of the surface of the hollow fibre. A semipermeable membrane made from the hollow fibre has better chemical, mechanical and thermal properties than conventional acetyl cellulose membranes. 4.11.77 as 132721 (6pp96)

AGEN ★ D15 50042B/27 ★J5 4066-387
Oil-collecting material for use on sea - comprises carboxymethylated sheep's or lambs wool
AGENCY OF IND SCI TECH 07.11.77-JA-133277
H03 (28.05.79) B01d-21/ C02c-05/02 C09k-03/32*

The material can coagulate oil on the sea in the form of a gel contg. water, and has no toxicity and does not cause secondary pollution.

In an example, 130 g wool were dispersed in 1350 cc of ethanol. To the dispersion were added 202 cc of 25% NaOH and stirred at 40°C for 1 hr. and then a soln. contg. 0.80 mol of monochloroacetic acid in water and ethanol. This reaction soln. was heated to 40°C and after being stirred for 2 hrs., it was neutalised with 36N H_2SO_4, washed with water-contg. methanol and dried. 7.11.77 as 133277 (3pp96)

MATU D15 38642V/21 =J7 9014-429
Water-purifier for drinking water prodn.
MATSUSHITA ELEC IND KK 11.08.73-JA-090385
*(07.06.79) *DT2355-895 +C02b-03/10*

Water-purifier contains a housed adsorbent for dechlorinating supplied water and a filter device for filtering the dechlorinated water. Filter device contains $\geqslant 1$ bactericidal membrane, allowing the passage of the dechlorinated and filtered water, and consisting of a porous substrate strip of water-insol. material, esp. a non-woven fabric of synthetic fibres, and porous layers or deposits of a bactericidal material having slight or limited solubility in water, and consisting of a Gp.IB metal, its chloride, bromide or iodide, partic. AgCl, adhering to substrate surface.

Pref. housing contains grains of an alkaline cpd., esp. $CaCO_3$, which has slight or limited water-solubility, to raise pH of supplied water $\leqslant 8.6$. 11.8.73 as 090385 C02b-3/10 (7.6.79) MATSUSHITA ELEC IND CO (5pp) (J5 00038953)

MATU D15 38642V/21 =J7 901
Water-purifier for drinking water prodn - comprising dechlorin
adsorbent and filter contg bactericidal membrane supp
bactericidal Gp IB metal or halides
MATSUSHITA ELEC IND KK 11.08.73-JA-090386
*(07.06.79) *DT2355-895 C02b-03/10*

Water-purifier contains a housed adsorbent for dechlo
ting supplied water and a filter device for filtering the
chlorinated water. Filter device contains $\geqslant 1$ bacterici
membrane, allowing the passage of the dechlorinated
filtered water, and consisting of a porous substrate st
of water-insol. material, esp. a non-woven fabric of
thetic fibres, and porous layers or deposits of a bacte
dal material having slight or limited solubility in wate
and consisting of a Gp.IB metal, its chloride, bromide
iodide, partic. AgCl, adhering to substrate surface.

Pref. housing contains grains of an alkaline cpd., e
$CaCO_3$, which has slight or limited water-solubility, t
raise pH of supplied water to $\leqslant 8.6$. 11.8.73 as 09038
C02b-3/10 (7.6.79) MATSUSHITA ELEC IND CO (4pp)
(J5 0047447)

MITU ★ D15 50181B/27 ★J7 9014
Spent aluminium alkali etching soln. treatment - comp
hydrolysis and sepn. of slurry, after which etching soln. is recy
into the etching process
MITSUBISHI CHEM IND KK 02.04.74-JA-037214
M14 (08.06.79) C02c C09k C23f-01

Spent Al alkali etching soln. is treated in the presence
cryst. $Al(OH)_3$ to hydrolyse Na_2Al_2O to $Al(OH)_3$ and Na
The slurry is allowed to sep. to $Al(OH)_3$ and the etchin
soln. which is recovered and recycled to the etching pr
cess. Waste water from washing etched Al prods. is ne
tralised to ppt. $Al(OH)_3$, which is collected and recycle
to the etching waste treatment process. 2.4.74 as 0372
C23f-1/00 (8.6.79) MITSUBISHI CHEMICAL INDS. CO.
LTD (4pp38) (J5 0134938)

MITU D15 13009A/07 =J7 9014
Aluminium separation from waste water - by neutralising w
soln. to precipitate aluminium hydroxide and adding flocculant
MITSUBISHI CHEM IND KK 09.05.74-JA-051494
*A97 E33 M14 (A14) (08.06.79) *J50143-342 +C23f-01*

Al-contg. waste waters, such as alkaline Al etching wa
solns. are treated by neutralisation of the waste soln. t
ppte. $Al(OH)_3$ and addn. of organic flocculant to form flo
of $Al(OH)_3$ and hydrolysis of Na aluminate in the presen
of seed $Al(OH)_3$ crystal to crystallise Al as $Al(OH)_3$. Aft
removal of $Al(OH)_3$, the remaining soln. may be recycle
The $Al(OH)_3$ flocs are treated with mixts. contg. therm
setting acryl resins and $\geqslant 1$ multivalent metals at 80° t
insolubilise or remove the organic flocculants, and the
resulting $Al(OH)_3$ is recycled.

In an example, 260g. $Al(OH)_3$ was obtd. when 2500g.
$Al(OH)_3$ floc contg. 523 ppm. polyacrylamide obtd. fro
the above process, was treated with Haniraito 1.34 and
$MgCl_2.6H_2O$ 22.4g. in a drying appts. at 120° with stea
under reduced pressure for 2 hrs. The recovered Al(O
was adequate for recycling in Al etching process. 9.5.7
as 051494 C23f-1/00 (8.6.79) MITSUBISHI CHEM IND K
(5pp) (J5 0143342)

KURK ★ D15 50185B/27 ★J7 9014-
Moving bed type multistage liquid-solid contact appts. - compris
vertical column with solid feed at top and liquid feed at bottom
KURITA WATER IND KK 03.06.74-JA-061800
J01 (08.06.79) B01d-15/02 B01j-08/20

Device for contacting a liquid (water) with a granular so
(active carbon) for adsorbing components of the liquid
comprises a multi-stage moving beds of the solid contai
in a vertical column, liquid feed pipe opened in a lower
space of the column and solid feeder located in the uppe
most stage bed. 3.6.74 as 061800 B01j-8/20, B01d-15/0
(8.6.79) KURITA WATER IND KK (3pp26) (J5 0155046)

MURA ★ D15 50208B/27 ★J7 9014-
Prepn. of test piece for X/ray analysis - by adsorbing ions in w
onto ion-exchange resin, mixing with liq. thermosetting resin
casting in a mould
MURATA MFG CO 23.01.73-JA-010041
A97 J04 R16 (11.06.79) G01n-01/28 G01n-23/22

od comprises adsorbing ions in water onto ion-exchan
esin, mixing the resin with liq. thermosetting resin.
asting the compsn. in a mould. Used for X-ray ana-
of contaminants of river water, waste water, etc.
.73 as 010041 G01n-1/28, 23/223 (11.6.79)
ATA MFG. CO (2pp83) (J4 9098695)

D15 87715X/47 =J7 9015-026
pitation of calcium carbonate from sea water - by addn. of
nesium carbonate slurry also contg. sodium or patassium
onate
NKAI KAISUI KOGYO 31.03.75-JA-037909
*(12.06.79) *J51113-350 C02b-01/23 C02b-05/02 +C23f-14/02*
e pptn. of Ca from sea water or saline water by adding
gCO_3 slurry, a portion of the $MgCO_3$ used is replaced
$>$0.05 equiv. of sodium or potassium carbonate to
elerate formation of $CaCO_3$ and improve the calcium
oval rate. The amt. of the precipitating agent is usually
equiv. based on the Ca contained in the sea water pref
to 1.2 equiv. more pref. 1.2 equiv.
Pref. elevated temp. (55-80°C) is used to accelerate
pptn. of $CaCO_3$. The concn. of the precipitating agent is
ut 2-3%. 31.3.75 as 037909 C02b-1/23, 5/02, C23f-
02 (12.6.79) KINKAI KAISUI KOGYO (2pp) (J5 1113350)

K ★ D15 50213B/27 ★J7 9015-027
ator for oxidising e.g. waste water - comprises a tank connected
casing packed with honeycomb or porous filler
NORITAKE KK 01.04.75-JA-039589
J02 (12.06.79) B01d-03/16 B01j-10 C02c-05/04
e aerator tank is connected to a casing packed with a
eycomb or other porous filler through a liq. circulating
mp, while an air compressor is connected to a conduit
ween the pump and casing. 1.4.75 as 039589 B01j-
/00, B01d-3/16, C02c-5/04 (12.6.79) NORITAKE KK
p26) (J5 0114381)

RS D15 89067X/48 =J7 9015-029
mipermeable membranes having uniform microporous structure -
d thin cell walls obtd. from polyvinyl alcohol and polyalkylene
ycol mixts.
KURARAY KK 22.04.75-JA-048995
*A14 J01 (A88) (12.06.79) *DT2615-954 B01d-13/04 C08j-05/18*
VA membranes are characterised by numerous micro-
ores of av. dia. 0.02-2µ, sepd. by walls of thickness
om 50-5000Å, and essentially uniformly, distributed
ver the membrane cross-section. Used in dialysis, osmo
sis or ultrafiltration. A new type of structure combining
xcellent permeation selectivity with high mechanical,
trength.
In contrast to previous semipermeable membranes,
ose of the invention have large numbers of micropores
niformly distributed and sepd. by extremely thin walls.
2.4.75 as 048995 B01d-13/04, C08j-5/18 (12.6.79)
URARAY KK (4pp) (J5 1123780)

URS D15 89067X/48 =J7 9015-268
emipermeable membranes having uniform microporous structure -
nd thin cell walls obtd. from polyvinyl alcohol and polyalkylene
lycol mixts.
KURARAY KK 09.04.76-JA-040538
*A14 J01 (A88) (13.06.79) *DT2615-954 B01d-13/04 C08j-05/18*
PVA membranes are characterised by numerous micro-
ores of av. dia. 0.02-2µ, sepd. by walls of thickness
rom 50-5000Å, and essentially uniformly, distributed
ver the membrane cross-section. Used in dialysis, osmo
-sis or ultrafiltration. A new type of structure combining
excellent permeation selectivity with high mechanical
strength .
In contrast to previous semipermeable membranes,
those of the invention have large numbers of micropores
uniformly distributed and sepd. by extremely thin walls.
9.4.76 as 040538 B01d-13/04, C08j-5/18 (13.6.79)
KURARAY KK (8pp) (J5 2123385)

NITL D15 38992A/22 =J7 9015-270
Reverse osmotic sepn. and ultrafiltration appts. - providing constant sepn. rate
NITTO ELECTRIC IND KK 28.09.76-JA-116873
*J01 (13.06.79) *J53042-187 B01d-13 B01d-31*

ble membrane, microfilter or ultranfilter structure, and used for an inverse-osmotic sepn. and ultrafiltration of the liq. The object is to avoid redn. of the sepn. rate of the device.

A number of porous collecting pipes are disposed around a liq. feed or drain porous pipe to form a filter module. A porous or neat structured support tape is fixed to each collecting pipe at one end. Both sides of the tape are enclosed with the membrane to form a membrane layer. The membrane layers of the collecting pipes are laminated one above another through band spacers and wound around the arrangement of the collecting pipes. 28.9.76 as 116873 B01d-13/00, 31/00 (13.6.79) NITTO ELECTRIC IND KK (4pp) (J5 3042187)

HITA D15 04815B/03 =J7 9015-271
Tubular filtering appts. for purifying liquids e.g. sea water - has device for circulating cleaning balls e.g. of sponge for removing impurities from inner surface of membrane
HITACHI KK 11.05.77-JA-053183
*J01 +P43 (13.06.79) *J53138-988 B01d-13 +B08b-09/04*

Device for removing impurities from a liq. e.g. sea water and industrial waste water comprises a filter provided with a tubular filter membrane for filtering the liq. and means for circulating cleaning pieces such as sponge balls for cleaning the inner surface of the membrane.

The novelty is that means is provided for detecting the fluidic condition of the cleaning balls. It comprises a ring-shaped resistance wire disposed in a pipe, through which the balls pass. A current measuring unit is connected to the wire to measure the resistance change due to collision of the ball to the wire. 11.5.77 as 053183 B01d-13/00, B08b-9/04 (13.6.79) HITACHI KK (6pp26) (J5 3138988)

HITA D15 89248Y/50 =J7 9015-274
Desalting and concentrating water using electrodialysis cell - which includes desalting chambers and concentrating chambers defined by ion exchange membranes
HITACHI KK 28.04.76-JA-047624
*J01 (13.06.79) *J52131-981 B01d-13/02*

A process is claimed for desalting and concentrating waters such as underground waters contg. salts of 1800 ppm. in TDS, in an electrodialyser cell consisting of two kinds of chambers, one is a desalting chamber gp. and the other a concentrating chamber gp. Separate means for feeding liquids into both gps. are provided in the cell. The novelty is that the water under treatment is fed into one sub-gp. of the desalting chamber gp. and a liq. contg. salts. which cannot form a difficultly soluble salt with the salt contained in the water under treatment, is fed into the other sub-gp. of the desalting chamber gp.

The desalting chambers are grouped into two subgroups and they are alternately arranged in the cell. Each chamber is defined by ion exchange membranes. 28.4.76 as 047624 B01d-13/02 (13.6.79) HITACHI KK (4pp) (J5 2131981)

AGEN D15 56392Y/32 =J7 9015-279
Oil absorbing material - based on paraffin wax coated, sized wood chips from which pulp fibre is sepd.
AGENCY OF IND SCI TECH 23.12.75-JA-153613
*F09 J01 (13.06.79) *J52076-286 B01d-15 C02c-05/02 C09k-03/32*

Prepn. of oil absorbing material (I), comprises forming paraffin wax film on surface of sized wood chips, from which pulp fibre has been sepd.

(I) made from wood chips of 2-16mm length and 0.03-2 mm wide exhibit the highest oil absorbing capacity. The pref. example of sizing agent is rosin size, which is used in a ratio 1-15 wt.%, pref. 5-10 wt.% on wood chips. The sized wood chips are pref. treated with Al salt, such as Al sulphate at 3-30 wt.%, pref. 15-20 wt.% on wood chips. After treatment with Al salt, the wood chips are dried at 80-90°C and then soaked in or sprayed with a soln. of paraffin wax of m.pt. 115-155°F dissolved in toluene, methyl chloroform, perchloroethylene or trichloroethylene. The content of paraffin in wood chips should be 10-30wt.%, pref. 15-20 wt.%.

Oil absorbing material can be prepared economically and has high oil absorbing and water repelling properties.

The oil absorbing material is used to collect selectively oil on surface of water. 23.12.75 as 153613 B01d-15/00, C02c-5/02, C09k-3/32 (13.6.79) AGENCY OF IND SCI TECH (3pp) (J5 2076286)

GORS/ ★ D15 50248B/27 ★SU -622-762

Waste water clarification and purificn. - includes coagulation of colloidal particles in waste at soluble electrodes in mixed constant and alternating electrical fields

GORSHKOV V P 15.11.76-SU-419652

J03 (25.07.78) C02b-01/82 C02b-09

Passage of aq. waste contg. colloidal particles through an inter-electrode space between soluble metal electrodes results in formation of a metal hydroxide which catalyses coagulation.

The efficiency of the coagulation can be increased if the process is carried out in mixed constant and alternating fields, instead of in constant field only, which could only give efficient conversion at high prolonged treatment times.

Gorshkov, V.P. and Stupnitskii, R.V. Bul. 33/5.9.78. 15.11.76. as 419652 (4pp815)

SEME/ ★ D15 50249B/27 ★SU -622-763

Effluents biochemical purification appts. - has water-air injector and water-air separator to increase recirculation and sufficient air for oxidation

SEMENOVSKII YU V 27.09.76-SU-406722

(22.07.78) C02c-01/04

Device for biochemical purification of effluents, using the biofiltration method, ensures aeration where the inflow of the effluent is uneven. The biological filter is equipped with water-distribution pipes and perforated pipes to admit and distribute the compressed air. The filtration charge is supported on a grating and there is a secondary settling tank and pressure circulating system with a pump. Purification effectiveness is increased by adding, in sequence in the pressure circulation pipeline, a water/air ejector and a container/separator having a gas space connected to the perforated pipe for feeding in the compressed air. The liquid space is connected to the water-distribution pipeline.

Semenovskii, Yu.V. Bul. 33/5.9.78. 27.9.76. as 406722 (3pp039)

WATE= ★ D15 50250B/27 ★SU -622-764

Airport surface run/off rain water purificn. - includes settling and biological treatment to remove petroleum prods. etc. at low cost

WATER STORAGE RES (AERO=) 01.12.76-SU-424633

(25.07.78) C02c-05

Surface drainage from an airport is collected, sepd., and stored, then treated by biological cleaning.

The method can be simplified if the drainage running off on pptn. of 0-10 mm. is stored, allowed to settle, then cleaned biologically; the drainage running off on subsequent pptn. of up to 5 mm. is stored for 1-3 days prior to cleaning; and the drainage running off on further pptn. is passed directly to a reservoir.

The water obtd. by this method satisfies health standards, and the method avoids the need to transport the whole vol. of run-off to a municipal works for treatment with domestic and farm waste, as before.

Bukholdin, A.A., Rokshevskaya, A.V., Sverdlov, B.S. et al. Bul. 33/5.9.78. 1.12.76. as 424633 (2pp815)

LEMI ★ D15 50251B/27 ★SU -622-765

Organic cpds. elimination from aq. effluents - by adsorption on shungite modified with alkaline aluminium nitrate

LENINGRAD PLEKHANOV MINE (AKFG=) 26.01.77-SU-446997

E19 (25.07.78) C02c-05/02

Organic cpds. e.g. phenols and oleic acid removal from waste water can be increased if the adsorbent of shungite is modified by treating it with basic aluminium nitrate, instead of alkali alone as before, since this did not give adsorbent with a sufficiently high specific surface. Modification of shungite with particle dia. 5-10 mm. was carried out using alkaline aluminium nitrate with the formula $Al_2(OH)_5NO_3$, then the adsorbent was used to treat waste contg. organic impurities at an irrigation rate of 10-12 $m.^3/m.^2$ hr. The residual concn. of impurities was reduced to 0.12 g./l. after 15 min., 0.08 after 60 min., and 0.05 after 240 min., corresp. to a degree of purificn. of 96.6%, compared to a value of 94.8 obtd. fc adsorbent treated by alkali only.

The modified shungite gives an increase of ~ 2% in level of purificn. and is less expensive than activated carbon or zeolite.

Gorshtein, A.E., Baron, N.Yu., Bogdanova, N.P. et a Bul. 33/5.9.78. 26.1.77. as 446997 (2pp815)

FEPU ★ D15 50252B/27 ★SU -622-7

Removing oil from rolling mill waste water - by mixing with purificn. plant waste water and spraying mixt. in waste gas con adsorbent particles suspension

DONETSK FERR METAL 18.02.77-SU-453988

J01 (25.07.78) C02c-05/02

The efficiency of removing oil from waste water can be increased and the cost of the process reduced if the was is mixed with wash water from industrial gas cleaning, a vol. ratio of oil in waste to wash water of 1:1000-10,0 then the mixt. atomised in a current of waste gases contg. suspended particles of adsorbent, such as iron oxide, calcium carbonate or sulphate.

The method is an improvement on treating the water with finely divided particles of adsorbent directly, as it less complex, gives an increase in the level of purificn of 10-15 times, eliminates the need to prepare finely divided adsorbent, and produces water which can be use repeatedly. Treatment of water contg. 649 mg./l oil gave an oil level of 18 mg./l in the product by the proposed method, compared to a value of 278 by the previou method, and used 7000 ml. of wash water.

Petrovskii, O.V., Myagkii, D.D., Veselyii, A.G. et al. Bul. 33/5.9.78. 18.2.77. as 453988 (2pp815)

STAM D15 24428X/14 =SU -623-4

Use of polymeric flocculating agent - in separation of catal particles from suspension in aqueous hydroxylammonium s solution

STAMICARBON BV 19.09.74-NL-012381

*A91 E13 J01 (10.07.78) *BE-833-500 B01j-37*

Catalyst particles are sepd. from a suspension of the particles in an aq. soln. of a hydroxylammonium salt for use in the prepn. of caprolactam by (a) adding a polymeric flocculating agent to the suspension, and (b) sepg. the flocculate from the aqs. soln. Enables the catalyst particles to be sepd. relatively rapidly, e.g. by filtration. The catalytic activity and selectivity of the particl is not harmed. Scholten, J.J.F., Kochs, H.L.T. Bul. 33/5.9.78. 17.9.75. as 172442 (2pp)

GURE= ★ D15 50488B/27 ★SU -623-5

Removing iron impurities from steam condensate - by filteri through layer of polyethylene of mixed particle size

GUREVO CHEM WKS 09.04.73-SU-910641

A88 J01 (A17) (07.08.78) B01d-37

Method for cleaning liquids, e.g. removal of mechanical impurities from water, such as iron from steam condensate, in processes where water of a high degree of purit is required, involves filtration through a layer of polyethylene. Cleaning effectiveness is increased and the process is rendered cheaper by using polyethylene of 20-500 μ particle size range as the filtering material. A glass column (30 x 300mm) is filled with powdered polyethylene with different granulometric composition - from 320mm to 60 microns. The steam condensate is passed through at 2-10 litres/hour (corresponding to a linear velocity of 3-15 m/hour), at 100°C. The iron particles concentration is 280-1100 micrograms/kg. The iron content is determined by the sulphosalicylate method using a photocalorimeter with a precision of 0.14 mcgm/kg.

Nosova, N.Ya., Sokolova, A.G., Kolesnikov, Yu.N. et al. Bul. 34/15.9.78. 9.4.73. as 910641 (2pp29)

ORLO/ ★ D15 50583B/27 ★SU -623-83

Sea water desalinating appts. - operating by reverse osmosi through semipermeable film, with creation of required hydrostati pressure equilibrium

ORLOV A K 17.08.73-SU-957767

R26 (29.08.78) C02b-01/06 G05d-27

Device for desalinating sea water, using a

ethod, includes semi-permeable membrane films
pipe for discarding the brine. The desalination can
ne, when the hydrostatic pressure varies by addi-
ly installing a screw pump of constant delivery.
is located in front of the desalination apparatus,
a regulating unit including an independent drive for
lunger and a unit to correct the value of the maximum
gh cross-section mounted on the pipe which dis-
the brine. A desalinated water pressure controller
nnected by its outlet to the drive for the plunger of
ontrolling unit, and a hydrostatic pressure sensor is
ected by its output to the corrosion unit.
v, A.K., Milovidov, R.G., Tseitlin, I.M. Bul.
5.9.78. 17.8.73. as 957767 (3pp29)

= ★ D15 50584B/27 ★SU-623-832

**ener-clarifier separating solids and liquids - has sloping
ces with perforated partitions through which water flows away
solids**

RR METAL ORE ENRI 18.10.74-SU-068231

1 (02.08.78) B01d-21/10 C02c-01/26

kener, for precipitating solid particles from suspen-
s, used in particular, for enriching and clarifying
ries, has body with sloping surfaces and deflector
es positioned underneath it, so as to form channels
ithdraw the clarified liquid. The clarification pro-
is intensified by disposing perforated partitions in
channels above the deflector plates. The incoming
ry passes through the distributor and is uniformly
ead over the whole area of the thickener surface. The
d particles are directed by gravity on to the sloping
es below.
k, N.E. Bul. 34/15.9.78. 18.10.74. as 068231 (2pp

V= ★ D15 50585B/27 ★SU-623-833

**ipitated residues loosener for use in settling tank - has
orated tubes fitted with scrapers, through which loosening
nt is ejected under pressure**

LAVENERGOREMONT 04.04.77-SU-467903

(02.08.78) C02c-01/36

vice for loosening residues, during the cleaning of the
tom of a settling tank free from the deposited solids is
ilar to that claimed in Parent Certificate 508487,
ch consisted of scrapers fastened to a rotating beam.
loosening attachment comprised flexible perforated
es made up of two adjacent casing isolated from one
ther. A loosening agent was fed under pressure alter-
ely, with a predetermined frequency, into the casings.
Now operational effectiveness is increased by provid-
the flexible tubes with scrapers mounted on pivots,
tributed along the generating line of both casings.
e scrapers have supports and their surfaces are fitted
h through holes.
rteev, N.S., Tarasov, V.N., Kirbenev, G.A. Bul.
/15.9.78. 4.4.77. as 467903 Add to 508487 (2pp29)

N= ★ D15 50586B/27 ★SU-623-834

**rry thickener used in water clarification - has conical tank with
admission and collecting channel, with mixer to concentrate the
idues**

CONS IND SANITATION 09.11.72-SU-843999

(02.08.78) B01f-07/18 C02c-03

rry thickener, for use during the clarification of water
s conical tank fitted with a circular channel, bladed
xer and unloading. The density of the residues is in-
eased and the thickening time is reduced, by making the
ades of the mixer in the form of L-shaped troughs,
nnected so that they slope upwards towards the periph-
y.

The suspension comes in from the top and collects in
e conical tank. The clear water collects in the circular
annel installed at the top of the tank, while the residues
ing thickened are smoothly mixed. The released water
ncentrates in the L-shaped troughs on the mixer and is
eed to travel upwards via the layer closest to the out-
de walls of the tank and thus upwards to the collecting
annel.
emura, M.V. Bul. 34/15.9.78. 9.11.72. as 843899

AVDO/ ★ D15 50587B/27 ★SU-623-835

Selective removal of aromatic amine(s) etc. from waste water - by passing waste through steam treated polymeric membrane based on polyether and di:phenylmethane di:isocyanate

AVDONIN YU A 03.09.73-SU-959432

A97 E14 (A25) (02.08.78) C02c-05/02

High quality water from aq. waste contg. amines can be obtd. if the waste is passed through a steam-treated polymeric membrane prepd. from 4,4'-diphenylmethan-diisocyanate and a satd. simple polyester, with mol. wt. 900-5000, with addn. of isophthalic acid dihydrazide as a chain extender, in a wt. ratio of 52:120:40.

The mol. wt. of the ether is critical as polymer prepd. with a lower wt. ether has poor adsorption properties, while one prepd. with a higher wt. ether is not sufficiently permeable.

The method gives a higher degree of removal of amines than the use of formaldehyde, which required an exact pH value and gave water contaminated with formalde-hyde. Passage of water contg. 1.9 g./l. aniline through a membrane based on polyurethane gave treated water contg. 0.37 g./l. aniline, corresponding to a selectivity for aniline of 80%.
Avdonin, Yu.A., Korneva, L.V., Selezneva, L.S. et al
Bul. 34/15.9.78. 3.9.73. as 959432 (3pp815)

BIOL- ★ D15 50680B/27 ★SW 7708-243

Rectangular biological effluent treatment vessel - fitted with rotating screws in the bottom and through which oxygen flows upwards from the bottom

BIOLOGISK AVFALLSHA 15.07.77-SW-008243

(12.02.79) C05f-09/02 C08f-09/02

ANTI- ★ D15 50685B/27 ★SW 7709-496

Stepless controlled effluent water flow to a treatment unit - using a compartmented tank between a pump and the unit

ANTICIMEXBOLAGEN AB 24.08.77-SW-009496

(19.03.79) C02c-01

HORN/ ★ D15 50686B/27 ★SW 7709-508

Purificn. of water contg. heavy metal salts - comprising pptn. using a reagent contg. phosphorus

HORN F F 24.08.77-SW-009508

M25 (19.03.79) C02c-05 C22b-07

SUND/ ★ D15 50688B/27 ★SW 7709-551

Treating of effluent liquor - by stabilisation with respect to its pH value

SUNDBERG H M 25.08.77-SW-009551

(19.03.79) C05f-03/06

KALL- D15 67151Y/38 =US 4158-627

Sewage sludge dewatering installation, working intermittently - drains sludge first before passage between two gauze belts through press

KALLE-REGULATORER 27.02.76-SW-002658

*(19.06.79) *DT2705-285 C02c-03 +B01d-33/04*

Waste water treatment sludge is processed batchwise by adding flocculants and stirring, feeding into a basin with perforated bottom and onto a perforated web so that the water can drain, moving the web and deposit out of the basin, and pressing between a pair of plates to squeeze out further water.

The residue-carrying web is pref. passed around a roll and the residue surface is covered by a second moving perforated web to support the residue as the webs pass vertically between the plates. Air is pref. blown through the residue between the webs after pressing. The apparatus is claimed. 17.2.77 as 769534 (5pp1358)

FLEC/ ★ D15 50779B/27 ★US 4158-628

Water softener treatment tank - with calcium:sodium conditions sensor tube expanding and contracting to make and break circuit

FLECKENSTEIM A J 05.06.78-US-912390

(19.06.79) B01d-15/06

A water softening system has a treatment tank holding ion-exchange material and with a sensor responsive to calcium-sodium conditions by expanding and contracting and directly contacting the material. The sensor comprises a tube with the outside contacting the material and water flowing through the interior.

The tube is mounted in end pieces each with an opening to the metallic inside surfaces of the pieces. A circuit-making spring in the tube is brought into contact with the pieces by tube contraction. 5. 6. 78 as 912390 (5pp1358)

BEEH/ ★ D15 50780B/27 ★US 4158-629
Dynamic self-cleaning liq. filter - has sonic sinusoidal wave inducing transducer fixed to outside of resonant tube
BEEHLER V D 05.07.77-US-812569 (23.08.76-US-716529)
J01 (19.06.79) B01o-29/36

Continuous self-cleaning liq. filter has an outer resonant tube concentrically mounted around an inner composite tube to define an annular chamber between them. The inner tube consists of a thin walled perforated liner enveloped in a filter blanket. Liq. to be filtered is introduced at one end of the annular chamber and residual concentrate is discharged from the other. The inner tube has an outlet at one end for clear effluent and a closed opposite end.

A sonic sinusoidal wave inducing transducer is fixed to the outside wall of the outer resonant tube at an antinodal point to excite the outer tube into resonance. This continuously transforms the liq. to be filtered within the annular chamber into a state of intense vaporous cavitation energy which implodes the filter blanket surfaces causing accumulated residue to be continuously removed and returned to the concentrate flow in the annular chamber.

The filter is continuously cleaned without the addn. of cleaning agents, e. g. acids. Cleaning occurs deep within the interstices of the filter blanket. 5. 7. 77 as 812569 (+30. 4. 75, 20. 11. 75, 23. 8. 76-US-573043, 633818, 716529) (7pp67)

MITU D15 51927A/29 =US 4158-
Water soluble pearl polymer prodn. - by polymerising aq. soln quat. acrylic cpd. in dispersion medium using cellulose ester ether as stabiliser
MITSUBISHI CHEM IND KK (KYOY) 05.01.77-JA-000289
*A91 C03 (A14) (19.06.79) *DT2800-520 C08f-02/08 +C08f-C08f-222*

Prepn. of water-soluble bead polymer comprises first ming an aq. monomer soln. contg. 60-90 wt. % monome formula $CH_2=C(R_1)-COOY-N^{\oplus}R_2R_4-R_3 X^{\ominus}$ (I) or monon mixt. contg. (i) 50-100 mol% (I) and (II) further vinyl comonomer.

Soln. is then dispersed in a dispersion medium whicl non-compatible with the aq. monomer soln. and which inert under polymerisation conditions. Medium contain 0. 05-10 wt. % cellulose ester or ether which is insolubl water but soluble in the medium.

Monomer in the droplets are then polymerised at a t of from 40 °C to the temp. at which the dispersion mediu boils, in the presence of a free radical polymerisation itiator and in the absence of O_2. 27. 12. 77 as 864871 (15pp936)

See Also

D18 GB 1548140
D22 BE 873267
D22 BE 87326
D22 DT 2584078

D16 : FERMENTATION INDUSTRY

TAKE ★ D16 49005B/27 ★BE -873-217
Antibiotic G-6302 prepd. by fermenting Pseudomonas acidophila - useful as antibacterial, disinfectant and intermediate
TAKEDA CHEMICAL IND KK 30.12.77-JA-160308
B04 C03 (D22) (29.06.79) C07c C12d

The antibiotic G-6302 (I) and its salts are new. It is a white powder with the following characteristics: (a) starts to melt at 120°C with decomposition at 130°C; (b) analysis C 34. 99+0. 5%, H 5. 59+0. 5%, N 13. 30+0. 5%, O 38. 13+0. 5%, S 7. 70+0. 5% (sample dried at 40°C for 6 hrs. over P_2O_5 at reduced pressure); (c) no UV absorption above 210 nm; (d) major IR absorptions in KBr at 1770, 1650, 1530, 1240 and 1043 cm^{-1}; (e) $[\alpha]_D^{23}$ =+94+10° (c =0. 35 in water); (f) insoluble in petrol, hexane, ether, benzene, ethyl acetate and $CHCl_3$; moderately soluble in ethanol, pyridine and acetone; soluble in methanol and DMSO; easily soluble in water; (g) is acidic; (h) has titrimetric mol. wt. 400+20; (i) gives positive ninhydrin and $KMnO_4$ reactions; negative $FeCl_3$-$K_3Fe(CN)_6$, Sakaguchi and Molisch reactions; and a doubtful positive Ehrlich reaction.

(I) is effective against Gram neg. and Gram pos. species. It is useful in human and veterinary medicine and as a disinfectant or intermediate, and caused no deathes in mice when given intravenously at 0. 5g/kg. 29. 12. 78 as 873217 (27pp1251)

MOLS- ★ D16 49048B/27 ★BE -874-486
Ethanolic extract of ground malt - used as anti-foaming agent in fermentations pref. in brewing
MOLSON CIES LTD 30.10.78-CA-314812
(18.06.79) B01d C12b

The agent reduces foam during fermentation and is pref. used in brewing esp. in the mfr. of beers. The agent is preped. by a relatively simple process and isscompatible with foods.

The extn. is pref. carried out using alcohol over 75% concn., esp. 95%, at 50°C. The agent contains unsatd. fatty acids, phenolic cpds. and lipoproteins. 27. 2. 79 as 874486 (5pp597)

SCHM/ ★ D16 49096B/27 ★DL -134-9
High quality sera for cell cultivation prodn. - using toxin-sensiti cell line for testing the sera, useful in vaccine prodn.
SCHMIDT D 13.03.78-DL-204135
B04 (04.04.79) C12k-09

Method for producing high-quality sera for cell cultivati uses a quantitative serum-testing method with single an at least double the concn. of serum normally used in the cell growth medium. For testing the serum a cell line (A is used which is related to, but not identical with, the c line (B) used for vaccine prodn. (A) must be more sensit to toxins in the serum than (B).

The test allows toxic sera (which would, if used, cau a breakdown in vaccine prodn.) to be recognised and exc-ed. 13. 3. 78 as 204135 (6pp1251)

DEAK ★ D16 49168B/27 ★DL -135-2
Fermentation substrate selection - by measuring oxygen absorpti in aq. soln. by air jets
AKAD WISSENSCHAFT DDR 05.12.77-DL-202398
R16 (18.04.79) C12b-01 G01n-13

Fermentation substrates for use in the industrial fermen-tion are selected by their interfacial chemical properti by dissolving in or extracting with water. The extracts a degassed, followed by a gas absorption in the aq. soln. T increase in the concn. of the gas in the aq. soln. is contin ously measured so that the mass transfer coefficient car be calculated.

This helps to select a substrate which has the highest productivity in a fermenter for the same energy input an the same aeration intensity. 5. 12. 77 as 202398 (7pp39)

DEAK ★ D16 49169B/27 ★DL -135-2
Microbial aerobic pyruvate synthesis using Xanthomonas bacteri first propagated on nitrogen-contg. medium with carbon sour unsuitable for poly:saccharide prodn.
AKAD WISSENSCHAFT DDR 10.04.78-DL-204674
E17 (18.04.79) C12d-13/04

In aerobic microbial pyruvate synthesis. by Xanthomona bacteria, in an inorganic salt medium contg. an inorgani and/or organic N source, the bacteria are first propaga

a C source suitable exclusively for Xanthomonas pro-
ion, e.g. lower fatty acids and alcohols, polyhydric
ols, e.g. glycerol, polybasic- and hydroxycarboxylic
..

plain or polymeric sugar, pref. glucose, fructose,
harose or starch, is added, as 2nd C source, after
omplete consumption of the assimilatable parts of the
urce. The 2nd C source is pref. added while measur-
quantities, e.g. 10%, of 1st C source are still avail-
.

he process can be used in the microbiological industry
ysaccharide synthesis is suppressed. 10.4.78 as
574 (6pp200)

D16 72006S/45 =DS 2120-929

ine for mareks disease

ERCK & CO INC 29.04.70-US-033060

*04 C03 (28.06.79) *BE-766-492 C12k-09*

ole vaccines for the immunisation of chickens against
ek paralysis comprises inactivated living turkey
pes virus, ATCC VR 584, opt. freeze dried in a cell
pension.

Prepn. of these vaccines comprises repeated propaga-
of the virus in chicken or hen embryofibroblasts or
enembryofibroblasts, followed by sepn. of the inactivat-
virus and stabilisation, opt. with dimethylsulphoxide,
10 vol.%). 28.4.71 as 120929 (7pp47)

B D16 38037U/27 =DS 2261-270

nplex enzymes - with wall lysing activity

KUMIAI CHEM IND KK 14.12.71-JA-100700

*B04 C03 +R16 (28.06.79) *NL7216-891 C12d-13/10*

epn. of an enzyme complex for the lysis of cell wall tis-
e comprises propagation of Pellicularia sasakii or P.
amentosa species in appropriate nutrient media at 20-
°C. under aerobic conditions for 48-120 hr., followed by
olation of the enzyme complex from the media. The en-
me is salted out with $(NH_4)_2SO_4$ or pptd. with Me_2CO or
OH, collected and dried.

The prod. is used for the lysis of certain active bacteria,
asts, fungi, basidiomycetes and chlorella species.
.12.72 as 261270 (11pp47)

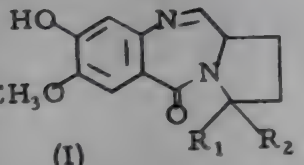
ID D16 12856Y/08 =DS 2645-528

eothramycins A and B and methylneothramycins - antitumour
ents active against leukemia L-1210 cells which have
tibacterial and antifungal activity

ZH BISEIBUTSU KAGAKU KEN 15.10.75-JA-123256

*B02 (28.06.79) *BE-847-372 A61k-31/55 C07d-487/04 C12d-09/16*

yrrolo(2, 1-c)-1, 4-benzodiazepines (Neothramycins) of
ormula:



(I)

(where R_1 or R_2 is H and the other is OH or CH_3O) or their salts are new.

(I), which are made by a specified microbiological process, are antineoplastic and leukaemia cell growth inhibitors are only weakly antibacterial and have low acute toxicity and hence are largely free of side effects. 8.10.76 as 645528 (18pp922)

YSO- ★ D16 49395B/27 ★DT 2854-277

Protein e.g. immunoglobulin immobilisation agent - consisting of
polyester suspension and two separate aq. di:aldehyde e.g.
glutaraldehyde solutions

VYSOKA SKOLA CHEMIC 16.12.77-CS-008437

A96 B04 J04 (28.06.79) C07g-07

New agents for insolubilising proteins and their cpds. with other substances (esp. saccharides and lipids) consists of three independent components contained in three independent vessels. The first component is a 1-40% suspension of a finely granulated polyester in water or in an aq. soln. of substances which inhibit pH-changes. The second component is a 5-40% aq. dialdehyde soln. The third component is a 0.1-5% aq. dialdehyde soln.

Used in the immobilisation of proteins and their cpds. (including complexes with metal ions or coenzymes) to give biospecific adsorbents. Insolubilisation can be carried
al with minimal training, so that the agents

15.12.78 as 854277 (11pp280)

FABB/ ★ D16 49463B/27 ★FR 2404-473

Sprinkling wine through marc in fermenting vessel using flinger wheel - to obviate blocking of orifices and reduce power required

FABBRI F 30.09.77-FR-030163

P42 (01.06.79) B05b-03/04 C12g-01

A liq. sprinkler comprises a rotary bladed flinger wheel onto which an open-ended pipe delivers the liq. as the wheel is rotated by a drive system. The drive system pref. comprises a turbine rotor fixed on the flinger wheel shaft and powered by liq. which is eventually sprinkled by the flinger wheel. Alternatively, the flinger wheel shaft may be rotated by an electric motor.

The flinger wheel is pref. fixed to the lower end of a vertical shaft which is extended centrally inside the top of a wine fermenting vessel. Wine drawn from the vessel is recycled by pumping through the pipe delivering onto the flinger wheel.

Used for spraying liqs. heavily charged with particles, esp. recycling wine drawn from a fermenting vessel by sprinkling it ontop of the cake of marc inside the vessel. There are no small orificies to block up. The sprinkle is evenly distributed over an extensive area with only a very low power requirement. 30.9.77 as 030163 (10pp448).

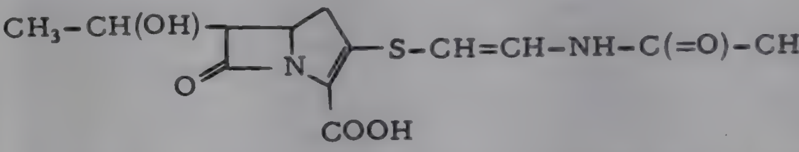
MERI D16 82381Y/46 =GB 1547-949

Antibacterial thiamycin analogues - obtd. by culturing Streptomyces flavogriseus strains

MERCK & CO INC 28.04.76-US-680831

*B02 (04.07.79) *NL7704-040 A61k-31/40 C07d-209 C07d-487/04 +A01n-09/12 C07d-205*

New thienamycin antibiotics and pref. their salts are of formula (I).



(I)

The antibiotics may be added to food or feed and are also suitable for bactericidal use in water-based paints or the white water of paper mills and for treatment of medical and dental equipment. 26.4.77 as 017351. (29pp910)

SIMP- ★ D16 49503B/27 ★GB 1548-077

Continuous malting of grain using pre-germination vessels - having lower perforated aeration screens and sleeping arms

SIMPSON & CO LT J P 10.03.77-GB-010244

(04.07.79) C12c-01/02

Continuous malting of grain includes pumping grain through a rotary washing and wetting unit from a metering unit and spraying the grain as it enters a pre-germinating vessel. The grain is sprayed further as it enters another pre-germinating vessel and is transferred to a germination unit and passed to a drying and kilning unit. Malt is subsequently delivered from the appts.

The pre-germinating vessels are each formed with a perforated cone and a discharge cone supported by beams with sweep arms rotating between the two cones.

Continuous steeping of grain by spraying allows the grain to enter the germination unit at the optimum moisture level. There is a redn. in the amt. of water used, redn. in effluent after steeping, increased depth of grain and increased malting capacity. The perforated cones allow air and grain to pass through the vessel evenly and be continuously discharged. The grain takes up moisture evenly as it moves down each vessel. 27.2.78. (4pp1044)

FARH ★ D16 49536B/27 ★GB 2010-847

Prodn. of insulin producing cell line - by fusing two cell lines with a synthetic agent, esp. polyethylene glycol

HOECHST AG 22.12.77-DT-757169

A96 B04 (04.07.79) C07g-15 C12k-09

Insulin-producing cells that can be cultivated are produced by fusing insulin-producing cells (A_1) that are not capable of sustained cultivation with cultivatable cells (B_1) by using a synthetic fusion-inducing agent (I).

Cells (A_1) are pref. derived from pancreatic material esp. obtd. from man, rats or pigs. Cells (B_1) are suitably A9 or HeLa cells or their mutant strains which may be grown in suspension in a selective medium and can divide in quick succession.

The new permanent cell line can be used for insulin prodn. 22.12.78 as 049876. (4pp1248)

PELL/ ★ D16 49565B/27 ★GB 2010-975
Brewing or wine-making container - with externally breath-inflatable bag in ullage space for raising gas pressure
PELL W H 29.12.78-GB-050232 (30.11.77-GB-049943)
Q56 (04.07.79) F04b-43/06

Gas pressure in the ullage space of a beer brewing or wine fermenting container is augmented by a bag in the space and which is inflatable from the outside by human breath. The bag is of hygenic non-toxic material, or is a balloon with a hygienic non-toxic covering. There is pref. a one-way valve in the bag neck or in a mouth tube to the bag. 29.12.78 as 050232. (3pp1358)

LUCC/ ★ D16 B/27 ★IT 1030-503
Wine oxidation prevention - by establishing high, volatile acidity
LUCCHESI G 11.02.66-IT-003115
(10.04.79) C12g

WAKP ★ D16 49647B/27 ★J5 4063-887
Determn. of the amt. of substrate or activity of enzyme - using surfactant as colour stabiliser in monitoring change of reduced type hydrogen transfer carrier with methylene blue indicator
WAKO PURE CHEM IND KK 31.10.77-JA-130458
B04 J04 R16 (23.05.79) G01n-31/14

Determn. of the amt. of a substrate or the activity of an enzyme comprises using surfactant (pref. anionic surfactant such as carboxylate, sulphate, higher alcohol sulphuric acid ester salt, etc.) as colour stabiliser, in determining the change of reduced type hydrogen transfer carrier (reduced type nicotinamide-adenine dinucleotide; NADH) varying in relation to the amt. of substrate or enzymatic activity as the change of colour of methylene blue via intermediate electron transfer matter in the enzymatic reaction consisting of > 1 enzymatic reactions involving the enzymatic reaction in which hydrogen transfer carrier acts as coenzyme.

With the use of surfactant as colour stabiliser, the amt. of substrate or the activity of enzyme can be rapidly and precisely determined, and the method can be easily applied to automatic analytical method. 31.10.77 as 130458 (8pp50)

KIBU- ★ D16 49823B/27 ★J5 4064-683
Single cell protein prodn. - by culturing microorganism, e.g. Candida lipolytica, in medium contg. distillers solubles component
KIBUN KK 28.10.77-JA-128654
(D13) (24.05.79) C12b-01/20 C12b-03/12 C12c-11/08

Single cell protein (I) prodn. comprises incubation of (I)-producing microbial (II) in culture medium contg. components (III) in distiller's solubles (IV). The fraction, which is obtd. by centrifugation or filtration of (IV)-concentrate and fractionation of (III) having a certain mol. wt., is used as (III).

(IV) is waste water in whisky-distillation and grain alcohol distillation. The centrifugation should be carried out with revolution speed > 50,000 G and 1-10% of filter aid should be added to (IV)-concentrate in filtration. For fractionation of (III), molecular sieve-treatment or ultrafiltration are used. As (I), Candida lypolitica and Candida methanolica are used. 28.10.77 as 128654 (7pp42)

MITN ★ D16 49824B/27 ★J5 4064-687
Prodn. of yeast mycelium - by culturing Pichia aganobii capable of utilising methanol and/or ethanol
MITSUBISHI GAS CHEM IND 00.00.78-JA-108755
C03 (D13) (24.05.79) C12c-11/08

Prodn. of yeast mycelium (I) comprises (1) incubation of a microbe (II), which belongs to Pichia aganobii and can digest methanol and/or ethanol and (2) sepn. of (I). Recently methanol and ethanol have been produced more inexpensively and they can be utilised effectively in the present method. The obtd. (I) is used as animal-feed.

In the culture medium, nitrogen source, such as ammonium salts, urea, corn steep liquor, yeast extract, meat extract and others, inorganic salts, such as calcium salt, magnesium salt and others, and vitamins should be added.

Sugar, such as glucose, is pref. added to culture medi as carbon source other than methanol and/or ethanol, or ethanol, for increase of (I)-growth and decrease of poration loss of alcohols. 30.6.75 as 108755/78 (7pp4

GREC ★ D16 49825B/27 ★J5 4064
Stabilising urokinase against heat during deactivation of virus heat-treating urokinase-contg. liq. in presence of gelatin
GREEN CROSS CORP 02.11.77-JA-131870
B04 (24.05.79) C07g-07/02

Method for enhancing the heat stability of urokinase du the heat-treatment for deactivation of virus possibly pr ent therein comprises effecting the heat-treatment of a okinase-contg. liq. in the presence of gelatin.

Urokinase pref. has a specific activity of > 200 IU pref. > 1,000 IU/mg. The amt. of urokinase as prote the liq. to be heat-treated is pref. 0.1-5 (0.3-1.0)% w/ The liq. to be heat-treated is pref. adjusted to a pH of 8 with a suitable buffer soln. Gelatin is added at a pre final concn. of 0.1-5 (0.3-3)% w/v, as protein. The h treatment is pref. conducted at 50-70°C, pref. 55-65° for 8-12 hrs.

There is little danger of incorporation of antigen sub stances into preparations and heat stabilisation is effec ively carried out. Since gelatin need not be removed a the heat-treatment by selecting the added amt., incorp ation into preparation processes of urokinase is easy. 2.11.77 as 131870 (3pp140)

NIPT ★ D16 49826B/27 ★J5 4064-
Enzyme fixation process - involves thawing mycelium, washing prod. with warm water, then adding small amt. of crosslink agent
NIPPON TENSAI SEITO KK 02.11.77-JA-130827
B04 (24.05.79) C07g-07/02

An enzyme (I) is fixed by (1) thawing (I)-contg. frozen m celium (II) with warm water, (2) washing the prod. and treating it with a small amt. of reagent (III), which can form cross-linkages.

(II) are e.g. Absidia regnieri, Syncephalastrum race mosum, Mertierella vinaceavar raffinose utiliser, Strep tomyces phaeochromogenum and others. (II) is washed with water at 50-55°C and treated with (III), such as glu aldehyde, hexamethylene di-isocyanate, bisdiazo benzid etc. The amt. of (III) used is 0.05-0.10 w/v % on (II).

In an example, (II) of Absidia regnieri contg. α-galac -sidase was washed with water at 50-55°C for 12 hrs., and suspended in glutaraldehyde soln. in conc. of 10 w/v % pH of the glutaraldehyde soln. was adjusted to 7.0 by addn. of phosphate buffer soln. Content of (I) in the prod was 1-1.5%. 2.11.77 as 130827 (4pp42)

SHIO ★ D16 49827B/27 ★J5 4064-6
Synthesis of peptide derivs. - by reaction of aminoacid(s) or peptid derivs. at optimum pH, in presence of proteinase
SHIONOGI KK 02.11.77-JA-131859
B04 (24.05.79) C12d-13/06

Synthesis of peptide deriv. (I) of X-A-B-Y, X-A-B-C-OH or X-A-B-C-Y, comprises the reaction between amino acid or peptide deriv. of X-A-OH and other amino acid or peptide deriv. of H-B-Y, H-B-C-OH or H-B-C-Y at 20-50°C and the optimum pH in the presence of proteinase. In this reaction, one of the reactants should be present in excess. (X is protective radical of terminal amino, or amino or peptide residue protected, Y is protective radical of terminal carboxy, A and B are amino, with which proteinase reacts selectively and C is amino acid residue or peptide residue).

As raw material, amino acid or peptide deriv., in which carboxy-terminals are not modified, can be advantageously used. 2.11.77 as 131859 (5pp42)

KYOW ★ D16 49828B/27 ★J5 4064-69
Peptide derivs. prepn.. from amino acid derivs. - in presence of fixed thiol proteinase or fixed alkali proteinase
KYOWA FERMENTATION KK 02.11.77-JA-130746
B04 (24.05.79) C12d-13/06

Peptide deriv. (I) X-A-B-Z, is prepd. by the reaction between amino acid deriv. or peptide deriv. X-A-Y and oth-

no.acid deriv. or peptide deriv. H-B-Z, in the pre-
of fixed thiol proteinase (II) or fixed alkali protein-
I), in a water-miscible solvent, which can dissolve
aw material and product. In the formulae, X is H
tective radical of amino, A and B are the same or
ent amino or peptide, Y is ester-, amide- or hydra-
ype protective radical of terminal carboxyl and Z is
rotective radical of terminal carboxyl).
can beproduced in high yield, because the product
not precipitate. (II) is papain, Streptococcal protein-
c.. (III) is α-chymotrypsin, trypsin, esterase, Cop-
macrorhizus F. microsporous proteinase etc.
77 as 130746 (15pp42)

★ D16 49829B/27 ★J5 4064-694
stane deriv. prodn. - by microbiological oxidn. of sterol
.) then adsorption of prod. onto active carbon
YOBO KK 02.11.77-JA-131839
(24.05.79) C12d-13

very of androstane deriv. (I), comprising (1) micro-
gical oxidn. of sterol or its deriv., sterol-4-ene-
e or sterol-1,4-diene-3-one; and (2) contact of the
re liq. with active carbon for adsorption of (I). (I)
e obtd. in high yield.
s sterol, those having hydroxide C-3, such as ergo-
l, acholesterol, stigmasterol, sitosterol, etc. should
sed. The microbials used are thos belonging to Arth-
cter, Nocardia, Mycobacterium Streptomyces, Bac-
, Corynebacterium etc. The active carbon pref. has
s of relatively large dia. When culture liq. is contact
with active carbon, only (I) is adsorbed selectively.
amt. of active carbon is usually 5-100 g/l of culture
(I) is eluted out, if the active carbon is washed with
ent, such as (m)ethanol, acetone or the furan and oth-
2.11.77 as 131839 (5pp42)

★ D16 50002B/27 ★J5 4066-295
e propagation - under an atmos. in which light of wavelength
w 330 nanometres is not present
IPPON CARBIDE KOGY KK 28.10.77-JA-128795
97 P13 (28.05.79) A01g-33 C12b-01/20 C12k-01

pagation of algae comprises promoting their growth
r an atmosphere where light with the wavelength of ≤
nm is not present. Also claimed is a material for al-
propagation of algae which provides the above condit-
.
Method accelerates the propagation of green algae and
green algae which contain a large amt. of good quality
tein. In order to obtain the conditions (atmosphere)
algae is covered with covering material. The cover-
material can comprise organic or inorganic film or
e. Example of inorganic material is glass plate contg.
or pigment. Suitable organic materials are synthetic
in film, e.g. PVC polyvinylidene chloride, polyethyl-
, polypropylene, polyester, etc. 28.10.77 as 128795
p108)

EN ★ D16 50074B/27 ★J5 4066-568
ating garbage-contg. dust - by crushing, adding water to form
ry, fermenting, neutralising and contacting with methanisation
teria in anaerobic state
AGENCY OF IND SCI TECH 08.11.77-JA-133017
(29.05.79) C12d-03/10

thod comprises (a) crushing and adding water to form a
rry having organic matter content of 5 to 20% and, (b)
roducing the slurry into a fermentation vessel where it
treated with alcohol-fermentation yeast, e.g. seed
st of Saccharomyces cerevisiae, Saccharomyces dia-
tics and Candida lipolitica cultured previously under
erobic state at pH 5, and 30°C for 3 days. The slurry
under agitation of 100 r.p.m. and at pH 5 30°C. Meth-
further comprises (c) adding a neutralising agent, e.g.
$(OH)_2$ etc. to convert carbohydrates contained in the
rbage into EtOH and proteins and lipids into lower mole-
lar cpds.; and charging the unrefined EtOH-contg. slur-
into a gasifying vessel wherein it is directly in contact
th methanisation bacteria under anaerobic state, and
oroughly agitating at pH of 7-8 and temp. of 20-75°C to
nvert EtOH and other lower molecular cpds. into CH_4
8.11.77 as 133017 (3pp34)

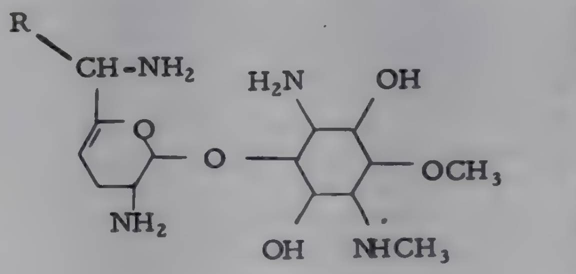
TAKE ★ D16 50075B/27 ★J5 4066-602
Antibiotic T-47811 effective against Escherichia coli etc. - produced by fermenting Streptomyces pactum
TAKEDA CHEMICAL IND KK 31.10.77-JA-131244
B04 (29.05.79) C07g-11 C12d-09/14

Antibiotic T-47811 has the following physiochemical properties, (a) appearance: pale yellow powder; (b) elementary analysis: C 61.72 ± 1.0%, H 7.24 ± 0.5%, N 0.13 ± 0.5%; (c) UV spectrum: $\lambda^{\text{ethanol}}_{\text{max}}$ 238 ± 2 mm ($E^{1\%}_{1\text{cm}}$ 569 ± 56), $\lambda^{\text{ethanol}}_{\text{max}}$ 265 ± 2 mm ($E^{1\%}_{1\text{cm}}$ 180 ± 18), $\lambda^{\text{ethanol}}_{\text{max}}$ 318 ± 2 mm ($E^{1\%}_{1\text{cm}}$ 60 ± 6); (d) IR spectrum (KBr): (cm^{-1}) 3390, 1670, 1605, 1525, 1490, 1470, 1443, 1360, 1334, 1292, 1254, 1215, 1110, 1073, 687, 588; (e) specific rotatory power: $[\alpha]^{22}_{D}$ + 39.2° ± 5° (c = 0.5, ethanol); (f) solubility: insoluble in petroleum ether. hexane; sparlingly soluble in benzene, ethyl ether, neutral water; easily soluble in ethyl acetate, chloroform, acetone, methanol, etc.; (g) colour reaction: positive in Dragendorff, Burton reactions; (h) amphoteric; (i) stability: slightly unstable in acid side and unstable in basic side; (j) NMR spectrum: (1) bichloroform-heavy water, 0.85 (3H, t), 1.51 (3H, s), 2.2-2.6 (2H, m), 2.34 (3H, s), 2.42 (3H, 2), 2.96 (6H, s), ca. 3.3 (1H, br), ca. 3.8 (1H, br), 4.62 (1H, d), 4.80 (1H, d), 6.5-7.3 (7H, m)., (2) bimethylformamide 0.96 (3H, t), 1.56 (3H, s), 2.1-2.6 (2H, m), 2.20 (3H, s), 2.49 (3H, s), 2.97 (6H, s), 3.6-4.0 (2H, m), 4.54 (1H, d), 4.70 (1H, d), 6.6-7.4 (7H, m); (k) mass spectrum of diacetyl cpd. of T-47811: (m/e) 581 (M^+ -45). (1) Melting point of diacetyle cpd. of T-47811: 175-178°C.

Prepn. comprises cultivating T-47811-producing strain belonging to Genus Streptomyces (specifically S. pactum T-47811 IFO 13766) in a medium to accumulate the antibiotic T-47811 in the culture and recovering the same.
31.10.77 as 131244 (10pp140)

KYOW ★ D16 50126B/27 ★J5 4066-679
Antibiotic fortimicin-KE and KG - produced by cultivating strain of Micromonospora in nutrient medium
KYOWA FERMENTATION KK 07.11.77-JA-133305
B03 (29.05.79) A61k-31/35 C07d-309/20 C12d-09/14 C12d-13

Fortimicin KF (I, R = H fortimicin KG (I) ($R=CH_3$) and non-toxic acid addn. salts are new. (I) show broad antibacterial spectrum against gram-positive and gram-negative bacteria.



(I)

Production by culturing a fortimicin KF- or KG-producing strain of Micromonospora in a nutrient medium and recovering the resulting antibiotic. 7.11.77 as 133305 (13pp33)

MITK ★ D16 50148B/27 ★J5 4066-887
Reagent for L-lysine determn. - comprises L-lysine-alpha-keto-glutaric acid epsilon-transaminase, dehydrogenating enzyme, coenzyme and alpha-keto-glutaric
MITSUI TOATSU CHEM INC 08.11.77-JA-133005
B05 E16 J04 R16 (29.05.79) G01n-31/22

The reagent comprises (a) L-lysine-alpha-keto-glutaric acid-epsilon-transaminase, (b) L-glutamic acid dehydrogenating enzyme, (c) coenzyme and (d) alpha-keto-glutaric acid.

The reagent is used for selective determn. of L-lysine in the presence of other amino acids. The determn. can be carried out simply with high accuracy, in a short period of time.

L-lysine in the sample, pref. reacts with alpha-keto glutaric acid in the presence of the enzyme (a) and coenzyme (pyridoxal-5'-phosphate) to give alpha-aminoadipic acid delta-semialdehyde and L-glutamic acid. The result-

ing L-glutamic acid is pref. dehydrogenated in the presence of the enzyme (b) and coenzyme (typically nicotinamide-adenine dinucleotide, NAD) to yield alpha-keto-glutaric acid, ammonia and hydrogenated NAD(NADH$_2$) of which quantity is equivalent to that of L-lysine present in the sample. Thus, NADH$_2$ is determined by measuring UV absorption, and the L-lysine content in the sample is calculated from the NADH$_2$ content in the reaction mixt.
8.11.77 as 133005 (4pp173)

CANP D16 18403V/10 =J7 9014-647
Isolation and refining of kallikrein
CANADA PACKERS LTD 06.03.72-US-232203
*B04 (08.06.79) *J48103-715 +A61k-37/44 C07g-15*

Process for recovering pure kallikrein (I) from pancreas tissue comprises (i) extracting the tissue with a pH 4-9 salt (e.g. NaCl) soln.; (ii) adding a salt, e.g. $(NH_4)_2SO_4$, to the extract to precipitate water-insoluble protein while leaving (I) in soln. (iii) removing precipitate; (iv) adding more salt to precipitate crude (I); (v) redissolving crude (I) in an aq. soln.; (vi) dialysing; (vii) (I) adsorbed on a strongly basic synthetic anion-exchange resin, e.g. IRA-900, -904 or -938; (viii) washing column to remove impurities and (ix) eluting to recover (I) with 60% recovery. 25.5.72 as 051307 (clg. 6.3.72-US-232203) C07g-15/00, A61k-37/44 (8.6.79) CANADA PACKERS LTD (7pp) (J4 8103715)

TAKA- D16 08629Y/05 =J7 9014-665
Enzyme prodn. which decomposes. pectic substances - by culturing genus delonging to Polyporellus
TAKARA SHUZO KK 12.06.75-JA-071627
*(08.06.79) *J51148-091 C12d-13/10*

Prepn. of enzyme (which decomposes pectic substances composed of pectinpolygalacturonase and/or pectintranseliminase) comprises culturing a stock capable of producing the enzymes belonging to Polyporellus and recovering the enzyme from the cultured products. Carbon source is sucrose, glucose, fructose, starch, molasses, etc. Nitrogen source is ammonium salt, nitrate, urea, peptone, beef extract, corn steep liquor, etc. Inorganic cpds., metallic salts and a growth accelerator may be added to the medium.

The culture is at 20-35°C under pH 4-7 for 5-10 days. Industrially the culture is practiced by submerged culture

From the cultured prods. enzymes can be recovered by usual methods. Thus sepd. enzymes, contain pectinesterase other than above two enzymes, and can be applied for clarifying fruit juice, etc. as it is. The enzyme opt. can be further refined using ion exchangers and gel filtration. 12.6.75 as 071627 C12d-13/10 (8.6.79) TAKARA SHUZO KK (4pp) (J5 1148091)

KYOW D16 31015X/17 =J7 9014-666
Fructose and saccharose fatty ester prodn - by cultivating nocardia or mycobacterium
KYOWA HAKKO KOGYO K 02.09.74-JA-099878
*B03 (08.06.79) *J51029-291 C07h-13/06 C12d-13*

3-5C Fatty ester of fructose and 3-8C fatty ester of saccharose useful in immunity treatment of cancer, are obtd. by culturing Norcardia or Mycobacterium and recovering from broth. 2.9.74 as 099878 C12d-13/00, C07h-13/06 (8.6.79) KYOWA HAKKO KOGYO KK (7pp) (J5 1029291)

KYOW D16 52683X/28 =J7 9014-667
Fatty ester of glucose and trehalose prodn - by fermentation of Nocardia and Mycobacteria with subseq. product chromatography
KYOWA HAKKO KOGYO K 02.09.74-JA-099879
*E13 (08.06.79) *J51029-292 C07h-13/06 C12d-13*

Nocardia and Mycobacterium are cultured as medium with stirring and using air at 25-40°C, at pH=4-9 (pref. 6-8) adjusting the pH with urea soln., carbonate, ammonia water, or ammonium carbonate.

Cultivation is completed in 1-7 days, to produce fatty acid ester of glucose and trehalose which are then purified by the repeated chromatography on silica gel. 2.9.74 as 099879 C12d-13/00, C07h-13/06 (8.6.79) KYOWA HAKKO KOGYO (5pp) (J5 1029292)

KAWA- D16 60605V/34 =J7 9
3-9C L-alpha-hydroxy acids enzymatic prodn. - from corre alpha-hydroxy- nitriles by fermentation with Torulopsis
KAWAKEN FINE CHEM 05.09.72-JA-088342
*E17 (08.06.79) *J49042-886 +C12d-01/02*

L-α-Oxy acid was produced by Torulopsis from DL- nitrile with 3-9C. The L-α-oxy acid was sepd. from culture broth by combination of filtration concn., pH adjustment, extn., and active C treatment.

In an example, Tosulopsis Candida (FERM-P 1591 cultured with shaking at 30+5° for 72 hrs. in a mediu contg. glucose 10, KH$_2$PO$_4$ 1, MgSO$_4$.7H$_2$O 0.5, CaC 2H$_2$O 0.2, and yeast ext. 0.1g with added 0.1g DL-2- hydroxyisovaleronitrile (I). The culture supernatant was concd. under the reduced pressure and extracte unreacted I with Et$_2$O at pH 10, L-2-Hydroxy-isovale acid (II) was extd. with C$_6$H$_6$ from the H$_2$O phase at p The ext. was treated with active C and concd. 80mg of II with m.p. at 63-4° and $[\alpha]^{25}_{D}$ at + 15.5 (CHCl$_3$) w obtd. from 500ml broth. 5.9.72 as 088342 C12d-1/02 (8.6.79) KAWAKEN FINE CHEM CO LTD (3pp) (J4 9042886)

KIKK D16 33026V/18 =J7 90
3',5'-Cyclic adenylic acid prepn. - by aerobic cultu Corynebacterium, Arthrobacter or Microbacterium strai medium contg. no precursor for 3',5'-cyclic aden-ylic acid
KIKKOMAN SHOYU KK 23.02.73-JA-021342
*B02 (08.06.79) *DT2351-738 C12d-13*

Biochemical reagent 3',5'-cyclic adenylic acid (I) is by cultivating, under aerobic conditions, a microorga strain which is capable of generating (I) without a pre sor for (I), pref. a Corynebacterium murisepticum, Arthrobacter 11 or Microbacerium No. 205 strain, in medium contg. sources for C and N but no precursors (I), at pH 4-9, 20-40°C, pref. with shaking, stirring aeration for 24-80 hrs.; followed by recovering (I) ac lated in reaction medium. 23.2.75 as 021342 C12d-13 (8.6.79) KIKKOMAN SHOYU CO (8pp) (J4 9109586)

AJIN D16 54754W/33 =J7 901
5'-Nucleotide microbial prodn - by culturing sarcina on a me contg. nucleotide and phosphate ions
AJINOMOTO KK 07.08.73-JA-088670
*B04 (08.06.79) *J50036-693 +C12d-13*

5'-Nucleotide was produced by Sarcina cultured on a m ium contg. nucleotide and PO$_4^{3+}$. In an example, S. lut ATCC 0341 was cultured on a medium (pH 6.5) contg. dl.) 10g. glucose, 0.25g. (NH$_4$)$_2$HPO$_4$, 2g. MgSO$_4$-7H$_2$ 2g. KH$_2$PO$_4$, 3g. yeast extract 1g. inosine, and 5g Ca at 31°C for 72 hrs. 5'-inosinic acid (I) was produced a 0.36g/dl. The culture filtrate was passed through a col of Diaion SK1 (H$^+$) at pH 4.5. Fractions contg. (I) wer -lected, adjusted to pH 7.2, concd. under reduced pre ure, and cooled; yield or cryst. (I) was 4g. 7.8.73 as 088670 C12d-13/00 (8.6.79) AJINOMOTO KK (3pp) (J5 0036693)

KYOW D16 64690W/39 =J7 9014
Fermentative prodn. of guanine nucleotide - from Brevibacteriu Corynebacterium on XMP
KYOWA FERMENTATION KK 03.09.73-JA-098247
*A97 (08.06.79) *J50048-192 +C12d-13*

pppGpp was produced from XMP by Brevibacterium or Corynebacterium cultured on a XMP contg. medium op with a detergent.

In an example, B. ammoniagenes ATCC 21, 172 wa cultured at 32° on a medium (pH 7.6) contg. starch hyd lysate 15 (as glucose), urea 0.2, NH$_4$Cl 0.3, KH$_2$PO$_4$ K$_2$HPO$_4$ 1, MgSO$_4$.7H$_2$O 1, corn steep liquor 1, and pe tone 0.5%, plus MnCl$_2$.4H$_2$O 3, adenine 100, and hypox thine 100 mg/l. After 48 hrs. cultivation, XMP soln. (5 mg/ml) and polyoxyethylene stearylamine were added a $^1/_3$ vol. of the broth and at 3 mg/ml resp. and the broth was further cultured for 48 hrs.

Accumulation of pppGpp was 1.8 mg/ml. pppGpp in culture filtrate was adsorbed on an active C eluting wit NH$_4$OH-EtOH, concd., and fractionated by Dowex-1 (C column chromatography. It was further purified by the ve C adsorption and DEAE-Sephadex column chromato-phy. 3.9.73 as 098247 C12d-13/00 (8.6.79) KYOWA RMENTATION KK (3pp) (J5 0048192)

N D16 04282W/03 =J7 9014-673

nosine fermentation production - using adenine-requiring illus mutants resistant to sulpha drugs, methionine, methionine logues or azaserine

AJINOMOTO KK 24.10.73-JA-119749

*E13 (08.06.79) *DT2428-548 C12d-13*

nosine (used as a starting material for the seasoning nt sodium guanosine 5'-monophosphate) is produced in proved yields by cultivating a guanosine-forming, aden--requiring mutant of the genus Bacillus which is resis-t to sulpha drugs, methionine, methionine analogues /or azaserine under aerobic conditions in an aq. cul-e medium until guanosine is accumulated in the medium recovering the guanosine fromthe medium.

Suitable Bacillus mutants are obtd. by subjecting a suit-e parent strain to mutagenic doses of ionising radiation. chemical agents and isolating the desired mutants by propriate screening procedures. The mutants used are ef. also resistant to 8-azaguanine. 24.10.73 as 119749 2d-13/00 (8.6.79) AJINOMOTO CO INC (3pp)(J5 0070592)

MS D16 06511Y/04 =J7 9014-675

denosyl methionine extn. from microbial cells - using a lower mic acid ester

YAMASA SHOYU KK 02.06.75-JA-065354

*B02 (08.06.79) *J51142-515 +C12d-13*

e ester is microbial cells and is treated with a lower rmic acid, (m)ethyl formate, isopropyl formate, n-butyl rmate, etc. Pref. the treatment is carried out using an . soln. of the ester at a vol. mixing ratio (ester/water) 10-900:100, pref. 30-70:100, to suspend the microbial lls pref. in an amt. of 0.3-31, per 100g, of dried cells, r 0.5-3, pref. 1-2 hrs.The cells are then removed from e extract by filtration, centrifugation, etc., and the ltrate or supernatant is distilled to recover the lower formic acid ester.

The prod. can be extracted in high yields and purity. .6.75 as 065354 C12d-13/00 (8.6.79) YAMASA SHOYU KK pp) (J5 1142515)

RCP D16 30763V/17 =J7 9014-676

ighly pure rifamycine B prodn. - by aerobic fermentation of a rain of Steptomyces albovinaceus

ARCHIFAR IND CHIM 29.11.72-IT-032248

*B02 (08.06.79) *BE-805-923 C12d-09/14 C12d-13*

ifamycin B is obtd. in high yield by the aerobic fermen-ation of a mutant strain of Streptomyces albovinaceus Streptomyces G 5/A) using a nutrient medium contg. assi-nilable N, C and organic salts, Rifamycin B is recovered rom the medium using conventional methods. 27.11.73 as 33968 (clg. 29.11.72-IT-032248) C12d-13/00, 9/14 8.6.79) ARCHIFAR IND CHIMICHE (11pp) (J4 9093590)

AMAN D16 10151V/06 =J7 9014-677

Alginic acid extraction - from seaweed treated with protease soln

AMANO SEIYAKU KK 02.02.72-JA-012110

*J01 (08.06.79) *J48082-088 +C12d-13/04*

Alginic acid (I) is extd. from seaweed treated with 0.1% H_2SO_4, steeped in a protease soln. and treated with alkali

In an example, slices of 100g Eisenia bicyclis were treated with 1 l. of 0.1% H_2SO_4 stirring at 60°C for 1 hr. washed with hot and then cold H_2O, treated with1.5 l. of 0.1M phosphate buffer (pH 7) contg. 50mg Aspergillus pro-tease stirring at 45°C for 1 hr. I was extd from the treated seaweed with 21. of 1.5% Na_2CO_3 stirring at 45°C for 1 hr. The ext. was dild. 5 times and filtered. (I) was gelatinised by addn. of 10% H_2SO_4 (100 ml-1 l filtrate). Gel of I was dehydrated, washed and dried with 95% EtOH. Yield is enhanced by 19% compared with the ordinary method. 2.2.72 as 012110 C12d-13/04 (8.6.79) AMANO SEIYAKU CO LTD (3pp) (J4 8082088)

ASAH D16 32775W/20 =J7 9014-680

Antibiotic S15-1 prepd. by fermentation - using streptomyces HW-64 and HW-70 strains

ASAHI CHEMICAL IND KK 26.10.73-JA-120547

*(08.06.79) *DT2450-619 C12d-09/14 +A61k-35/74*

Antibiotic S15-1 ($C_{18}H_{36}N_6O_{10}$) is produced by culturing the new strains. Streptomyces HW-64 or HW-70 (FERM-P 2300 and 2301) in a nutrient medium contg. C and N source and inorganic salts, and isolating the antibiotic from the culture broth. S15-1 is active against Gram-pos. and neg. bacteria and also at higher concns. against fungi and yeast yeasts. It also inhibits the multiplication of viruses (e.g. Newcastle disease virus) in tissue cultures, and can be used as a poultry feed addative. The new astrains give better yields than the known Streptomyces grisoecarnus S15-1 (FERM-P 706). 26.10.73 as 120547 C12d-9/14, A61k-35/74 (8.6.79) ASAHI CHEMICAL IND KK (8pp) (J5 0070595)

PRPO= ★ D16 50394B/27 ★SU -622-910

hydrophobic adhesive mfr. from by/product of sulphate cooking - includes addn. of alkali metal chloride of sulphite or oil to fermentation waste, used in ceramic, mining, building materials mfr., etc.

PERM POLY (CEPA) 30.03.76-SU-351447

F09 L02 M22 (24.08.78) B01j-02 D21c-11

Spent lye from the sulphite-cooking of cellulose isused as a nutrient medium for yeasts; the residual liquor is concentrated (to 30-50% of solids) and dried to powder (residual moisture content 8-10%).

The method is improved by treating the powder with 5-10% of the chloride or sulphate of an alkali metal, or an oil, at 35-70°C. The product is then cooled to 30-40°C granulated and treated with an air stream in a fluidised bed at 10-15°C. By this method, the adhesive properties of the powder are improved, and its hydrophilic tendency is suppressed. The transport, storage and handling of the product are facilitated.

The prod. can be used as a binder for metal-casting moulds, or cores; in petroleum mining as a stabiliser for clay suspensions; in ceramic, cement and building materials industries as a dispersing agent, binder or plasticers; in agricultural chemistry as a wetting agent for pesticides and seed-dressing compsns. etc. The compressive strength of the granules is 25-45 kg/cm^2; the tensile strength is 8-10 kg/cm^2.

Kravchenko, N.A., Postnikova, M.V., Gimasheva, R.G. et al. Bul. 33/5.9.78. 30.3.76. as 351447 (2pp70)

ODST= ★ D16 50482B/27 ★SU -623-556

Pure animal hyaluronidase prodn. - by extn. of salivary gland tissue of dog with aq. sodium chloride soln. and dialysis

ODESS STOMATOLOGY 30.09.76-SU-408813

B04 (03.08.78) A61k-35/48

Hyaluronidase is useful in pharmaceutical ind. for mfng. medical prepns. It is extd. from submandibular salivary glands of animals (dogs) with aq. sodium chloride soln. and purified by dialysing agars distilled water followed by 3-4 weeks settling period at 0-6°C.

The resulting enzyme is obtd. in higher yield. It has improved purity and specific activity. The allergic reaction is reduced due to reduced amts. of protein impurities.

Levitskii, A.P., Marusich, V.A. Bul. 34/15.9.78. 30.9.76. as 408813 (2pp938)

YALO= ★ D16 50572B/27 ★SU -623-745

Fruit and berries press cylinder - made of individual rings of trapezoidal cross/section, with sharp and blunt edges forming gaps for juice to run out

YALOVENY AGRIC IND 09.12.75-SU-199341

P71 (01.08.78) B30b-09 B30b-15/04 C12g-01/02

Perforated cylinder for fruits berries press and run-off, for collecting the juice squeezed out of the pulp, e.g. in wine-making is made from turns of rod-like material, between which gaps are formed to allow the liquid to run through. The quality of the pressed-out juice is increased, together with the productivity of the press, and the installation and operation of the press are facilitated, by making the turns as individual closed rings with trapezoidal cross-section with blunt and sharp edges on the larger bases, which form the internal surface of the cylinder. The slits form as the sharp edge of each foregoing ring overlaps the blunt edge embedded in the following ring, according to the direction in which the squeezing

Krolenko, V.F., Kozub, G.I., Khachaturyan, R.P. et al. Bul. 34/15.9.78. 9.12.75. as 199341 (3pp29)

KHOR/ ★ D16 50614B/27 ★SU -623-863
Fermenter foam breaker - has foam feeding pipe with ejector connected to sterile compressed air source
KHOROLSKII V B 13.10.76-SU-410448
(04.08.78) C12b-01/18

Efficient foam breaking in sterile conditions for fermenters is ensured by an ejector in the foam feeding pipe. The ejector nozzle is connected to the source of sterile compressed air, and the diameter of the pipe in the ejector upstream is greater than in the downstream. The section of the pipe between the ejector and the nozzle in the tank of the foam breaker is used for disintegrating the foam. The defoamed fluid is returned to the fermenter by the ejector fed with sterile compressed air, the flow controlled by a valve to match fluid level in the tank.
Khorolskii, V.B., Padalko, V.G., and Shemetov, S.D. Bul. 34/15.9.78. 13.10.76. as 410448 (3pp89)

FERM= ★ D16 50615B/27 ★SU -623-864
Aq. nutrient for culturing Aspergillus awamori-22 fungal strain - includes maize flour, molasses, ammonium nitrate, zinc and magnesium sulphate(s), used as acid phosphatase producer
FERMENTATION PROD 28.02.77-SU-456959
(04.08.78) C12b-03/04

Nutrient medium for culturing fungal strain Aspergillus awamori-22, a producer of acid phosphotase, comprises (by wt.): 1-2% maize flow 0.5-1.5% molasses, 0.4-0.5% NH_4NO_3, 0.05-0.06% $MgSO_4$, 0.001-0.015% $ZnSO_4$ and balance water.

The use of maize flow and molasses produces a good yield of ferment in a quicker time and at a lower cost than prior nutrients.
Yarovenko, V.L., Rodzevich, V.I., Pisareva, M.S. et al. Bul. 34/15.9.78. 28.2.77. as 456959 (4pp314)

LEEP= ★ D16 50617B/27 ★SU -623-866
Entero-toxicity of Escherichia coli bacteria determination - includes administering to starved mice and measuring average small intestine dilation and percentage of animals giving positive reaction
LENGD EPIDEMIOLOGY 13.01.77-SU-445121
(04.08.78) C12k-01

The enterotoxicity of Escherichia coli bacteria is determined by administering live, one-day culture broths to starved mice through the anus. The animals are then opened and the average dilation of the small intestine measured, together with the percentage of animals showing a positive reaction and the frequency of destruction.

The method enables the enterotoxicity to be measured in a more accurate and quicker manner.
Smirnova, L.A., Avdeeva, T.A., Efremov, V.E. Bul. 34/15.9.78. 13.1.77. as 445121 (2pp314)

PRCE= ★ D16 50618B/27 ★SU -623-867
Yeast strain Candida Utilis TM-34 - cultured on paper pulp mfg. cellulosic waste, used in feedstuff protein supplement prodn.
PERM CELLULOSE PAPE 03.02.77-SU-450121
C03 (D13) (04.08.78) C12c-11/18 C12k-01/02

On a 1-day malt wort, two types of candida utilis TH-34 cells appear: spherical and extended oval, the respective dimensions being 7.42-10.58μ and (8.84-9.76) - (4.88.-5.32μ). After 1 month at 20°C on a malt wort-agar growths form, which are pale cream, lustrous and paste-like with a convexed centre and a flat, slightly curly rim.

The strain ferments glucose and saccharose and assimilates glucose, galactose, maltose, saccharose, fructose, xylose, arabinose and, weakly, lactose. It also assimilates mannitol, sorbitol, glycerin and ethanol N sources assimilated include urea, peptone and nitrates. It has no pathogenic activity towards animals or humans.
Nikolaeva, N.D., Zhukova, G.M., Ashikhmina, G.P. Bul. 34/15.9.78. 3.2.77. as 450121 (3pp314)

ROAN= ★ D16 50619B/27 ★SU -623-
Synthetic medium for culturing plague microbes - includes glycine, cyclic adenosine-3,5 mono:phosphate and potassi gluconate
ROST ANTI-PLAGUE 31.05.77-SU-480701
(04.08.78) C21k-01/06

Synthetic medium for culturing plague microbes compri es (in g/l): 4.7-4.9g. Na_2HPO_4, 4.5-4.8g KH_2PO_4, 1.0-1.2g Na_2SO_3, 1.0-1.2g. $(NH_4)_2SO_4$, 0.25-0.27g. $MgSO_4.xH_2O$, 4.0-4.5g K gluconate, 0.010-0.012g, DL-methionine, 0.010-0.012g. DL-β-phenyl-α-alanine, 0.010-0.0 g. DL-glycine, 0.08-0.09g. cyclic adenosine-3',5'-monophosphate, and water to 1l.

The medium intensifies the microbial growth process and produces bacteria with high viability. The pH of the medium is pref. 7.2.
Kagramanov, V.S., Rublev, B.D., Golubinskii, E.P. et al. Bul. 34/15.9.78. 31.5.77. as 480701 (2pp314).

FOOT= ★ D16 50620B/27 ★SU -623-8
Soln. for disaggregating kidney tissue cells - contains trypsin a collagenase
FOOT-MOUTH DISEASE 12.10.76-SU-411511
(03.08.78) C12k-09

Kidney tissue is diaaggregated by treating with a soln. o 0.05-0.25% trypsin and 0.005-0.01% collagenase.

The soln. is administered to the kidney through its vascular system.

The treatment provides a high yield of viable cells from the tissue.
Malysheva, K.M., Khomyakova, N.D., Prokhorov, V. Bul. 34/15.9.78. 12.10.76. as 411511 (2pp314)

KISA- ★ D16 B/27 ★SW 7712-8
Recovery of biologically generated energy from pile of organ fibre - by pumping air at individually controlled rates along multip paths within pile, and recirculating air through heat exchanger
KISA TRA AB 15.11.77-SW-012869
F09 (18.06.79) D21c-01

At a number of levels within a pile of fibrous organic mat air is blown into the pile at points evenly distributed over a horizontal cross-section through the pile. Air is sucke out of the pile at a second set of points spaced from the first points. The temp. of the withdrawn air is measured for each point of the second set, and the individual temp. measurements are used to control the injection of air at the corresp. points of the first set.

Moisture and heat are extracted from the withdrawn ai At least part of the resulting cool dry air is returned for injection into the pile. 15.11.77 as 012869 (-pp1407)

DIEM- D16 67351A/38 =US 4158-33
Must press consisting of perforated cylinder and inlet funnel - wit first sieve before cylinder and second sieve after cylinder, th sieves being concentric with the cylinder
DIEMME SPA 07.03.77-IT-046830
*P71 +Q65 (19.06.79) *DT2809-764 B30b-09/06*

A demuster press comprises two coaxial perforated cylin ders with one forming a smaller diameter extension of th other, and a cylindrical pressing piston in the smaller cylinder with a skirt extending into the larger. An annular demusting piston is in the larger cylinder between skirt and wall and is movable towards the smaller to demust th material.

The pressing piston can move from the smaller cylinde so that the demusting piston forces material into it from the larger, and can then move to compress material in th smaller cylinder. The cylinders are pref. joined by a pe forated conical section. 1.3.78 as 882164 (6pp1358)

PRZE- D16 43208A/24 =US 4158-60
Enzymatic compsns.
INST PRZEMYSLU MLEC 19.10.76-PO-193146
*(19.06.79) *J53050-364 A23c-19/02 +C07g-07/02*

A enzyme prepn. for the ripening of milk protein prods. i prepd., contg. a mixt. of purified intracellular fungal protease from penicillium candidum and proteolytic enzymes obtd. by autolysis of lactic acid bacteria cells.

Prepn. contains 1 wt. part of dry powdered fungal prot ease having activity of 5000 units per gm; and 3 wt. parts of dry proteolytic enzyme from lactic acid streptococci.

g an activity of 70 units per gram, or from lactic acid
i having activity of 140 units per gram.
dition of prepn. to milk permits shortening by half
eriod of time required for the ripening of cheeses.
. has good taste and more plastic consistency. 4.10.77
9507 (2pp931)

D16 79351X/43 =US 4158-608
omycin from streptomycin tendae - for protection of plants
st bacterial and esp. fungal disease
AYER AG 20.08.75-DT-537028
*02 (19.06.79) *BE-840-470 C12d-09/14*

on. of the antibiotic Nikkomycin (I) comprises culturing
ptomyces tendae Ettlinger et al Tii 901 in an aq. med-
contg. sources of C, O, N and H under aerobic condit-
at 18-37° C at pH 5.5-8 and isolating (I) by filtering
culture, passing filtrate through a cation exchange re-
eluting the column and collecting the eluate.

) is a fungicide esp. effective against rust diseases on
plants. 7.4.77 as 785729 Div. ex. 4046881 (+24.3.76
-669780) (7pp982)

L/ ★ D16 50766B/27 ★US 4158-609
inuous enzymic conversion of materials - by recycling of
mes sepd. as retentate by ultrafiltration
AULLER H 23.09.75-CH-012350
(19.06.79) C12b-01

Continuous enzymatic conversion of materials (I) is as follows: (a) a soln. contg. (I) and an enzyme (II) is continuously passed through several series-connected reaction zones in which (I) is continuously converted by (II); (b) the prod. from each reaction zone is continuously passed through an ultrafiltration zone (to separate (II) as the retenate) before it is passed to the next reaction zone; (c) sepd. (II) from each filtration zone is continuously recycled to the reaction zone it came from; (d) the prod. is continuously collected from the filtrate from the last of the filtration zones, while partly spent (II) is passed back from each reaction zone to the next proceding zone.

The reaction zones and filtration zones form a closed circulation circuit, and fresh (I) is continuously passed to the 1st reaction zone, and fresh (II) is continuously passed to the last reaction zone so that (I) and (II) are in countercurrent flow.

Process gives high rates of conversion of (I) with simultaneous retention of (II), and is suitable for use on an industrial scale. Typical suitable processes include the degradation of polysacchandes to mono- and di-saccharides, or disaccharides to monosaccharides; and the isomerization of mols. 29.12.77 as 865621 (+19.9.76-US-723882) (6pp478)

See Also
D15 J5 4065169 D15 J5 4066270 D17 DT 2855822
D17 GB 1548078 D17 J7 9014679 D17 SU 623525
D25 DT 2758022

D17: SUGAR; STARCH

FS D17 30487U/22 =DS 2155-941
id laundry care agent - is glutinised (hydroxy) alkylated
ternary cationic starch solution
HOFFMANNS STARKEFAB 10.11.71-DT-155941
*A97 F06 (A11 D25) (28.06.79) *DT2155-941 D06m-15/04*
+C08b-31/12

aternary cationic starch ethers are prepd. contg. 0.1-
% nitrogen and 3-10% nonionic substits. Ungelatinised
rch is reacted first with a reactive quaternary ammoni-
cpd., pref. glycidyl trimethyl ammonium chloride
then with a nonionic (hydroxy)-alkylating agent, pref.
ylene and/or propylene oxide.

The starch derivs. are useful constituents of liquid
nditioning agents for use after washing. 10.11.71 as
5941 (6pp68)

SW D17 36109X/20 =DS 2450-552
ntrifugal drum for continuously operating sugar centrifuge - has
ical mantle fixed to hub of drum at base and lower flange
tion
MASCH WOLF B R 24.10.74-DT-450552
*P41 (28.06.79) *DT2450-552 B04b-07/08*

e drum of a continuously working sieve centrifuge con-
sts of a stress free formed conical jacket with an inward-
directed floor flange at its narrow end and an outwardly
rected head flange at the wider end. The jacket is mount-
at the lower end on a boss which is designed so that the
rizontal part of the flange corresponds to the flat bed of
e boss and the lower conical wall section lies against an
turned conical section of the boss. The drum is bolted
the boss by means of bolts passing through the floor of
e drum.

The arrangement enables the jacket to be fastened to
e centrifuge shaft without causing additional stress or
stortion so that the drum runs true at high speed. The
ntrifuge is primarily for the sugar industry. 24.10.74
s 450552 (4pp1370)

BI/ ★ D17 49268B/27 ★DT 2757-630
ticle printing method - comprises transferring print through colour
lvent from paper to article
ALBIEZ E 23.12.77-DT-757630
G05 P79 (28.06.79) B44c-01/16

Colour or black/white prints are produced on articles, esp. those made of leather or wood, by producing a printing plate with the original and transferring the print to a flexible carrier (granulated art paper). The article is wetted with a colour solvent and the printed side of the paper is applied to it. Pressure transfers the print to the article.

This eliminates all difficulties with the instability and merging of colours. In the case of leather, it neutralizes the migration of tannic acid and ensures excellent durability.

Complex pictures can be transferred satisfactorily.

Pref. the printing plate is made by the offset printing method. The pref. print carrier is a granulated art paper. The colour solvent is a two-component mixt. of one part of a colour solvent without oil with four parts by wt. of a colour solvent with oil. 23.12.77 as 757630 (9pp39)

NISC ★ D17 49436B/27 ★DT 2855-822
Removal of calcium oxalate encrustations - from evaporator surfaces using an aluminium salt acid aq. soln.
NISSAN CHEM IND KK 22.03.78-JA-032529 (27.12.77-JA-156384)
E12 F09 M12 (D16) (28.06.79) C11d-07/60 C23f-14/02 C23g-01/02 D21h-03/22

Ca oxalate contg. encrustations on internal walls of evaporators are removed by treating with an aq. soln. which contains (1) Al- and/or Fe (III) ions, (2) anions of one or several acids of the group hydrochloric-, nitric-, sulphamic-, formic-, malonic-, malic-, lactic-, tartaric-, lactic-, citric-, acetic-, propionic- oxalic- or glycolic acid. For the removal of encrustations formed in evaporators used for the concn. of liquors in the production of sulphite slurries or in chemical-grounding or semi-chem. processes.

The aq. solns. are easy to prepare and do not cause pollution problems. Used for treating evaporator surfaces with encrustations contg. Ca oxalate, e.g. surfaces which come into contact with syrup extracts in the prodn. of molasses, syrup contg. lime or its filtrate, a concn. filtrate or a mother liquor of sugar crystallisation in processing cane and beet sugar. Also for the removal of encrustations formed in fermentation vessels holding grape juice and those formed in the hypochlorite bleaching stage in paper manufacture. 22.12.78 as 855822 (20pp095)

TATL D17 51675A/29 =GB 1548-078
Polysaccharide(s) prepd. by culture of Azotobacter vinelandii - adding a proteolytic enzyme to prevent viscosity fall
TATE & LYLE LTD 14.03.77-GB-010695
*(D16) (04.07.79) *BE-864-823 C12d-13/04*

A polysaccharide is produced by culturing a polysaccharide-producing strain of Azotobacter vinelandii in a nutrient medium. The soln. viscosity of the polysaccharide produced is controlled by incorporating in the culture broth, during and/or after the culture, but before the isolation of prod., a proteolytic enzyme having activity at the pH of the broth.

Pref. the enzyme is used at a level of 0.005-0.5 Anson units per l. of broth. Culture is performed in a fermenter, the polysaccharide-contg. culture broth being withdrawn. Culture is performed as a continuous fermentation. Pref. pH of culture is 7.4.

Esp. used to produce a microbial alginate of controlled viscosity. 28.2.78. (6pp931)

ROSS/ ★ D17 B/27 ★IT 1030-505
Starch elimination from sorghum juice
ROSS C 04.11.66-US-592685
(10.04.79) C13g 3.11.76 as 022351

RHON D17 80952V/47 =J7 9014-679
Non-fibrous free flowing polysaccharide powder - by alcohol pptn from a ferment and washing with a predetermined amt of solvent
RHONE-POULENC SA 04.05.73-FR-016148
*(D16) (08.06.79) *BE-814-555 C12d-13/04*

The polysaccharides are produced from a wort fermented by microorganisms such as Xanthomonas (campestris) or Arthobacter (viscosus) by (1) pptg. polysaccharide fibres by addn. of a low. mol. wt. alcohol (I) e.g. methanol, ethan-ol, isopropanol, p-butanol or mixts. and/or a non-alcoholic organic liq. e.g. acetone, (2) sepg. the ppte., (3) was washing the fibrous with aq. washing liq. contg. y-z% excess of washing agent (also (I)) the amt. corresp. to the solubility limit of fibrous in the liq. (where y is % excess corresp. to the solubility limit below which the fibres when washed once are soft, difficult to fry, and stick together and z% excess corresp. to the limit above which the dried ground prod. is fibrous), (4) drying and grinding.

When (I) is isopropanol, y % is 8%, z% is 25% when (I) is t-butanol, y% is 9% and z% is 28%. Washing temp. is 0-50 (25-35)°C and time is 3 mins. to 1 hr. The powder avoids problems to transport, handling, clogging in sieves dustiness etc. which are characteristic of fibrous particles 2.5.74 as 048910 (clg. 4.5.73-FR-016148) C12d-13/04 (8.6.79) RHONE-POULENC SA (5pp) (J5 0013591)

KIFO= ★ D17 50324B/27 ★SU -622-839
Sugar prodn. diffuser - has parallel augers with interconnected hollow brackets, and shafts for steam heating
KIEV FOOD TECHN 05.01.77-SU-441036
(03.08.78) C13d-01/10

Uniform heating and intensified extraction in the diffuser of sugar prodn. line are achieved by using hollow brackets to support the augers. Chambers are provided for feeding steam into the hollow shafts, which are connected to the brackets, as well as for draining condensate.

The two hollow shafts and brackets form rotary heating chambers ensuring thorough heating of cossettes fed from hopper by the two parallel augers. The extracting fluid flows in countercurrent to the cossettes. The juice passes through a mesh band while the pressed out pulp is discharged at the bottom of the diffuser.

The admission of steam through the hollow shafts increases the area of heating, and process of extraction is intensified by faster rates of beet protoplasm denaturation.

Pushnko, N.N., Kovalenko, B.D., Datsenko, N.M. Bul 33/5.9.78. 5.1.77. as 441036 (5pp89)

NAAR D17 56705V/32 =SU -623-525
Fructose-contg. syrup prodn. from starch - using an enzyme complex with combined glucoamylase and glucose-isomerase activity
NAARDEN INT NV 30.01.73-HU-GO1229
*E13 (D16) (09.08.78) *BE-809-785 C13k-11*

Carbohydrate solns. contg. fructose are produced dire
ly from starch or starch-contg. materials by (a) gelati
ising the starch; (b) liquifying the gelatinised starch (p
with α-amylase; and (c) simultaneously saccharifying t
liquified starch to glucose and isomerising the glucose
to fructose using an enzyme complex with glucoamylas
and glucose-isomerase activity (esp. at 60-70° and pH
6.0-6.5), the complex being used in an amt. sufficient
for the reqd. degree of conversion (pref. 75-350 AGU
3500-12,000 GIU).

The α-amylase can also be incorporated in the enzy
complex (pref. in an amt. of 400,000-1,000,000 MWU)
The total reaction time can be cut by practically a half.
Bolgar, P., Yukhas, T., Tot, Y., et al. Bul.
33/5.9.78. 30.1.74. as 993451 (5pp)

LEFO= ★ D17 50616B/27 ★SU -623-
Neutraliser for citric acid mfr. - has an additional citrate suspens
holding tank mounted beneath mixer of fermented soln. and r
of lime
LENGD FOOD IND RES (LERE=) 06.01.77-SU-441324
(04.08.78) C12d-01/04

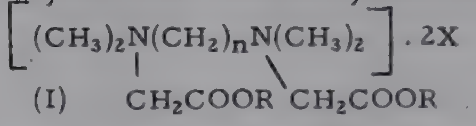
Intensified neutralisation of purified fermented solution
of citric acid is due to the additional tank for holding th
citrate suspension. The tank is mounted beneath the
mixer of the fermented soln. and milk of time, and it i
of similar design to that of the main tank. It features a
overflow pipe connecting both vessels for holding the
citrate suspension.

The mixer has overflow pipes with openings, and its
stirrer includes a rotor forming a hydraulic seal togeth
with the overflow pipes. Each tank includes an airlift
for the citrate suspension, the overflow pipes of the mi
er carry glass transducers of the pH meter to control
the degree of neutralisation.

Khrychev, G.A., Kalichinskaya, Z.F., Metkin, V.P.
al. Bul. 34/15.9.78. 6.1.77. as 441324 (4pp89)

AUCO= ★ D17 50621B/27 ★SU -623-
Purificn. of beet sugar solns. - includes addn. of di:quatern
ammonium salt derived from ethylene and hexa:methyle
di:amine before filtration
AS UKR COLLOID CHEM 19.05.76-SU-365929
E16 (04.08.78) C13d-03

Sugar solns. are purified by treatment with a deriv. of
ethylene and hexamethylene-diamine having a formula (



$$\left[\underset{\textstyle CH_2COOR}{(CH_3)_2N}(CH_2)_n\underset{\textstyle CH_2COOR}{N(CH_3)_2}\right].2X \quad (I)$$

where n = 2 or 6; R is 1-
18C alkyl; and X is halid
or sulphate radical.

The agent is used in a
amt. 0.001-0.005 wt.% on soln. wt. The treated soln.
then filtered through a layer of e.g., perlite or diatomi

Use of the above agent provides a high degree of puri
ficn. and increases the rate of filtration.

Bazhal, I.G., Dyachenko, N.S., Ivanyuk, A.A. et al.
Bul. 34/15.9.78. 19.5.76. as 365929 (4pp314)

BRBL D17 10380B/06 =US 4158-
Coned basket for continuous centrifuge partic. for sugar prodn. -
multi-segmental liner screen secured by sandwiched exter
flange
BRAUNSCHWEIG MASCH 05.05.77-DT-U14228
*P41 (19.06.79) *FR2389-416 C13f-01/10 +B01d-21/26 B01d*
B04b-01

A conical basket for a continuously operating sugar cent
fuge comprises two axial sections each with radial outw
connecting flanges, and an inner screen with a small en
outward collar forming an angle less than 90° with the
screen and clamped between two adjacent section flange

The sections pref. have different wall slopes, and th
collar has radial notches opening outwardly and with rou
ded apertures at the inner ends. The arrangement allo
the screen to be attached without using large basket wal
areas, and facilitates rapid screen replacement. 10.3.
as 885327 (4pp1358)

D18: SKINS; HIDES; LEATHER; TOBACCO

V- ★ D18 49248B/27 ★DT 2757-257
inuous leather drying press - with back-up rolls around pressure ion on central roll and perforated carrier belts
CHWEIZER L GMBH 22.12.77-DT-757257
(28.06.79) C14b-01/34

ontinuous press for the drying out of leather moves the erial, enclosed between conveyor belts, through the s between a pressure roll and back-up rolls. The pres- e roll is enclosed in an elastic hose which forms with pressure cushion. The conveyor belts are perforated, f. made of plastics.

The arrangement results in a gentle treatment of the her and in a high dewatering efficiency which is main- ed for long working periods. Costs for maintenance or lacement of belt conveyors are negligible. 22. 12. 77 as 257 (18pp39)

SS ★ D18 49263B/27 ★DT 2757-582
mpsn. for treating cellulosic textiles and leather - to improve feel d water resistance, contains alkyl-substd. methylol-urea and ulsifier
CASSELLA FARB MAINK AG 23.12.77-DT-757582
A87 E19 F06 (28.06.79) C14c-09 D06m-13/40 D06p-05

nishing and water-proofing compsn. for textiles consist ng of (or contg. cellulose) and for leather comprises (i) -35 (10-25) wt. % of a urea deriv. RNH. CO. $N(H)_n(CH_2$- H$)_m$ (I) (R = 14-22C opt. branched alk(en)yl; m = 1-1. 5; = 2-m); (ii) b wt. % nonionic emulsifier; (iii)c wt. % anionic nulsifier (b = 0-10; c = 0-3; b + c = 0. 5-10); (iv) 0-5 wt. epoxide R' (II) (R' = 15-40C alk(en)yl); (v) 0-25% t liquor and (vi) 25-89. 5 (40-89) wt. % water water-miscible solvent.

Pref. the anionic emulsifier has formula $\text{-}(OCH_2CHR_4)_qOH$ (III) (A = 10-22C linear alk(en)yl or kylphenyl with total of 6-12C in alkyl gps. ; q = 8-14; $_4$ = H or 1-2C alkyl). Esp. b is 0-5 and c = 0-3 with b + = 1-5.

The material is made hydrophobic and has improved andle; these effects being resistant to cleaning. Many different types of leather can be treated and the compsns. ave good stability on storage and in aq. baths. 23. 12. 77 s 757582 (46pp1251)

HEY/ ★ D18 49323B/27 ★DT 2758-135
eather hide depositing mechanism on frame - has two conveyor elts swinging together and forming a gap between them
VON DER HEYDE G 27.12.77-DT-758135
Q36 (28.06.79) B65h-29/36

he mechanism continuously deposits flat items such as eather hides on a supporting frame, these being delivered hrough the gap between a pair of feed conveyor belts, the utlet end of the gap being above the frame.

At the outlet end of this gap are two conveyor belts orming a gap between them and discharging the hides, and which swing together. The length in the transport direction f these two belts can be less than the distance between the lischarge end of the feed conveyor belts and the apex of he supporting frame. 27. 12. 77 as 758135 (7pp160)

OHG D18 65497A/37 =GB 1548-140
Dissolving collagen-contg. waste of leather mfr. - by enzymatic ydrolysis with acid proteinase(s) under acid conditions
ROHM GMBH 02.03.77-DT-709035
*(D15) (04.07.79) *DT2709-035 +C07g-17*

Collagen-contg. hide or leather materials are subjected to enzymatic hydrolysis by treating the material with ≥1 proteolytic enzyme having an optimum enzymatic activity at pH < 7. Treatment is carried out in an aq. medium at pH to ensure ≥ partial decompsn. of treated material. Pref. enzyme has an optimum activity in the pH range 3-6, and is derived from Aspergillus oryzae, A. Saitoi and A. parasiticus. Enzyme is employed in amt. of 0. 01-5wt. % w.r.t. hide or leather to be treated.

Esp. used for treating skin cuttings, hide splits, mach- fleshings from leather mfr., which on treatment are

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1.3.78 as 008126. (4pp931)

FURF= ★ D18 50325B/27 ★SU -622-840
Unit for turning fur-skins inside out - has a headpiece articulated to outside pipe for clamping hind legs and tail
FUR FARMING RABBIT 18.03.77-SU-464446
P22 (22.07.78) A43d-85 C14b-15

Elimination of tear and of incomplete turning out of fur skins as well as improved work conditions are ensured by the head-piece articulated to the outside pipe of the unit. The turning out of fur skins taken out by furring out is made by first tilting over the tip.

The skin is fed with the head part into the inner pipe while the hind legs and tail are turned over the main pipe and then pressed by the head-piece. Compressed air fed into the clearance between the pipes forms a ring jet and turns out the skin. The process is controlled by a valve.

Kovinya, P.N., Shevelev, I.D., and Shienok, F.M. Bul. 33/5.9.78. 18.3.77. as 464446 (2pp89)

ORLO= ★ D18 50326B/27 ★SU -622-841
Animal skins treating unit presser roller control - has a throttle between servo rod end chamber and mineral fluid tank
ORLOVO LIGHT MACH 04.01.76-SU-309168
(22.08.78) C14b-17

Simplified pressing roller assembly in machines for the mechanical treatment of skins and also elastic sheet materials, as well as enhanced reliability, are due to feedback linkage. The pressing roller is advanced by the pneumohydraulic servo whose rod end chamber is connected to the tank holding a mineral fluid via a throttle.

The working chamber of the servo is connected to the valve held by the servohousing and connected to the control pedal by a rod. The clearance between the working and pressing rollers is set by a coupler, and depression of the pedal raises the positive overlap valve connecting the working chamber with the compressed air source. The difference in areas of the chambers determines the advance of the pressing roller, while valve overlap controls the response.

Bakanov, N.I., Belskii, P.V., and Seregina, M.I. Bul. 33/5.9.78. 4.1.77. as 309168 (3pp89)

AAZB= ★ D18 50327B/27 ★SU -622-842
Extn. of tanning substances from pomegranate rind - includes five-stage thermal treatment with water, followed by concentration and refining
AS AZERB BOTANICAL 19.05.76-SU-361457
(22.08.78) C14c-03

Tanning substance can be obtained from vegetable materials by extraction of the diffusion juice at gradually increased temp., with subsequent concentration of the extract under vacuum, refining, filtration and concentration of the filtrate under vacuum.

This method is now adapted to extracting tanning substances from noncomminuted pomegranate rind by five-fold extraction of the diffusion juice pref. with temp. increased from 45-50° to 80-85°C at a ratio rind: water equal to 1:6. The aq. extract is then concentrated pref. under vacuum (40-50 mm. Hg) to a solids content of 18-20%. Subsequently, the extract is refined with equal volume of technical ethyl alcohol. After filtration, the filtrate is concentrated pref. at 60-70°C (60-70 mm Hg) to a solids content of 30-40%. By this method, the pomegranate rind can be utilised for tanning (this was impossible by the conventional method.

Nasacheva, E.P., Abutalybov, M.G., Ismailov, N.M. et al. Bul. 33/5.9.78. 19.5.76. as 361457 (4pp70)

LEAT= ★ D18 50328B/27 ★SU -622-843
Compsn. for finishing low grade and waste leather - contg. per:chloro-vinyl resin, nitrile rubber, disperse or acetone soluble dye and organic solvent
LEATHER HABERDASHER 14.01.77-SU-444157
A97 G02 (24.07.78) C14c-11

Compsn. for finishing leather wastes e.g. non-coloured trimmings, contg. a perchlorovinyl resin and a dye, is improved by addn. of a nitrile rubber and an organic solvent, whereby a lac. with a toning effect is produced.

Thecompsn. contains (in g/l) a perchlorovinyl resin 75-90, a nitrile rubber 10-25, and a dye 1-13, in an organic solvent.

The dye is pref. an acetone-soluble dye or a disperse dye.
Andreev, V.P., Dolzhenkova, A.G., Nikolaeva, Za. B. et al. Bul. 33/5.9.78. 14.1.77. as 444157 (2pp70)

FURI= ★ D18 50329B/27 ★SU-622-844
Compsn. for frost-resisting finishing pelt skins - contg. butadiene latex, carboxylate butadiene latex, silicone emulsion and dye
FUR IND RES INST 10.02.77-SU-451601
A97 G02 (21.07.78) C14c-11

Compsn. for finishing the skin of a pelt contains a synthetic latex, a silicone emulsion and a dye.

The frost resistance of the product is improved by using a compsn. contg. (in pts. wt.) butadiene latex with a proteinaceous emulsifier 10-70, carboxylate butadiene latex with an anionic or non-ionic emulsifier 10-70, a silicone emulsion of soln. 5-20, and a dye 10-15.
Sergeev, N.V., Anpilogova, A.A., Iossa, T.Yu. et al. Bul. 33/5.9.78. 10.2.77. as 451601 (2pp70)

ORLO/ ★ D18 50723B/27 ★US 4158-543
Cleaner for grain and suede leather - comprising a rubber (co)polymer, solvent plasticiser and filler
ORLOWSKI J A 03.02.78-US-874766
A84 P43 (A12 A17) (19.06.79) B08b-03 C14c-11

An article for cleaning grain or suede leather comprises 20-60% of a rubber, which is a homo- or copolymer of monomers having at least 4C and 2 double bonds and isobutylene; 10-50% of a solvent/plasticiser of b. pt. ≮120°C, and 10-50% finely divided inorganic filler.

The article is simply rubbed on the area to be cleaned. It does not damage the leather, leave marks or cause loss of flexibility or 'hand'. 3.2.78 as 874766 (8pp955)

MASI ★ D18 50848B/27 ★US 415
Charge flow sensor - for detecting many properties e.g. g radiation, subatomic particles etc. of environment, smouldering fires
MASSACHUSETTS INST TECH 25.04.77-US-790631
A85 J04 L03 R16 R46 (19.06.79) G01n-27 H01l-29/78

The instrument comprises (a) a charge flow FET havi gapped gate electrode, (b) a thin film sensor material the gap, electrically contacting the fingers, (c) contact source, drain and gate electrodes and (d) insulators ins ating contacts from the substrate and each other. The sensor has an electrical conductance sensitive to a pro erty of the ambient in which the transistor is located a has a surface conductance different from its bulk condu ance. An electrical monitor is connected to the transis to sense surface conductance changes and relate these the property to be detected.

A specific sensor detecting smouldering fire, includ smouldering cotton, wool, PVC, polyurethane plastic or acrylic fibres, but insensive to ambient humidity variations, has a thin film sensor of poly(Schiff's base) or po (imidazole).

The sensed property is the presence of gas(es), vapour(s), combustion prods., free radicals, water vapour, electromagnetic radiation, subatomic particles, atomic molecular beams, changes in ambient temp. or press, chemical compsn. or electrochemical potential of a soln Advantages include low cost, low voltage/current operation, simple instrumentation, no electrical shielding req irement, continuous monitoring and ability to monitor a compensate for long term drifts in device parmeters.
25.4.77 as 790631 (20pp091)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

A ★ D21 48993B/27 ★BE -873-132

netic for removing make/up from the eyes - comprises ester(s) olyethoxylated alpha methyl glucoside(s) and/or aliphatic oxylic acids aq. soln and a preservative

OREAL SA 30.12.77-FR-039840

96 E19 (A25) (28.06.79) A61k

compsn. comprises an aq. soln. contg. (a) at least surfactant selected from mono and di-esters of poly- oxylated α-methylglucosides with 11-21C aliphatic boxylic acids and mixts. of these and (b) at least one servative.

The pref. esters are laurates, palmitates, stearates oleates of α-methyl glucoside 10-30 times ethoxylated . a mixt. (I) of mono- and di-stearates of a 20 times oxylated α-methylglucoside. Specified for (b) include ium ethyl mercurithiosalicylate; chlorhexiotine diglu- ate, diacetate or di-hydrochloride; phenylmercuri nitr- ; a 30/70 sodium benzoate/chloroacetamide mixt. etc.

The compsns. are non-irritant and are stable to storage 12.78 as 873132 (8pp597)

MM/ ★ D21 49240B/27 ★DT 2757-024

ir and skin cosmetics - contg. 11-alpha-hydroxy-progesterone

TAMM J 21.12.77-DT-757024

B01 E15 (28.06.79) A61k-07/06 A61k-37/38

smetic compsns. for hair and skin care contain 11α- droxyprogesterone (I) and/or its pharmaceutically ceptable esters, together with conventional additives.

The compsns. can be used to treat hair loss, excessive liness of the hair and scalp, acne vulgaris, etc. They ve no hormonal side-effects when applied topically.

The compsns. pref. contain 0.5-2.0 (esp. 0.8-1.4)wt. of (I) or 11α-acetoxy-progesterone. They can be form- ated as hair lotions or oils, skin creams, oils or emul- ons for application to the skin, shampoos, aerosol prays, etc. 21.12.77 as 757024 (13pp367)

KG ★ D21 49298B/27 ★DT 2757-937

in-care cosmetics - contg. calf's blood haemodialysate

BYK GULDEN LOMBERG 24.12.77-DT-757937

(28.06.79) A61k-07/48

osmetic compsns. for skin care contain a dialysate of efibrinated, haemolysed and deproteinated calf's blood). The compsns. counteract the effects of natural ageing, r pollution, dry air, unsuitable cosmetics and cleansers, ck of fresh air and light, weather, excessive exposure the sun, etc. They impart a fresh smooth appearance nd have no harmful side-effects.

(I) can be produced as described in DT 1076888, and is pt. treated to remove some or most of its inorganic salts. he compsns. can contain 0.1-10 (pref. 0.5-3) wt.% of (I) dry basis). They can be formulated as milks, creams, els, lotions or beauty masks. 24.12.77 as 757937 11pp367)

ARB ★ D21 49312B/27 ★DT 2758-019

repn. of beta-hydroxy ester of (meth)acrylic acid - using alicylamide deriv. as inhibitor, used e.g. as coatings and in entistry as binders

BAYER AG 24.12.77-DT-758019

A41 E17 G02 (A14 G03) (28.06.79) C07c-67/26 C07c-69/54

-Hydroxy esters of (meth)acrylic acid are prepd. by react ing (a) a cpd. with $\nless$ 1 1,2-epoxy gp., with (b) $\nless$ 1 mole f acrylic and/or methacrylic acid/1,2-epoxy gp. in pre- ence of (c) an addn. catalyst and (d) a salicyclic acid mide as polymerisation inhibitor. Unconverted (meth)- crylic acid is removed by washing with an aq. alkaline gent with pH < 10.

The esters are esp. used in dentistry, as binders, e.g. or compsns. for filling teeth, for filling cracks, as r as coatings for metals, paper, synthetics and wood, and as binders for printing inks. The esters are clear and very pure, and have good polymerisation properties. 24.12.77 as 758019 (10pp510)

ASAO D21 88587Y/50 =GB 1548-066

Apatite bodies for use as bone or tooth prostheses - sintered with addn. of calcium or magnesium orthophosphate to increase strength

ASAHI KOGAKU KOGYO 02.06.76-JA-064184

*L02 +P32 (04.07.79) *DT2724-972 C01b-25/32*

A sintered apatite body is prepd. comprising the prod. obtd. on moulding and sintering an apatite powder contg. 0.01-20wt.% of $(Ca,Mg)_3(PO_4)_2$. Prepn. is by calcining a mixed powder of 0-20wt.% of a calcium cpd., 0.01-20wt.% of a magnesium cpd., and 99.99-60wt.% of amorphous apatite. Pref. calcining is carried out in an inert gas, or in air at 400-1000°C for 0.1-2 hrs. Calcium cpd. is the hydroxide, carbonate or oxide. Magnesium cpd. is the sulphate, carbonate, hydroxide, oxide, $(Ca,Mg)_3(PO_4)_2$, $Mg_3(PO_4)_2$, $MgHPO_4$ or $Mg(H_2PO_4)_2$.

Esp. used in the prepn. of a prosthetic tooth or bone. 1.6.77 as 023080. (4pp931)

ROYA- ★ D21 49816B/27 ★J5 4064-640

Bath additive contg. squalane - and liq. paraffin or vegetable oil and polyoxyethylene sorbitol tetra:oleate as emulsifying agent

ROYAL YAKUHIN KK 01.11.77-JA-131083

A96 E17 (A25) (24.05.79) A61k-07/50

Bath tonic of high nutritive value comprises about 40% squalane, about 50% liq. paraffin or vegetable oil and about 10% of polyoxyethylene sorbitol tetraoleate as emulsifying agent and, as optional ingredient, flavours, dyestuff and bactericides. In a pref. embodiment, each 5g aliquot of the bath tonic is encased in a gelatin capsule.

The bath tonic activates or accelerates functions of subcutaneous tissues and is suitable for supplementing nutrients, preservation of health and medicament. 1.11.77 as 131083 (2pp140)

SHIS ★ D21 49819B/27 ★J5 4064-644

Red pigment for use in cosmetics - is prepd. by reacting rhodamine B and anionic pigment and adsorbing obtd. complex on clay

SHISEIDO KK 31.10.77-JA-130466

E24 (24.05.79) A61k-07

The red pigment is prepd. by reaction between rhodamine B (II) and an anionic pigment (III) and adsorption of the obtd complex on clay (IV). The cosmetic has a bright colour and a wide range of colours can be prepd.

(III) is e.g. lake red, acid red, sunset yellow FGF, orange, I, orange II, naphthol yellow S or quinoline yellow. (IV) is e.g. montmorillonite, kaolin or illite. When aq. solns. of (II) and (III) are mixed. the complex is obtd. as a ppte. 31.10.77 as 130466 (7pp42)

KOBE- ★ D21 49820B/27 ★J5 4064-645

Stable, gelled cosmetic compsns. contg. organic solvent - and aluminium iso:stearate and opt. metal soap of other fatty acid

KOBAYASHI KOSEI KK 31.10.77-JA-130632

E12 (E17) (24.05.79) A61k-07

Prodn. of stable cosmetics (I) contg. liq. organic solvent (II), comprises mixing, in (I), (1) aluminium isostearate (III) or (2) (III) and metal soap (IV) of other fatty acid. Stable gelled (I) can be produced. Gelled cosmetics produced by other known methods sometimes undergo syneresis and their qualities change easily. (I) produced by the present method undergoes hardly any syneresis.

As (II), liq. paraffin, squalane, branched hydrocarbon of low b.pt., hexadecyl alcohol, isopropyl myristate, octyl decanyl myristate, fatty acid glyceride and others are used. More than 0.5 wt.%, e.g. (1-10 wt.%), of (II) should be added in (I).

In an example, (I) was produced by mixing, at first, 35.0 g of liq. paraffin, 30.0 g of isopropyl myristate, 10.0 g of lanolin deriv., 2.0 g of sucrose fatty acid ester, 6.0 g of (III) and small amt. of perfume and then kneading the mixt. with 5.0 g talc, 7.0 g of titanium, 0.5 g of iron oxide red, 2.0 g of ferrous oxide and 0.5 g of ferric oxide. 3.10.77 as 130632 (4pp42)

LIOY ★ D21 49926B/27 ★J5 4065-711

Aq. shampoo compsn. - contains anionic alkali(ne earth) metal surfactant and an adduct of ethylene- or propylene oxide and cholesterol

LION FAT & OIL KK 07.11.77-JA-133224
A96 E19 (A25) (26.05.79) A61k-07/06 C11d-01/83

The compsn. is of pH 3-6.5 and consists of an alkali metal or alkaline earth metal anionic surfactant, an adduct of 5-120 moles ethylene oxide or propylene oxide to cholesterols and water.

The compsn. smarts only slightly in the eye, and inflicts only slight damage to the hair. It has been found by the inventors that the alkali metal type or alkali earth metal type anionic surface active agents smart quite slightly in the eye when it is used in combination which cholesterol cpd. at 3.0-6.5 pH. Moreover, the amt. of the amino acids dissolved out of the hairs is remarkably reduced and the foam generating property of the compsn. is satisfactory. On the other hand, anionic surface active agents of ammonium salt, amine salt, or alkanolamine salt type smart considerably.

Pref. anionic surfactant alkali(ne earth) metal salt of 3 mole ethoxysulphuric ester of naturally occurring lauryl alcohol, 3 mole ethoxysulphuric ester of 11-15C fatty alcohol prepd. by the Oxo process, or 1 mole ethoxysulphuric ester of 12-13C Oxo fatty alcohol, sulphuric ester of 12-13C fatty alcohol, etc.; the cholesterol cpds. is 5-120 mole adduct of ethylene oxide or propylene oxide to cholesterol or isocholesterol, which may be a mixt. of lanosterol and agnosterol. 7.11.77 as 133224 (6pp126)

LEAD- D21 29041X/16 =J7 9014-650

Base for cosmetic pack - comprising cellulose deriv, sodium polyacrylate, polyvinylalcohol and water

LEAD CHEM KK 27.08.74-JA-098250
*A96 (08.06.79) *J51026-217 A61k-09/06*

The base is a homogeneous mixt. of cellulose derivative (e.g. methyl cellulose), Na polyacrylate, polyvalent alco hol and water. The base has a content adhesive force being influenced by temp. and humidity. In an example, the base consists of 6.6 pts. sodium CMC. 1.7 pts. methyl cellul ose, 2 pts. sodium polyacrylate, 6.7 pts. of gelatine, 33.2 pts. of glycerine and 49.8 pts. water. 27.8.74 as 098250 A61k-9/06, 9/00 (8.6.79) LEAD CHEM KK (4pp) (J5 1026217)

ODST= ★ D21 50481B/27 ★SU -623-555

Bactericidal and antiinflammatory tooth-paste compsn. - contg. lysozyme, nonionic detergent, silica gel, polyethylene glycol, boric acid, dye, perfume, saccharin and water

ODESS STOMATOLOGY (MOSV=) 16.02.77-SU-453634
A96 B05 (A25) (03.08.78) A61k-07/28

Tooth-paste compsn. comprises (in wt.%): lysosyme (I) 0.04-0.1; Tween-40 (II) 1-4; silica gel 8-12; glycerol
25-35; polyethylene glycol 55-45; boric acid (III) 1-3;
perfume 0.5-0.1; dye 0.04-0.1; saccharin 0.1-0.2 an
water the rest.

The use of I, II and III improves bactericidal, anti-
inflammatory and cleansing characteristics of the toot
paste. The paste has also good foaming properties an
flavour and prevents tooth decay.
Levitskii, A.P., Tereshina, T.P., Varova, G.N. et
Bul. 34/15.9.78. 16.2.77. as 453634 (2pp938)

SHOF- D21 46461A/26 =US 415

**Fluorescent ceramic compsn. for use as false tooth - prep
dispersing fluorescent material contg. aluminate, aluminosilic
alumino:silica and europium in powdered ceramic material**

SHOFU DENTAL MFG (SHOF) 26.10.76-JA-128974
*L02 P32 (19.06.79) *J53054-893 A61c-13 C09k-11/46*

A fluorescent dental compsn. is prepd. contg. a porc
material for artificial teeth, a fluorescent substance
an activator, such that fluorescent substance is prese
$\leqslant$ 1 wt.% of porcelain material.

Porcelain material contains feldspar, lencite, alu
or syenite as the main material, and has a softening t
of 600-800°C and undergoes vitrification at 900-1300°
Fluorescent substance is an aluminium silicate, alkal
earth) metal aluminosilicate, alkali(ne earth) metal a
nate or their mixts., such that alkali metal is sodium
potassium and alkaline earth metal is magnesium, ca
barium or strontium. Activator is europium, or euro
plus cerium and/or ytterbium as auxiliary activator.
Europium (Eu_2O_3) is present to $\leqslant$ 4 wt.% w.r.t. fluor
ent substance. Molar content of alkali(ne earth) meta
oxide) present is $\geqslant$ 4 times the molar content of alu
present.

Compsn. exhibits fluorescence of the range violet
white to milky white blue when excited by UV radiatio
3650 Angstroms. 22.9.77 as 835659 (3pp931)

REVL ★ D21 50823B/27 ★US 415

**thioglycolate ester compsns. - for effecting the reducing s
permanent waving of hair**

REVLON INC 03.04.78-US-892744 (18.11.76-US-742770)
E17 (19.06.79) A61k-07/09

The reducing step in permanent waving is effected by
ing the hair with an aq. soln. (pH 6.4-8.3) contg. 18-
by wt. of a thioglycolic acid ester (I) (1-5C alkyl (and
hydroxy substd.), or glyceryl ester) for 1-35 min. at
130°F.

The exact treatment times and parameters are e.g
concn. (wt.%) 18-22; Soln. pH 5.4-7.0; Time (min) 3-
Temp (°F) 100-130.

Method eliminates the need for subjective judgeme
of the conditions needed for hair waving. The compsn.
be used on untreated hair, or on permed, bleached, o
dyed hair. Pref. aq. compsns. contain 18-30% by wt.
glyceryl thioglycolate, and opt. contain 0.5-2 by wt.
thioglycolic acid, a base (thiethanolamine etc.), perfu
colours, thickening agents, surfactants, and oils, etc
3.4.78 as 892744 (5pp478)

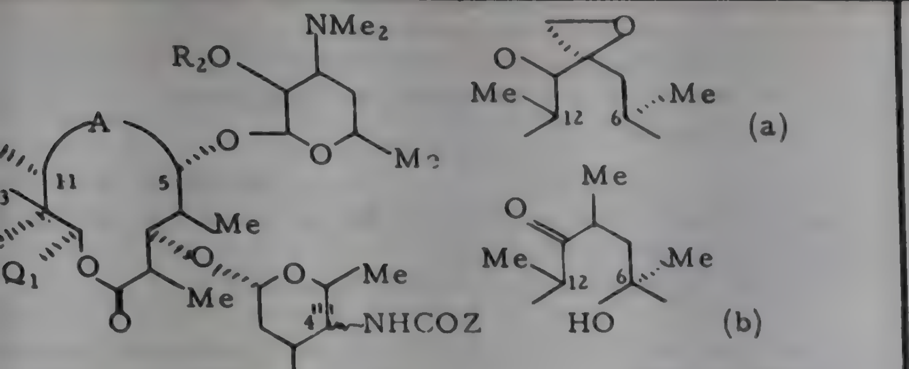
D22: BANDAGES; DRESSINGS

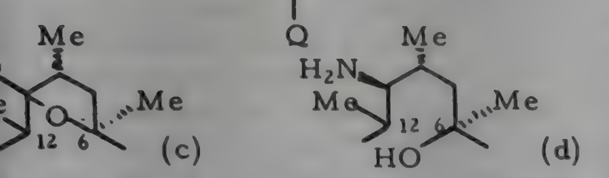
PFIZ ★ D22 49015B/27 ★BE -873-267

Antibacterial 4-de:oxy-4-acylamido macrolide cpds. - derived from oleandomycin, erythromycin carbonate) and erythromycyl-amine

PFIZER INC 29.08.78-US-937640 (03.01.78-US-866722)
B03 C02 E13 (D15) (02.07.79) A61k C07h

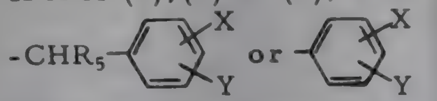
Macrolide antibiotic derivs. of formula (I) and their s
are new. In (I), A is a gp. of formula (a), (b), (c) or (d





Q is -OMe when A is (a), or (◄Me, OMe) when A is (b),(c) or (d);

s Me when A is (a) or Et when A is (b),(c) or (d); R_1 I or 2-3C alkanoyl when A is (a) or (b), 2-3 alkanoyl n A is (c) or H when A is (d). R_2 is H or 2-3C alkan- when A is (a),(b) or (c), or H when A is (d); R_3 is H or when A is (a),(b) or (c), or OH when A is (d); or R_1 and can together form -O-CO-O- if A is (a),(b) or (c); Z is $H_2)_m$-(C(Me)$_3$, -(CH_2)m-het,



is 0 or 1; R_5 is H, Cl, OH, Me, NH_2 or 1-4C alkoxy; X is Cl, Br, F, 1-4C alkyl or 1-4C alkoxy; Y is as X or CF_3 or 5C alkoxycarbonyl; het is thienyl, pyrazinyl, pyridyl, yl, imidazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxa- lyl, thiadiazolyl, pyrrolyl or their monomethyl derivs). ide and oxime intermediates (II) are also new; these are formula (Id) in which the 9-NH_2 gp. is replaced by -R' (where R' is H or OH).

(I) have antibacterial activity, in vitro or an oral or renteral administration. They are active against Gram s. bacteria (e.g. Staph. aureus, Strep. pyrogenes) and any are of active against Gram neg. cocci (e.g. Pasteu- lla multocide Neisseria sicca). They can be used medi- lly at daily doses of 5-100 mg/kg, applied topically, used r sterilisation and used as industrial antimicrobial gents, e.g. in water treatment, to inhibit mucilage for- ation and as preservatives for paints and wood. 2. 1. 79 873267 (82pp941)

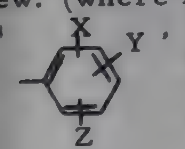
Z ★ D22 49016B/27 ★BE-873-269

Deoxy-4-aryl-glyoxamido and aroyl thio:formamido-eandomycin(s) - antibacterials active against gram-negative and sitive bacteria

PFIZER INC 23.10.78-US-952411 (03.01.78-US-866890)

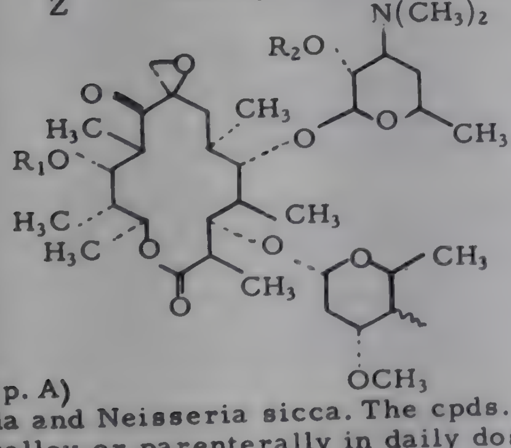
B03 C02 E13 (D15) (02.07.79) A61k C07h

'-Deoxy-4''-arylglyoxamido and aroylthioformamido eandomycin of formula (II) and their acid addn. salts are ew. (where R° is Gp. A; R=-CO-O-R_3 or -CS-CO-R_3; R_3



, thienyl, furyl, pyridyl or 1-4C alkyl; X, Y is H, Cl, Br, F, 1-4C alkyl or 1-4C alkoxy and Z is a X gp., dimethylamino, nitro or amino and R_1, R_2 is H or 2-3C alkanoyl).

$R°\sim NHR$ (II)



Gp. A)

(I) are antibacterials effective in vitro against Gram-pos. bacteria such as Staphylococcus aureus and Streptococcus pyogenes and against Gram-neg. bacteria such as Pasteurella multocida and Neisseria sicca. The cpds. may be administered oralloy or parenterally in daily doses of 1-200mg/kg (esp. 5-50mg/kg), applied topically or used as disinfectants and antimicrobials in water treatment, slime prevention and for preservation of wood and paint. 2. 1. 79 as 873269 (34pp)

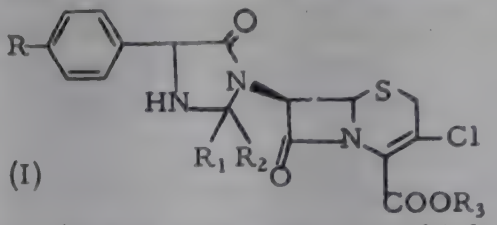
SHIO ★ D22 49025B/27 ★BE-874-377

7-Beta 5-oxo-4-phenyl-imidazolidine-1-yl 3-chloro 3-cephem-4-acids - antibiotics active against Gram positive and negative bacteria, useful in medicine, disinfectants and food preservation

SHIONOGI KK 23.02.78-JA-020675

B02 C02 (18.06.79) A61k C07d

7β-(5-oxo-4-phenyl-imidazolidine-1-yl)-3-chloro-3-cephem-4-carboxylic acid derivs. of formula (I) are new



(I)

(where R is H or hydroxy; R_1, R_2 are H, alkyl, aralkyl, aryl or together form alkylene opt. contg. a heteroatomand R_3 is H or an organic or inorganic cation).

(I) are antibacterials which may be administered orally or parenterally in daily doses of 0.05-200mg/kg. They are active against Gram-pos. and Gram-neg. organisms and are used in human and veterinary medicine and as disinfectants for preserving pershable goods, as food additives and in hygiene. 22. 2. 79 as 874377 (33pp395)

HACK/ ★ D22 49112B/27 ★DL-135-036

Animal blood vessel prepn. for medical use - by treating with calcium hydroxide and tanning with glutaric di:aldehyde soln.

HACKENSELLNER H A 22.03.78-DL-204321

P34 (11.04.79) A61l-13

Animal blood vessel prepn. and preservation comprises (a) laying the blood vessels 1-24 hrs. in a satd. $Ca(OH)_2$ soln. (b) rinsing off excess $Ca(OH)_2$ under running water, (c) transferring into 0.1-0.5 N AcOH for 1-2 hrs. (d) rinsing 30 min. under running water, (e) tanning 6-24 hrs. at room temp. with 0.5-5% glutardialdehyde soln. and (f) freeze-drying.

The preserved xenogenic blood vessels can be used medicinally as a replacement, by-pass or graft for diseased blood vessels and as shunts. Prepn. does not involve the use of expensive enzymes, esp. ficin. 22. 3. 78 as 204321 (5pp200)

HORN/ ★ D22 49142B/27 ★DL-135-156

Steam and hot air sterilisation monitoring - by using specified colorimetric indicators

HORN H 03.10.77-DL-201307

P34 R16 (18.04.79) A61l-03/02 G01n-21/06

The sterilisation of prods. in mecidine, pharmaceutical prodn. and food preservation, is checked by carriers with a suspension, consisting of an adhesive suspension medium and two metallic salts. The colour changes of this indicator depend on temp. humidity and exposure time.

This indicator is equally well suited to steam and hot air sterilisation and takes full account of the duration time 3. 10. 77 as 201307 (5pp39)

BORA- ★ D22 49370B/27 ★DT 2853-557

Synergistic wood preservative compsn. - contains alkali borate and di:alkyl di:thiocarbamate salt

BORAX HOLDINGS LTD 16.12.77-GB-052415

A97 C03 F09 P63 (28.06.79) A01n-09/12 B27k-03/52

Wood preservative contains as active ingredients an alkali metal borate (I) and dithiocarbamate of formula (II). $R_1R_2NCS.SM$ (II) (where R_1 and R_2 = H or 1-5C alkyl. M = alkali metal or opt. substd. ammonium). The wt. ratio (I): (II) is 3:1-1:3, esp. 1:0.5-2.5 (expressing (I) as anhydrous borax). The compsn. may additionally contain an antioxidant; and alkaline salt and/or a gelling agent, e.g. a carboxymethylcellulose deriv.

Compsn. is used for protecting wood against fungi which cause sap stain, surface mould and rotting. The components show synergistic enhancement of activity and the compsns. are relatively nontoxic and water soluble. 1[illegible]. 12. 78 as 853557 (33pp1251)

DOWC ★ D22 49389B/27 ★DT 2854-078

Aq. antimicrobial compsns. based on halogenated amide - contg. an aldehyde stabiliser, are used as slime inhibitors, e.g. in paper making plants and cooling towers, and as sterilisers

DOW CHEMICAL CO 14.12.77-US-860642

A97 C03 F06 P34 (D15 F09) (28.06.79) A61l-13

The compsns. have a pH of 2-5 (pref. 3-4), and contain

(a) a water-miscible organic solvent, e.g. a liq. linear polyethylene, -trimethylene or -tetramethylene glycol or its mono- or dialkyl or-phenyl ether; (b) H_2O; (c) an antimicrobial halogenated amide; and (d) an aldehyde stabiliser

The compsns. can be used as slime inhibitors in aq. systems (e.g. in papermaking plants and cooling towers) and as sterilisers for fabric-cleaning fluids. The aldehyde stabiliser inhibits decompsn. of the halogenated amide in the presence of H_2O. 14.12.78 as 854078 (28pp367)

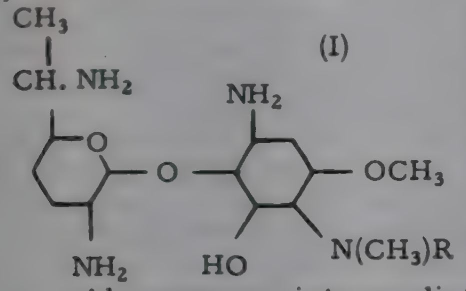
ABBO ★ D22 49412B/27 ★DT 2855-114

2-De:oxy-4-acyl or alkyl fortimicin derivs. - useful as antibacterials, and their precursors

ABBOTT LABORATORIES 21.12.77-US-863006

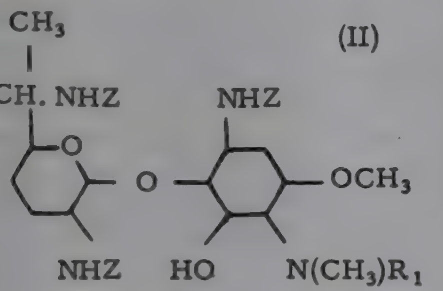
B03 C02 E13 (28.06.79) A61k-31/35 C07h-15/22

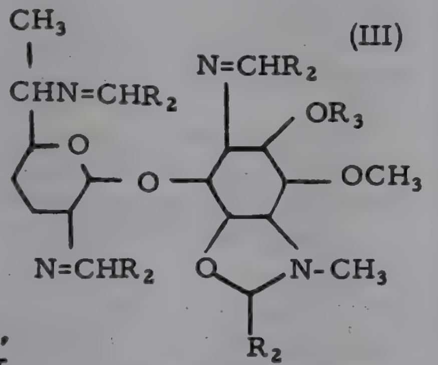
Fortimicin derivs. of formula (I) and their pharmaceutically useful salts are new.


(I)

(R = acyl, amino acyl (opt. N-alkyl or N, N-dialkyl substd), hydroxy(amino)-acyl, amino acid residue, or alkyl (opt. substd. by NH_2 (itself opt. N-alkyl or N, N-dialkyl substd.) and/or OH. All alkyl gps. are 'lower').

Also new are intermediates of formulae (II) and (III), and 2-0-methanesulphonylfortimicin B and its pharmaceutically useful salts.


(II)


(III)

(Z = benzyloxycarbonyl, R_1 = H, acyl, aminoacyl (opt. N-alkyl or N, N-dialkyl substd.), hydroxy(amino)acyl, Z-protected amino acid gp., or alkyl (opt. substd. by NH_2, itself opt. N- or N, N-dialkyl substd). R_2 are each H, or aryl (opt. substd. by OH, CH_3 or CH_3O). R_3 = H or 1-8C hydrocarbylsulphonic acid residue).

(I) are antibacterials effective against R-factor carrying strains which are resistant to other fortimicins. They are administered in standard formulations at 10-200 mg/kg per day. 20.12.78 as 855114 (28pp1251)

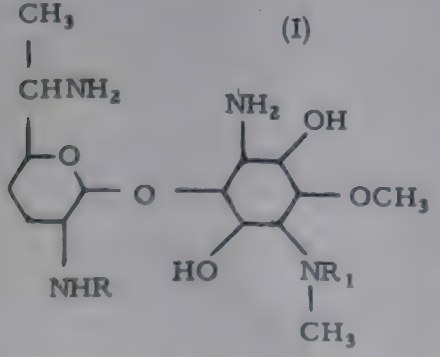
ABBO ★ D22 49414B/27 ★DT 2855-136

Antibacterial antibiotic fortimicin B derivs. - with 2'-N-acyl group 4'-N-acyl or alkyl substit.

ABBOTT LABORATORIES 21.12.77-US-863013

B03 C02 E13 (28.06.79) A01n-09/20 A61k-31/35 C07h-15/22

Fortimicin B derivs. of formula (I) and their salts are new.


(I)

In (I), R is beta-naphthoyl, gamma-naphthoyl, 2-amino-4-hydroxybutyryl, or 2-amino-4-hydroxybutyl; and R_1 is acyl, aminoacyl, N-(lower alkyl)aminoacyl, N, N-di (lower alkyl)amino-acyl, hydroxy-substd. amino-acyl, an amino acid residue, lower alkyl, amino -(lower alkyl), hydroxy-(lower alkyl), (lower alkylamino)-(lower alkyl), di(lower alkyl)amino-(lower alkyl), amino-hydroxy-(lower alkyl), (lower alkylamino)-hydroxy-(lower alkyl) or di(lower alkyl(amino-hydroxy-(lower alkyl).

(I) are antibiotics active against Gram-negative and Gram-positive bacteria after oral or parenteral admin. They can also be used as preservatives in industrial solns. and in antibacterial wash solns. (I) are also useful as

with fluosilicic acid are useful as mothproofing agents. Salts with thiocyanic acid condense with formaldehyde give resinous materials useful as inhibitors. 20.12.78 855136 (11pp280)

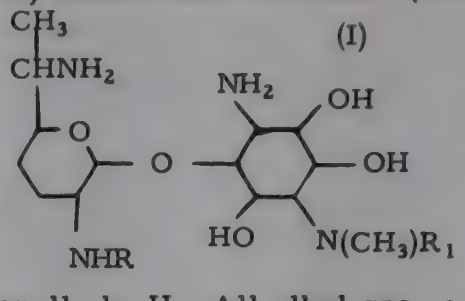
ABBO ★ D22 49416B/27 ★DT 2855

3-De-O-methyl-2-N-acyl fortimicin derivs. - useful as antibacter preservatives, disinfectants etc.

ABBOTT LABORATORIES 21.12.77-US-863014

B03 C02 E13 (28.06.79) A01n-09/20 A61k-31/35 C07h-15/22

Fortimicin derivs. of formula (I) and their pharmaceut ally useful salts are new. (R = acyl, aminoacyl (opt. su


(I)

std. by N-alkyl, or N, dialkyl), hydroxyacyl, hydroxyamino acyl, re idue of a chiral amino acid, or is alkyl opt. s std. by NH_2 (itself opt. substd. by N-alkyl or N-dialkyl) and/or by O R_1 is as R or may addi ionally be H. All alkyl gps. are 'lower'). They are ma e.g. by rearranging the corresp. 4-N-acyl cpds. to giv (I; R_1 = H).

(I) are antibacterials effective against Gram negative and positive bacteria and useful for oral or parenteral administration at 1-100 mg/kg per day. They can also used as preservatives, in disinfectant solns. and as int mediates for other fortimicin. Their H_2SiF_6 salts are moth-proofing agents and their salts with thiocyanic aci can be condensed with HCHO to give corrosion-inhibitin resins. 20.12.78 as 855148 (31pp1251)

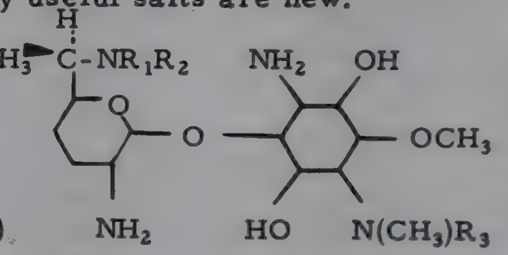
ABBO ★ D22 49417B/27 ★DT 2855-

4-Substd. 6-epi-fortimicin A and B derivs. - useful as antibacteri disinfectants and intermediates, and their precursors

ABBOTT LABORATORIES 21.12.77-US-863004

B03 C02 E13 (28.06.79) A01n-09/20 A61k-31/35 C07h-15/22

Fortimicin derivs. of formula (I) and their pharmaceuti lly useful salts are new.


(I)

(R_1 and R_2 are each H or alkyl. R_3 = H, alk (opt. substd. by amino (itself opt. N-alkyl or N-dialkyl substd.) O or by OH and NH_2 or -alkylamino), acyl (o substd. by amino, OH N-alkyl- or N, N-dialkylamino, or by NH_2 and OH) or is amino acid residue. All alkyl are 'lower'). Novel intermediates are also claimed.

(I) are antibacterials, useful therapeutically at 1-100 mg/kg per day in mammals or birds; in disinfectant sol and are also intermediates for other fortimicins. Their H_2SiF_6 salts are moth-proofing agents and their salts wit thiocyanic acid can be condensed with HCHO to give resi useful as pickling inhibitors. 20.12.78 as 855175 (40pp 1251)

DANT- ★ D22 49455B/27 ★FR 2404-4

Gaiters to protect a horses legs from bruising or sprain - are elastic fabric with an opening along their length

DANTO TRICOTS ELAST 28.09.77-FR-029881

P32 (01.06.79) A61d-09

Fetlock binders for sporting horses or racehorses take the form of 'gaiters' to protect the tendons of the leg fro bruising and sprains, and also to assist in certain indispositions due to injury or infection. The gaiters comprise an elastic fabric, open along its length and supplied with closure means to form a snug covering for part of the horse's leg.

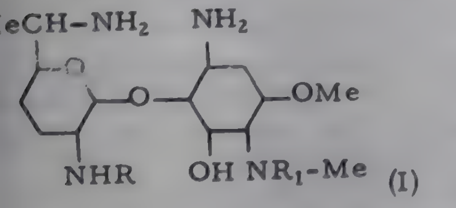
The elastic constriction offers a continuous massage the leg during movement to improve circulation, reduce swelling, soften scar tissue, and reduce discharge. The elastic fabric may be fastened by hooks and eyes, or "Velcro" (RTM) hooked pile strips. 28.9.77 as 029881 (4pp1359).

★ D22 49456B/27 ★FR 2404-437
rising device for water-closets etc. - comprises ozone lamp in
ith vertical openings for escape of ozone
ROUINEAU R 30.09.77-FR-029565
5 P34 (01.06.79) A61l-09/ C01b-13/10*
prising device comprises an ozonising lamp placed in
having vertical openings; the ozone, being heavier
air, escapes freely from the lower portion of the box
ngs thus creating an inflow of fresh air into the upper
on.
ne device can be fixed to the wall of a water-closet so
a person entering affects the light reaching a detect-
this starts the ozone source which then operates for a
etermined time. A stud can be provided for fixing the
ce to a car with a connection to the cigar-lighting cir-
30. 9. 77 as 029565 (8pp519).

★ D22 49457B/27 ★FR 2404-438
fection and sterilisation process using ethylene oxide - mixed
combustion inhibitor to overcome flammability and toxic
rds
ALLER SA ENTREPRIS 30.09.77-FR-029527
13 P34 (E16) (01.06.79) A61l-13
ylene oxide is mixed with a combustion inhibitor which
ufficiently efficient in a small enough amt. to allow the
t. to be used at around atmospheric pressure. One vol.
bitor per vol. ethylene oxide is used at the most.
Suitable inhibitors are a brominated cpd., such as
Br, $CClF_2Br$, tetrafluorodibromoethane or MeBr. The
t. can be made by vaporising the ethylene oxide and the
nbustion inhibitor and expanding them under a pressure
r to atmospheric.
The mixt. is used for disinfection, sterilisation and/or
ing insects. The process simultaneously overcomes
two main hazards of ethylene oxide, viz. its flammab-
y and toxicity. The combustion inhibitor overcomes the
nmability, but because it need be used in small quantity
y, the pressure need not be raised substantially above
nospheric, with the attendant danger of escape of toxic
. 30. 9. 77 as 029527 (15pp1331).

DS D22 49771A/28 =GB 1548-156
itary towel with outer covering of nonwoven fabric - to improve
r comfort and reduce risk of leakage
KAO SOAP KK 04.03.77-JA-U26069
*A96 F04 P32 (04.07.79) *BE-864-524 A61f-13/16*
anitary towel comprises an absorption layer (I), a wat-
roof layer (II) covering the lower surface and both sid-
of (I), and a layer (III) of nonwoven fabric covering the
ole of (I) and (II). The nonwoven fabric has a density
0.01-0.07 g./cm^3 and a thickness of 0.3-3 mm.
The fabric comprises a blended mixt. of rayon fibres
d polypropylene fibres in a wt. ratio of 90:10 to 30:70
:20 to 45:55). The fibres are adhered to each other by
rtial fusion of the polypropylene fibres. Pref. (I) com-
ises fluff pulp, absorbent tissue, absorbent cotton or a
ghly absorbent hydrophobic polymer.
The sanitary towel has high blood absorption rate and
surface does not become tacky. 3. 3. 78 as 008533.
p992)

BO ★ D22 49527B/27 ★GB 2010-823
Deoxy-N-substd.-fortimicin A and B cpds. - useful as broad
ectrum antibacterials, preservatives, moth-proofing agents and
ermediates
ABBOTT LABORATORIES 21.12.77-US-863011
B03 C02 E13 (04.07.79) A01n-09/20 A61k-31/71 C07h-15/22
-Deoxy-2^1-N-substd.-fortimicins A and B of formula (I)
d their acid-addn. salts are new.



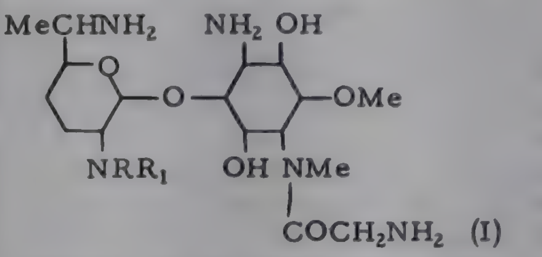
(I)

In the formula, R is acyl, aminoacyl, N-alkyl- or N,N-dialkyl-aminoacyl, hydroxyaminoacyl, an amino acid residue, alkyl, aminoalkyl, hydroxyalkyl, N-alkyl- or N,N-dialkyl-aminoalkyl, aminohydroxy-
lkyl, N-alkyl- or N,N-dialkyl-aminohydroxyalkyl; and
$_1$ is H or a R gp.; provided that all alkyl gps. have 1-6C
d acyl is 2-7C alkanoyl.

use in mammals. Dose is 1-100 mg./kg. daily. (I) are also preservatives for industrial solns., in scrub solns. etc. (I) are intermediates for antibacterial fortimicin derivs. Fluosilicic acid salts of (I) are mothproofing agents. (I) salts with thiocyanic acid condense with CH_2O to form resinous materials useful as pickling inhibitors. 20.12.78 as 049398. (10pp1248)

KYOW ★ D22 49528B/27 ★GB 2010-825
N-Substd.-fortimicin A derivs. - useful as broad spectrum antibacterials and disinfectants
KYOWA HAKKO KOGYO 21.12.77-JA-153000
B03 E13 (04.07.79) A61k-31/71 C07h-15/22

2^1-N-Substd.-fortimicin A derivs. of formula (I) and their acid-addn. salts are new:



(I)

R_1 is H or 1-4C alkyl; R is R_2CO or R_3R_4CH; R_2 is 1-8C alkyl, 2-8C aminoalkyl, 1-5C hydroxyalkyl, 2-9C carbamoylaminoalkyl, 2-12C N-alkylaminoalkyl, 2-8C aminohydroxyalkyl or 2-8C N-alkylaminohydroxyalkyl; R_3 and R_4 are H, 1-8C alkyl, 1-8C aminoalkyl, 1-5C hydroxyalkyl, 2-9C carbamoylaminoalkyl, 2-12C N-alkylaminoalkyl, 2-8C aminohydroxyalkyl, 7-12C aralkyl, 2-8C N-alkylaminohydroxyalkyl or 7-12C aryloxyalkyl; or $R_{11}+R_{12}$ complete a cyclohexyl gp.

(I) are esp. effective against bacterial strains resistant to fortimicin A, and are disinfectants. 21.12.78 as 049713. (23pp1248)

NITL ★ D22 49538B/27 ★GB 2010-851
Antibacterial and antifungal materials - contg. polymer having acid gps. and quat. ammonium cpd.
NITTO ELECTRIC IND KK 22.12.77-JA-155294
A97 C03 (04.07.79) C08f-08/44

Antibacterial and antifungal material (I) comprises a polymer (II) contg. ≥0.008 mequiv. acid gps. per g. and 0.0002 mmole/g. (II) of a quat. ammonium cpd. of formulae: $C_nH_{2n+1}N^{\oplus}Me_3X^{\ominus}$ (III); $C_nH_{2n+1}N^{\oplus}Me_2CH_2PhX^{\ominus}$ (IV); $Me_3CCH_2CMe_2$-p-$C_6H_4OCH_2CH_2OCH_2CH_2N^{\oplus}Me_2CH_2PhX^{\ominus}$ (V); or C_nH_{2n+1}-p-C_6H_4-$CH_2N^{\oplus}Me_3X^{\ominus}$ (VI) (in (III) and (IV) n is 8-18 and in (VI) n is 10-18; and X is Cl or Br).

(I) have prolonged and high antibacterial and antifungal action, and are useful as preservatives and sterilising or disinfecting agents. They may be used to protect fabrics, polymers, paper, etc. and in coating materials, esp. paints; useful in building materials, pulp slurries, air filters, wallpapers, packaging materials, hospital materials, etc. 27.7.78 as 031414. (8pp1248)

NIRA ★ D22 49832B/27 ★J5 4064-882
Antithrombotic poly(meth)acrylate material - is coated with layer of material, e.g. urokinase or streptokinase, which dissolves fibrin
UNITIKA KK 01.11.77-JA-132008
A96 B04 P32 P34 (A14) (24.05.79) A61f-01/24 A61l-17 A61m-25

Material comprises a base of an acrylic acid ester or methacrylic acid ester polymer and a surface layer of fibrin soluble material, such as urokinase or streptokinase.

The material is used in the mfr. of an artificial kidney, an artificial heart, an artificial blood vessel or a catheter.

In an example, a PMMA sheet is exposed to an ammonia gas plasma to induce amino radicals at the surface of the sheet. The sheet is washed with an acetone soln. and dried Then the sheet is immersed in a physiological salt soln. of the urokinase for 24 hrs. at 7°C to form the urokinase layer on the sheet. The sheet dissolves fibrin films. 1.11.77 as 132008 (5pp64)

MITQ ★ D22 50033B/27 ★J5 4066-376
Gas treatment to remove offensive odours - by passing through catholyte and anolyte of aq. sodium chloride or bromide electrolysis cell
MITSUBISHI ELECTRIC CORP 07.11.77-JA-133192
J01 (J03) (28.05.79) B01d-53/34 B01k-01

Appts. for removing an offensive odour, includes an electrolytic cell conducting DC electrolysis of aq. NaCl or insol. material. A partition made from biscuit porcelain separates the electrolytic cell into an anode chamber and cathode chamber. The gas stream contg. offensive odour components is fed into the soln. of the cathode chamber and then into the soln. of the anode chamber.

The offensive odour may be completely removed by the two-step washing. Since the concn. of chemical fluid depends on electrolysis current, its adjustment may readily be effected. 7.11.77 as 133192 (4pp96)

KAWA/ ★ D22 50070B/27 ★J5 4066-513

Preventing creaking in joints of wood structures - by applying polyethylene glycol and/or polypropylene glycol together with antiseptic

KAWAMURA M 07.11.77-JA-133203

A93 C03 F09 Q43 (29.05.79) E04b-01/82

Method comprises applying to the joint, by injection, coating or impregnation, a liquor contg. polyethylene glycol (I) and/or polypropylene glycol (II), and an antiseptic, e.g. NaF.

(I) and/or (II) act as lubricant and maintain the wood structure in the swelled state for long periods by permeation, so the frictional resistance at the joint is decreased. The mol. wt. of (I) is pref. > 1,000, and its lubricity and swellability differ in accordance with variation in the mol. wt., so (II) is used in combination with (I) to adjust the lubricity and swellability. The concn. of (I) and/or (II) is pref. 2 to 20% when used as an aq. soln. 7.11.77 as 133203 (2pp34)

TEIJ D22 00594V/01 =J7 9014-607

Pressure sensitive adhesive - for adhesive tapes and medical dressings

TEIJIN KK 26.07.72-JA-074089

*A14 G03 (A81 A96) (08.06.79) *NL7308-139 C08f-220/18 C09j-03/14*

Pressure sensitive adhesive contains as main components a copolymer of (I) 94-98 mole % of at least one alkyl acrylate with a 1-14C alkyl gp., the average no. of C atoms being 4-12, esp. 2-ethylhexyl acrylate, or a mixt. of this alkyl acrylate with methyl methacrylate and/or vinyl acetate in a molar ratio from 5 to more than 1, (II) 2-6 mole % (meth)acrylic acid, and (III) 0.002-0.05 mole % polyfunctional cpd. which is copolymerisable with monomers I and II, and contains at least two non-conjugated carbon-carbon double bonds per molecule. 26.7.72 as 074089 C09j-3/14, C08f-220/18 (8.6.79) TEIJIN LTD (4pp) (J4 9032933)

COLG ★ D22 50706B/27 ★US 4158-363

Disposable diaper with extensible fastener - has tape attached to absorbent pad with central part accordion folded

COLGATE PALMOLIVE CO 22.02.78-US-880260 (20.12.76-US-752495)

P32 (19.06.79) A61f-13/16

The diaper comprises an absorbent pad with a release sheet on a surface adjacent a side edge, and a tape strip with one part secured to the pad surface, a securement part releasably attached to the sheet, and an extensible central connecting part.

The central part and attached release strip are pre accordion-folded between the sheet ends. The arrangement facilitates securing of the diaper. 22.2.78 as 88 (8pp1358)

PURX ★ D22 50745B/27 ★US 415

Cleaning and disinfecting hard floors - using head having parallel flexible strips with suction applied to intermediate spac

PUREX CORP LTD 11.04.77-US-786352

P43 (19.06.79) B08b-05/04 B08b-07/04

Soils and bacteria are removed from a hard floor usin appts. which includes two upright, spaced flexible stri which are parallel to each other and enclose a space b ween them to which suction is applied. The lower edg the strips engage the floor and flex.

As the strips are displaced in one direction, the lo edges of the strips flex in the opposite direction and th leading strip passes soils beneath it into the space for oval by the suction. A disinfectant liquid is applied to floor outside the space between the strips to wet the fl This disinfectant passes together with the soils into th space between the strips from where it is removed by suction.

The method is partic. used to clean and disinfect ho tal floors. The floor is not only cleaned but also dried 11.4.77 as 786352 (8pp295)

MOOC D22 47480B/26 =WP 7900

Dressing for high fluid secretion wounds - has foils enclosing w and superposed gauze and interchangeable absorption body by plaster

MO OCH DOMSJO AB 08.12.77-SW-013918

*P32 P34 (28.06.79) *EP---2-509 A61f-13*

D/S: N(DK, JA).

Wound dressing consists of a pair of adhesive pieces (1,2) provided with semi-circular recesses for attachment (with or without overlap) to the skin about the wound. A perforated foil (4) or gauze is placed over t pieces, and if required over the skin and attached to th pieces and skin. An absorptive body (8), having a con face and consisting at least in the proximity of the wo of a material (10) having a water absorption rate of at least 50 mm per 10 mins. (measured in accordance wi Klemm (SCAN - P 13 : 64))is enclosed in a foil (9) wh is water permeable. Body (8) is attached to the skin using adhesive tapes (6,7).

Use of powder is dispensed with. The body may be changed as required. Provision of pieces encircling wound prevents festering. The dressing is esp. used f wounds with a high rate of secretion of fluids.

5.12.78, as SW 0089 (22pp536).

(E) ISR: DT 2340205.

See Also

D13 BE 873265 D16 BE 873217

D23: OILS; FATS; WAXES

DAHL/ D23 68109V/39 =DS 2313-224

Oil seed heat treatment - in inclined fluidized bed agitated by steam

DAHLEN J 16.03.73-DT-313224

*(28.06.79) *DT2313-224 C11b-01/04*

Whole or comminuted oily fruit seeds, e.g. rape seed, are heat treated in a fluidised bed process with steam as the heating and fluidising agent. The seeds are passed over an inclined, perforated surface. The steam present is first condensed on the surface of the seeds causing a momentary rise in temp. and at the end of the process is partly eva-

Inactivation of enzymes present is complete. 16.3.7 313224 (4pp68)

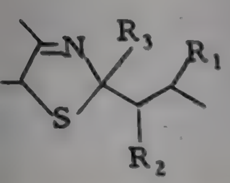
INFL D23 59207Y/33 =DS 2742

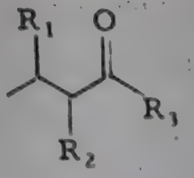
Substd.-(4,5)-(di)methyl thiazoline cpd. perfume and colo compsns. - useful in soap, detergent and powder

INT FLAVOURS FRAGRANCES 07.10.76-US-730653 (07.10.76-730156)

*E13 +P15 (28.06.79) *US4040-987 A23l-01/22 A24b-15 A 07/46 C07d-277/10 C11d-09/44*

New cpds. are 2-alkyl-substd. 4,5-dimethyl-Δ^3-thiazo





(II)

others are H).

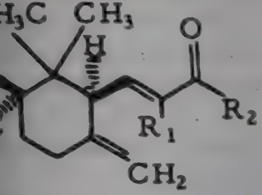
(I) may be prepd. by reacting ammonia with a cpd. (II) and reacting the resulting imine with mercapto-butanone. (I) are use-
s flavouring agents for food, perfumed articles or
cco. 21.9.77 as 742391 Div.in. 2759502 (+7.10.76(2)-
730157; 730536) (20pp68)

E- ★ D23 49474B/27 ★FR 2404-616

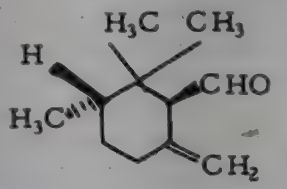
mic gamma-irone, useful as perfume or aromatising agent -
od. from trans-2,6-methyl-6-gamma-cyclocitral and a
sphorane

OBERTET & CIE 30.09.77-FR-030164
15 (01.06.79) A23l-01/22 A61k-07/46 C07c-49/61

(±)trans-2,6-trans-$2_1, 2_2$-γ-irone of formula (I)



(I)



(II)

(where R_1 and R_2 are each lower alkyl) is useful as a perfume, e.g. in soaps and colognes, or
an aromatising agent for foodstuffs, e.g. milk prods.
confectionery.

(I) may be prepd. by reacting trans-2,6-methyl-6-γ-
clocitral of formula (II) with a phosphorane of formula
$R_4R_5P=C(-R_1)-C(=O)-R_2$ where R_3, R_4 and R_5 are (cyclo)-
phatic or aromatic gps. Reaction is pref. carried out in
inert organic solvent, e.g. THF, at 40-85 °C for 30-60
s. 30.9.77 as 030164 (-pp927).

RT/ ★ D23 B/27 ★IT 1030-591

glycerides progressive fractionation - in particular palm oil

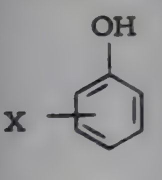
MARTINENGHI G B 22.07.74-IT-025427
(10.04.79) C11b

EI ★ D23 50095B/27 ★J5 4066-639

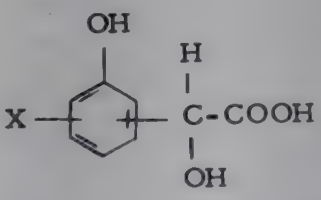
ono:formylated phenol cpds. prodn. - by reacting alkoxy-or alkyl-
enol cpds. with glyoxylic acid and oxidising cpd. formed

UBE INDUSTRIES KK 08.11.77-JA-133091
B05 E14 (29.05.79) C07c-47/56

onoformylated phenols are produced by reacting phenols
formula (I) with glyoxylic acid in mixed solvents com-
ising water and 1-4C alcohols in wt. ratio (alcohol to
ater) of 0.05-2 in a basic state at 0-50 °C and of oxidis-
g the obtd. cpds. of formula (II).



(I)



(II)

ref. (I) includes 2-methoxyphenol, 3-ethoxyphenol, 2-
-propoxyphenol, etc. The amt. of glyxoylic acid used
0.5-2 moles per mole phenol. Pref. the 1-4C alcohol
methyl alcohol, isopropyl alcohol or tert. butyl alcohol.
he amt. of water used is 500-1000 ml per mole phenol.
he reaction is performed at 0-50 °C for 6-24 hrs. (II)
re oxidised with O_2 or air at 80-150 °C in the presence of
atalysts such as Cu, Co, Cr, Fe.

The selectivity to monoformylated phenols is high and
hat to diformylated phenols low. The prod. are used as
erfumes and the intermediates for medicines. 8.11.77
s 133091 (6pp136)

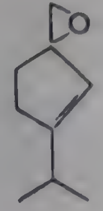
IOC ★ D23 50110B/27 ★J5 4066-657

-Isopropyl-1-oxa-spiro(2.4) hept-4-ene - useful as intermediate for
abinene hydrate, used to enhance flavour of spearmint or
eppermint

LION DENTIFRICE KK 01.11.77-JA-131204
E13 (D13) (29.05.79) C07d-301/02 C07d-303/04

5-Isopropyl-1-oxaspiro /2.4/hept-4-ene of formula (I) is
new. It is useful as an intermediate in the prepn. of sabinene hydrate whihch is used in enhancement of fragrance of spearmint or peppermint. Sabinene hydrate is prepd. from (I) as follows: (I) reacted with CH_2I_2 in ether in presence of Cu-Zn catalyst yielding spiro-(5-isopropylcyclo/3.1.0/ hexane-2,2'-oxirane) /referred to as sabinene oxide/, and the latter is subjected to reductive cleavage of the oxirane ring to yield sabinene hydrate.

(I)



(I) is prepd. by reacting 3-isopropy-2-cyclo-penten-1-one (II) with a sulpaonium methylide $R^1(R^2)\bar{S}-R^3.X^-$ /where R^1, R^2 = Me, t-Bu, Ph, substd. Ph, naphthyl or diethylamino; R^3 = Me opt. substd. by Si, S or halogen; X = anion e.g. halogen ion, BF_4^-, OCl^-, ClO_4^-, $SbCl_6^-$, picrate ion, HSO_4^-, SO_3^-, nitrate ion, Ph_4B^-/. 1.11.77 as 131204 (5pp52)

TOYO- ★ D23 50111B/27 ★J5 4066-658

Cis jasmone prepn. by cyclising 1,4-di:ketone - prepd. from 4-ethylene-di:oxy-pentanal

TOYOTAMA KORYO KK 02.11.77-JA-132004
E15 (29.05.79) C07c-45 C07c-49/46

Cis-jasmone is produced by reacting (a) 4-ethylenedioxy-pentane-1-al with (b) the organic metal cpds. obtd. from cis-3-hexenyl halogenides, oxidising (c) the 2-ethylenedioxy-8-undecene-5-ol obtd. above with (d) oxidants and cyclising (e) the 1,4-diketone formed.

1,4-Diketone is synthesised with the aid of levulinaldehyde deriv., different from the conventional method employing levulinic acid deriv. Component (a) is synthesised by ketalating (1) the 1.1-diacetyloxy-4-pentanone formed by the radical reaction of acrolein diacetate and acetoaldehyde with (2) 1,2-glycols and hydrolysing the prod. with (3) alkali. Component (c) is produced quantitatively by the reaction of (a) and (b) (e.g. Grignard's reagent, lithium cpds.). Component (c) is oxidised with (d) (e.g. chromic acid-pyridine). Component (e) thus obtd. is treated with acids, e.g. 20% sulphuric acid. The target prod., cis-jasmone is obtd. by heating 1,4-diketone and diluted alkalis. 2.11.77 as 132004 (3pp136)

LIOC ★ D23 50113B/27 ★J5 4066-663

Spiro(5-isopropylbicyclo(3,1,0)hexane-2,2' oxirane) prodn. - by sabinene oxidn; used as perfume, flavourant and in trans-sabinene hydrate prodn.

LION DENTIFRICE KK 01.11.77-JA-131203
E13 (D13) (29.05.79) C07d-303/04 C11b-09

"Sabine oxide" is produced by the reaction of sabine and oxidants. Trans- and cis-sabinene oxides are produced under mild conditions. The trans-form is formed prior to formation of cis-form. Sabinene oxide is used as perfume, flavour, synthetic intermediate for the prodn. of trans-sabinene hydrate.

The starting raw material, sabinene is obtd. from the purified nutmeg oil, etc. As the nutmeg oil is purchased at a relatively low cost, use of nutmeg oil is profitable from the industrial viewpoint. Sabinene is also produced by the reaction of sabinaketone and methylenetriphenylphosphorane.

Oxidants include, e.g. perbenzoic acid, monoperoxyphthalic acid, peracetic acid, t-butylhydroperoxide vanadium (II) acetyle acetonate. Pref. are organic peracids. The amts. of the oxidants used are usually about 20 moles to 1 mole of sabinene. The reaction of sabinene and oxidants are performed in solvents (pref. methylene chloride, chloroform) at -15 to 100 °C, pref. < 60 °C for 1-10 hrs. 1.11.77 as 131203 (6pp136)

NAAR ★ D23 50227B/27 ★NL 7713-925

4-Deceno:nitrile used as fragrance - in perfumes and perfumed products

NAARDEN INT NV 15.12.77-NL-013925
E16 (19.06.79) A61k-07/46

Processes for preparing perfume compsns. and for perfuming products such as soaps, detergents, cleaning compsns and cosmetics, using 4-decenonitrile (I), are claimed. Also claimed is the cis isomer of (I). (I) is pref. used in the cis form or in the form of a mixt. contg. ≤ 50% of the
The cis isomer can be prepd. by reacting

cis-4-decenal with $NH_2OH.HCl$ and treating the resulting oxime with acetic anhydride.

The cis isomer has a strong, fresh lily-of-the-valley aroma accompanied by a pleasant green note. 15.12.77 as 013925(9pp367).

KHFA= ★ D23 50322B/27 ★SU -622-837
Recovering solvent from oil-cake - by simultaneously heating with superheated gas mixt. and vacuuming
KHARKOV FATS RES 08.10.76-SU-410733
(22.07.78) B01d-03 C10b-03/14

Solvent is recovered from oil-cake by blowing a superheated air-gas mixt. through the cake whilst vacuuming it to a residual pressure of 0.68-0.70 kg./sq. cm.

The method intensifies the solvent recovery process. In a typical process the air-gas mixt. is heated to 200°C. Pototoţskaya, N.A., Gavris, E.A., Orach, Z.P. Bul. 33/5.9.78. 8.10.76. as 410733 (2pp314)

MILK= ★ D23 50479B/27 ★SU -623-542
Continuous prodn. of processed butter - includes melting butter, thermally treating, two/stage sepn. and cooling to improve organoleptic characteristics
MILK CHEESE IND 04.02.77-SU-450317
(01.08.78) A23c-15/14

The processed butter is produced by melting the starting material, subjecting it to a thermal treatment, sepg. the plasma from the milk fat by two-stage separation, and cooling the butter.

The method is improved by continuously carrying out the thermal treatment at 105-110°C immediately after the melting of the starting material; then purifying the product by removing the proteins; and sepg. the fat fraction from the plasma by a successive two-stage sepn. By this method, the process is accelerated, and the quality and the organoleptic properties of the product are improved.
Obedkov, K.V., Avtadilyan, B.N., Vyshemirskii, F.A. Bul. 34/15.9.78. 4.2.77. as 450317 (2pp70)

FATS= ★ D23 50613B/27 ★SU -623-862
Refining cacao husk oil - including removing phenolic cpds. by extraction with sodium chloride soln.
FATS RES INST 25.02.77-SU-455936
(04.08.78) C11b-03

Oil from cacao husk is refined by (a) removing phenolic cpds. by a liq. liq. extraction with 5-10% NaCl soln. at 50°-80°C at an extractant: oil ratio of 1:10-6, (b) neutralising the remaining oil (c) washing it with water, (d) treating it with an adsorbent, (e) drying and (f) deodorising.

The initial step removing phenolica improves the quality of the refined oil and soapstock prods.
Volotovskaya, S.N., Burnashev, V.R. Bul. 34/15.9.78. 25.2.77. as 455936 (2pp314)

MART/ ★ D23 50729B/27 ★US 415
Incense producing scent like marijuana - contg. ground alfalfa
leaves and starch binder
MARTIN K E 31.03.78-US-892098
(19.06.79) C10l-05/44

An increase compsn. comprises about 10 pts. ground
falfa stems and leaves, about 1 pt. ground bay leaves,
about 1.5 pts. starch binder.

The compsn. on burning produces an odour very li
that of marijuana, but does not contain any toxic or ill
ingredients. 31.3.78 as 892098 (3pp955)

SCMZ ★ D23 50802B/27 ★US 415
Hydrogenation of glyceride oils contaminated with soaps -
nickel catalyst contg. copper chromite co-catalyst
SCM CORP 10.11.77-US-850150 (18.10.76-US-733348)
(19.06.79) C11c-03/12

Glyceride oil (I) contaminated with 0.01-0.25 wt.% so
(II) is hydrogenated to a prod. with iodine value ≯ 10
over > 0.02 wt.% Ni catalyst and > 0.25 wt.% Cu ch
mite Co catalyst. In the hydrogenation the concn. of t
Cu chromite is maintained so that it is approx. propor
nal to the (II) concn. in the feed oil.

Hydrogenation is rapid even in the presence of rela
ly high levels of (II) (and also free fatty acid).

Pref. hydrogenation is at 250-500° F/0-100 psig ge
ally using 0.025-0.3 wt.% Ni catalyst and 0.25-3 (1-3)
Cu chromite catalyst. The Cu chromite catalyst is op
stabilised with 4-8% by wt. of an alkaline earth or mul
lent metal oxide, and has Cu: chromite components ra
ca. 1:1. Feedstock is typically vegetable oil (pref. ed
pref. alkali refined. 10.11.77 as 850150 (9pp478)

SCMZ ★ D23 50803B/27 ★US 415
Hydrogenation of glyceride oils contg. soaps - over nickel ca
contg. copper chromite, then over nickel
SCM CORP 10.11.77-US-850160 (17.03.77-US-778710)
(19.06.79) C11c-03/12

Glyceride oils (I) contg. 0.003-0.25 wt.% of soap (II)
hydrogenated to give a prod. of iodine value ≯ 30 by p
hydrogenation over > 0.02 wt.% Ni catalyst and > 0.
wt.% Cu chromite adjunct catalyst (amts. by wt. of (I))
The concn. of the Cu chromite catalyst is kept about p
ortional to the (II) concn., and the prim. hydrogenatio
stopped when the prod. has iodine value ≮ 10% less tha
the iodine value of (I). The adjunct catalyst is sepd.,
the prod. is hydrogenated again over 0.01-0.3 wt.% Ni
The sec. hydrogenation is stopped when the iodine valu
less than the inter. value (above) and ≯ 30, and the pr
is withdrawn from the sec. hydrogenation zone.

Process efficiently handles (I) contg. varying (II)
concns., and remains insensitive to (II). In addition,
rate of the sec. hydrogenation is improved, and the ov
all rate is greater for a wide range of iodine values of
10.11.77 as 850160 (10pp478)

See Also

D13 DS 2624654

D24: SOAP; SOAP DETERGENTS

DAII D24 17591U/13 =DS 2244-310
Detergent compsn for use in washing machines - contg soap and ester(s) of cane sugar with fatty acids
DAIICHI KOGYO SEIYAKU 06.10.71-JA-078872 (11.09.71-JA-070554)
*(28.06.79) *DT2244-310 C11d-01/83*

Detergent compsn. contains 75-97 wt.% of a soap, component and 3-25 wt.% of a fatty acid ester component comprising a sugar and a mono- or di-ester of a (un)satd. fatty acid, at least part of which is a crude sugar ester of a 12-14C fatty acid.

The detergent is effective at low temps. and is completely biodegradable. The sugar component may be crude s
ar, sorbital, a decompsn. prod. of crude sugar or thei
mixts. 9.9.72 as 244310 (+13.9.71-JA-071484) (14pp68)

KAOS ★ D24 49363B/27 ★DT 2851-
Soap-filled scouring pads - contg. specified alkali metal fatty
soap
KAO SOAP KK 26.12.77-JA-156948
E12 P28 (D25) (28.06.79) A47l-13/17 C11d-09/02

Scouring pads contg. a special alkali metal fatty acid s
are claimed. The fatty acid has an average carbon no.
16-20 and an iodine no. of 30-45 (esp. 35-43) and is 85-

0-96) wt. % neutralised with alkali.
fatty acid is pref. partially hydrogenated tallow
acid, e.g. produced by hydrogenating tallow fatty
vith an iodine no. of 48) at 150 °C and 4.0 kg/cm² in
esence of 0.05% of a Ni catalyst for 1 hr. The alkali
can be Na or a mixt. of Na and K with a Na : K wt.
of 100 : 0 to 90 : 10. The soap can opt. be used in
nation with synthetic detergents, inorganic salts,
dyes, perfumes, microbicides and/or rust inhibitors.

The soap inhibits scratching of the article being scoured and suppresses rusting of the (steel wool) pad during mfr. and use. 29.11.78 as 851542 (21pp367)

D25: OTHER DETERGENTS

- ★ D25 49069B/27 ★CA 1056-687
**merated dishwashing detergent prepn. - comprising
mly distributing an aq. alkaline detergent salt soln. on to
constituents**
NN CHEM LTD 08.04.76-CA-249812
(19.06.79) C11d-03/06
glomerated dish-washing detergent is prepd. by uni-
y distributing an aq. soln. of alkaline detergent salt
a mixt. of constituents, including Na tripolyphosph-
mixing the prod. to uniformly coat the constituents
ydrate the tripolyphosphate, the vol. ratio of dry
ituents initially charged to air in the mixing vessel
1:8-1:25 (pref. 1:8-1:18) and mixing the formed
merate to ventilate it to the air in the vessel.
free flowing, uniformly agglomerated detergent is
d. with < 2% 'balling', i.e. formation of large
rphous lumps. 8.4.76 as 249812 (24pp558)

★ D25 49193B/27 ★DL-135-287
**fecting detergent compsns. for washing textiles - esp. synthetic
, contain nonionic surfactant, peroxy cpd. and builder**
EBERSCHAR K 01.02.78-DL-203491
6 (25.04.79) C11d-03/39
rgent compsns. consist of nonionic surfactants, peroxy
. and standard detergent compsn. builders. Pref. com-
. contain, by wt. w.r.t. total wt. 10-13.5% nonionic
actant and 10.5-15% H_2O_2.
he compsns. can be used for the fully hygienic launder-
of synthetic fibre-contg. textiles at 50-60°C and are
ic. suitable for hospital linen. Bleaching is achieved in
-wash. Staining of fabrics, by proteins and blood, and
irritation are prevented. 1.2.78 as 203491 (8pp200)

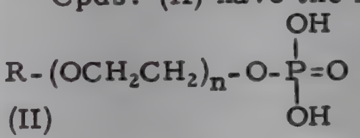
★ D25 49194B/27 ★DL-135-288
**cleansing soln. for hard surfaces - contains surfactant,
phoric acid and cpds. having betaine structure**
KAD WISSENSCHAFT DDR 29.12.77-DL-203012
97 E19 (25.04.79) C11d-01/90 C11d-03/07
nsing compsn. for hard surfaces consists of an aq.
. of standard surfactants, H_3PO_4 and organic charge-
lising substances, (I), having a betaine structure, pref.
N-CH-$(PO_3H_2)_2$ or alkylated aminopolycarboxylic acids.
he compsns. are used esp. for cleansing GFR unsatd.
ester resin sheets, e.g. for covering greenhouses, and
for cleaning glass, ceramic or metal surfaces. Heav-
soiled surfaces can be cleaned at 10-35°C. The solns.
not act aggressively and are non-corrosive.
n an example, greenhouse panels were sprayed with
nsing soln. The intensity of illumination increased by
15%. 29.12.77 as 203012 (10pp200)

C D25 74928S/47 =DS 2124-526
foaming detergent compsn
PROCTER & GAMBLE EU 20.05.70-LU-060943
*A97 (A81) (28.06.79) *BE-767-367 +C11d-01/86*
shing and cleansing agent contains 2-30 wt.% of a water-
uble organic non-cationic surfactant, 0-80 (15-45) wt.%
water-soluble builder, 0.05-5 wt.% of a foam regula-
and 0.5-8.0 wt.% of (co)polymers of cpds. of formula
$_2$=CHM (where M is a pyrrolidone, $-OCOCH_3$, $-OCOC_2H_5$
CH_3 or OC_2H_5 gp.) of molecular wt. 1000-50,000; poly-
rs of ethylene oxide of molecular wt. 1000-50,000; co-
vinyl ethers or
styrenes of molecular wt. 10,000-300,000 or their water-soluble alkali or (substd.) ammonium salts.

The foam regulator is a silicon, a powdery silanised silicic acid, a powdery (co)polymer of styrene, ethylene, fluoroethylene, butylene or isobutylene or mixts. of these. A bleach, e.g. a perborate, and other usual additives may also be present. Foaming is controlled at high and room temps. 18.5.71 as 124526 (11pp68)

UNIL D25 76534S/48 =DS 2126-589
Liquid washing up detergent contg an antiresoiling agent
UNILEVER NV 29.05.70-GB-025920
*E11 (28.06.79) *BE-767-887 C11d-01/86*
Agent for washing dishes by hand contains an anionic detergent, a solvent aid (I) and a surface active phosphorus cpd. (II), but no builders. Cpds. (I) are (a) primary and secondary 10-16C aliphatic alcohols or vicinal-diols contg. 7-20 mols. ethylene oxide, (b) 8-12C alkyl-phenols contg. 7-20 mols. ethylene oxide, (c) alkali or (substd.) ammonium salts of 11-18C alpha-olefin sulphonates and random olefin sulphonates or (d) alkali or (substd.) ammonium salts of 11-15C ether (2-10 ethylene oxide) sulphates.

Cpds. (II) have the formula:



$$R-(OCH_2CH_2)_n-O-\overset{\overset{OH}{|}}{\underset{\underset{OH}{|}}{P}}=O$$

(II)

(where R is a linear 12-16C alkyl gp. or $\begin{matrix}R_1\searrow\\ \end{matrix}R_3-\begin{matrix}\\ \end{matrix}$ (R_1 above, R_2 below) where R_1 is $-(CH_2)_xCH_3$ or $-(CH_2)_xC_6H_5$; R_2 is $-(CH_2)_yCH_3$ or $-(CH_2)_yC_6H_5$ and R_3 is $>CH-(CH_2)_z-$ $>CH-(CH_2)_z-C_6H_4-$, $>C_6H_3-(CH_2)_z-$ or $-\underset{\underset{-CHOH}{|}}{C}H(CH_2)_z-$;
n = 0-5 and x+y + z = 6-17). Agent has defined foaming power and is good for removing dirt from aluminium surfaces. 28.5.71 as 126589 (8pp68)

LIOY D25 12122T/08 =DS 2138-038
Isothermic thin film sulphonation of org cpds - using coolant gas stream between fluid reactants and sulphur trioxide
LION FAT & OIL KK 31.07.70-JA-067121
*E19 (28.06.79) *NL7110-603 C07c-139*
Alkylaryl or olefinic hydrocarbons, aliphatic alcohols, alkylphenols or their ethoxylated derivs. are sulphonated or sulphated isothermally in an appts. for film sulphonation. A film-like stream of initial reactant and a parallel stream of SO_3/inert gas is passed through the appts. at 20-50°C. Between these two streams is passed a coolant gas stream, e.g. of air or nitrogen at 10-40°C.

The SO_3/inert gas stream has a velocity of 20-100 m./sec. and pref. a SO_3 content of 3-16 vol.%. The coolant gas has a velocity 2-12 times the velocity of the SO_3/inert gas stream. Formation of by-prods. is reduced. 29.7.71 as 138038 (7pp68)

UNIL D25 58981T/37 #DS 2208-248
Detergent compsns - contg non-ionic detergents and aliphatic esters as solvents
UNILEVER NV 21.02.72-BE-779630 (00.00.70-DT-028727)
*E17 (28.06.79) *BE-779-630 +C11d-03/43*
In parent patent a powdery detergent compsn. comprises, by wt., 5-40% nonionic condensate contg. 5-15 ethylene oxide mols., 25-80% builders and 1-35% of a non-poisonous, hardly volatile, hardly inflammable solvent (I) contg.

aromatic ring(s), and an adsorbent carrier. The wt. of condensate present is greater than that of the solvent present.

In this addn. solvent (I) is completely aliphatic and is (1) an ester of a monobasic acid or a fully esterified polybasic acid contg. 6-24C atoms per mol. (2) an aliphatic ester of a polyvalent alcohol contg. at least 15C atoms or (3) an aliphatic alcohol contg. about 10C atoms. Pref. solvent is di-n-propyl (or butyl) adipate. 22.2.72 as 208248 Add. to 2028727 (4pp68)

MINN D25 63262T/40 =DS 2211-623
Aq cleaning compsn - for treating textiles and imparting water repellency, oil-repellency and soil-repellency
MINNESOTA MINING CO 08.03.71-US-122143
*E19 F06 (28.06.79) *NL7202-574 C11d-03/24 D06m-13/08*

Substrates such as textiles and carpets are cleaned and made oil and water resistant. The treating agent is water based, has a pH >8 and contains (a) a surface active cpd., (b) a fluorine-free salt of a higher fatty acid or a polymer contg. COOH gps., (c) a fluorine-contg. organic cpd. (I), (d) ammonia, morpholine and/or a volatile alkylamine and (e) a zinc or zirconium coordination complex.

Cpd. (I) has the formula $(R_f)_a$-X-$(A)_b$ (where R_f is a 3-20C satd. aliphatic fluorine-contg. gp.; X is alkylene, arylene, alkylide, OXO, NRR', SO_2, CO, S gp. or a combination thereof of valency a+b; R is H or alkyl; R' is alkyl; A is -COOH, $-P(O)(OH)_2$ and/or $-CH_2-P(O)(OH)_2$ and a and b are whole numbers of ≥1). 7.3.72 as 211623 (9pp68)

HENK ★ D25 49313B/27 ★DT 2758-022
Stable liquid catalase compsns. - contg. microbicide as preservative
HENKEL KG AUF AKTIEN 24.12.77-DT-758022 (00.00.77-DT-753679)
A60 E19 (D16) (28.06.79) C11d-03/38

Catalase compsn. according to the Parent Patent comprise aq. solns. or suspensions contg. (a) 0.5-10 wt.% anionic surfactant, (b) 2-50% nonionic surfactant and (c) 500-500,000 Iu/ml of catalase, with an (a) : (b) wt. ratio of 1: 1-100. The improvement lies in the fact that the compsns. also contain 0.0005-1 (pref. 0.05-0.5) wt.% of a microbicide.

The microbicide acts as a preservative (esp. when the compsns. contain no lower alcohol) without impairing the activity of the catalase. 24.12.77 as 758022 Add to 2753679 (6pp367)

UNIL ★ D25 49430B/27 ★DT 2855-776
Stable liq. detergents with low hydrotrope content - based on mixt. of magnesium alkylbenzene sulphonate and alkyl-polyether sulphate and/or nonionic surfactant (NL 26.6.79)
UNILEVER NV 22.12.77-GB-053475
A97 E19 (28.06.79) C11d-01/22 C11d-03/60

Liq. detergent compsns. contain (a) 30-55 wt.% of a detergent mixt. and (b) 0-12 wt.% of a hydrotrope (solubiliser). Specifically, component (a) is a mixt. of (i) a Mg alkylbenzenesulphonate derived from a linear 10-13C alkylbenzene with an av. mol. wt. of 220-250 (pref. 225-245) and a dialkyltetralin (DAT) content of ≥ 3.5 (pref. ≥ 4) wt.%, and (ii) an alkali metal, NH_4 or amine alkylpolyether sulphate and/or a nonionic surfactant.

The compsns. are esp. useful as dishwashing detergents for use in hard or soft water. They are highly concnd., contain only small amts. of hydrotrope, and have good low-temp. stability (clear point < 20, esp. < 10°C). 22.12.78 as 855776 (19pp367)

UNIL ★ D25 49431B/27 ★DT 2855-777
Granular bleach activators - contg. binder comprising sodium tri:phosphate and/or borax and another hydratable salt
UNILEVER NV 22.12.77-GB-053473
E34 (28.06.79) C11d-03/39 C11d-07/60 D06l-03/02

Granular bleach activator compsns. with a particle size of 0.2-2.5 mm, for use in or with detergents and/or bleaches, comprise (a) 55-90 wt.% of at least one activator with a titre of ≥1.5 ml of 0.1N Na thiosulphate in the peracid formation test (US 3177148) and (b) 10-45 wt.% of a binder.

Specifically, the binder comprises a mixt. of (i) Na triphosphate and/or borax and (ii) another hydratable inorganic salt with a water-solubility of > 30 g/100 ml at 60°C, a pH of 6-11 in 10% soln. and no transition point bel
35°C (with the exception of K triphosphate.)

The granules have a high crush strength (> 20g)
disintegrate rapidly in water while still having good
age stability. 22.12.78 as 855777 (17pp367)

SOLV D25 49681A/28 =GB 15
Depolymerising hydroxy:carboxylic polymers to lower polym
heating in gaseous medium, prods. being useful as de
builders and dispersion aids
SOLVAY & CIE 10.01.77-FR-000669
*A97 (A14 A35) (04.07.79) *BE-862-619 C08f-08/50*

Prodn. of a hydroxycarboxylic polymer (I) from a hi
mol. wt. hydroxycarboxylic polymer (II) derived from
same monomer(s) as (I), comprises heating (II) in a
ous medium to 60-240°C. Pref. (I) and (II) contain t
peating unit of formula $[CR_1R_2-C(OH)(COOM)]$ (whe
and R_2 are independently H or opt. OH- or halogen-s
1-3C alkyl; and M is H, alkali metal or NH_4). Pref.
polymers are Na poly-α-hydroxyacrylates.

Process is efficient and loss of prod. by oxidn. o
uncontrolled decompsn. does not occur. 9.1.78 as 0
(6pp393)

KALI D25 58988A/33 =GB 15
Crystalline sodium aluminosilicate prodn. with good wetta
and narrow particle size spectrum, for use as water softe
detergents (BE 7.8.78)
KALI-CHEMIE AG 08.02.77-DT-705088
*E33 (04.07.79) *DT2705-088 C01b-33/28*

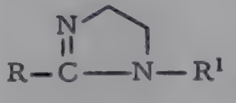
A predominantly crystalline sodium aluminium silica
compsn. is prepd. having good wettability and a narr
grain size spectrum of the molar compsn. $xNa_2O\cdot Al_2$
$ySiO_2\cdot zH_2O$; where x is 0.8-1.2; y is 1.7-2.2 and z i
3.0-10.0.

Prepn. is by mixing intimately a sodium silicate s
with a sodium aluminate soln. in the shortest feasibl
time in the molar ratio 7-10 Na_2O:1Al_2O_3:1.7-2.2SiO_2
250 H_2O, while maintaining a constant molar ratio of
Al_2O_3:SiO_2:H_2O. The amorphous pre-prod. formed is
allowed to crystallise in 1-3 hrs. at 70-100°C, while
stirring to ensure constant molar ratio during crysta
tion.

Compsn. is used as builders in detergents, but wi
the ecological disadvantage of having excess phosphat
19.1.78 as 002287. (4pp931)

ALBR ★ D25 49529B/27 ★GB 20
Purificn. of alkyl imidazoline surfactants - by heating with
cpd. to de:acylate di:amide impurity
ALBRIGHT & WILSON LTD 18.12.78-GB-048961 (22.12.7
053575)
E13 (04.07.79) C07d-233/06

An imidazoline (I) of formula (I) is prepd. by heating



(I)

action mixt. contg. (I) and a di
(II) of formula $RCONHCH_2CH_2N$
R with an amine R_2R_3NH to ≥
R is an aliphatic gp. having ≥4
R^1 is 1-4C opt. substd. alkyl or
enyl; R_2 is opt. substd. 1-4C aliphatic gp.; R_3 is H or
R_2.

(I) are surfactants and as normally prepd. contain
or amts. of (II) which ppte. in storage causing a clou
appearance. (II) are converted to innocuous prods.;
ly to the corresp. amino monoamide which is then cyc
ed to (I), raising the yield. 18.12.78 as 048961. (6p

NEED/ ★ D25 49551B/27 ★GB 20
Agent for removing plastics resin from skin - contg. soap and
metal carbonate
NEEDHAM A 13.12.78-GB-048339 (28.10.77-GB-044894)
A35 E12 (E34) (04.07.79) C11d-09/12

A cleansing agent for the skin comprises an alkali me
carbonate and soap. It contains 10-55wt.% alkali met
carbonate, which is pref. sodium carbonate. The co
removes plastics resins from the skin without use of
vents or damage to the skin.

The compsn. may be in the form of a powder, pas
cream or cake. The soap may be hard or soft soap.
compsn. may include other ingredients e.g. antisepti
lanolin and olive oil. 13.12.78 as 048339. (2pp955)

★ D25 49737B/27 ★J5 4064-504

e slurry for detergent - obtd. by dispersing fine zeolite les in aq. soln. of sodium silicate

PPON CHEM IND KK 01.11.77-JA-130271

3 (24.05.79) C11d-03/12

slurry is prepd. by dispersing fine zeolite granules ng Ca^{2+} ion-bindability in aq. soln. of Na silicate hav-he molar ratio, SiO_2/Na_2O of 2.0 to 3.5., in amt. of > 20-45) wt.%. The supernatant forming rate is pref. < after allowing to stand for 24 hrs. under ordinary o.

he zeolite is hydrated or anhydrous fine crystalline or rphous fine granules of formula: $Na_2O.Al_2O_3$ (1.5-2.5) .nH_2O. Opt. an alkali metal polyphosphate having ar ratio, M_2O/P_2O_5 of 0.9 to 2.0, e.g. Na hexameta-sphate, sodium pyrophosphate, sodium tripolyphosph- etc. may be added to the slurry to elevate dispersib-. 1.11.77 as 130271 (5pp34)

VA- D25 60906X/32 =J7 9015-034

ace active agents - comprising fatty acid diethanolamides

KAWAKEN FINE CHEM 24.12.74-JA-147583

*E16 (12.06.79) *J51073-988 A61k-07/06 C11d-01/66*

surface active agents consists of the cpd. derived n (a) the compsn. consisting of 8-10C fatty acid in nbiation with 14-16C fatty acid and (b) diethanolamine. The foam generating power and the stability of the foam improved as compared to those properties of the y acid diethanolamide prepd. using any one of the indi-ual fatty acid which constitutes the mixed fatty acid. 12.74 as 147583 C11d-1/66, A61k-7/06, (12.6.79) WAKEN FINE CHEM (5pp) (J5 1073988)

Y D25 58532Y/33 =J7 9015-276

gh concn. solns. of organic sulphate surfactant prodn. - by utralising the sulphate with excess alkali

LION FAT & OIL KK 27.12.75-JA-157011

*A97 E34 (13.06.79) *J52080-285 C11d-01/12*

e soln. is obtd. by neutralising sulphuric acid ester of gh grade alcohol or polyoxyethylenealkylether to a soln. sulphuric acid ester salt in the presence of alkali sub-ance in amt. 1.1-1.6 times that required to neutralise e ester and adding <55% of water to the neutralising pro-ict. The alkali substance is caustic soda, potassium hy-roxides, or sodium carbonate. The soln. has a low vis-osity.

Prod. is used in powdered detergents. 27.12.75 as 57011 C11d-1/12 (13.6.79) LION FAT & OIL KK (5pp) 5 2080285)

AOS D25 79425Y/45 =J7 9015-277

onc. fluid solutions of sulphated alcohol surfactants - contg. odium sulphate, surfactant and water

KAO SOAP KK 06.07.76-JA-080181

*E12 (13.06.79) *BE-856-406 C11d-01/12*

surfactantant compsn. comprises an aq. soln. or slurry f 4-14% of Na_2SO_4 and 96-86% of a mixt. of $\geq$1 surfactant $R(OCH_2CH_2)nOSO_3M$ (where R is 10-18C alkyl, the average C content being 12-15, n is 0-5, and M is Na or K) and water. The ratio of surfactant to water is 1:2.4-1:1 and the viscosity of the compsn. is $\ngtr$10,000 cps. measured by Brookfield viscometer at 40°C and 30 rpm.

The compsn. is prepd. by sulphating the appropriate alcohol with SO_3 or chlorosulphonic acid, neutralising with aq. alkali and adding sulphuric acid, sodium sulphate or an aq. soln. contg. these to achieve the above concentrations.

The compsn. has a high concn. and very good fluidity thereby decreasing transport, mfr., drying costs, etc. Previously in order to reduce the viscosity it has been necessary to use flammable solvents such as methanol or ethanol. 6.7.76 as 080181 C11d-1/12 (13.6.79) KAO SOAP KK (7pp) (J5 3005089)

BADI D25 62264W/38 =J7 9015-289

Stable low-viscosity polymer dispersions contg. polyols - and polymers with hydroxyl gps., for polyurethane prepn

BASF WYAN 29.04.74-US-465072

*A25 (A18) (13.06.79) *BE-828-525 C08g-18/63 C08l-71/02 C08l-101 + C08l-67 C08l-75/04*

result by mixing together: (a) 45-95% of a polyol having an equiv. wt. 500-10,000 and (b) 55-5% of a finely divided solid polymer contg. OH gps., obtd. by polymerising in the presence of a free-radical forming catalyst and an organic solvent: (1) a major amt. of ethylenically unsatd. monomer(s), and (2) a minor amt. of an organoc cpd. with terminal OH gps. contg. 1-8 OH gps. having an equiv. wt. 500-1000 and con contg. a polymerisable C=C bond.

Polyurethanes prepd. from these dispersions have superior tensile strength and sheet strength compared with polyurethanes, obtd. from dispersions prepd. in situ. 30.4.75 as 051628 (clg. 29.4.74-US-465072) C081-101/00 71/02, 75/04, 67/02, C08g-18/63 (13.6.79) BASF WYAN (14pp) (J5 1017924)

KHIM= ★ D25 50387B/27 ★SU -622-903

Synthetic detergent cleaning power determination - includes specified simultaneous washing of clean and soiled fabric, useful in industrial garment cleaning compsn. mfr.

KHIMPROEKT 19.12.75-SU-302928

(18.07.78) D06f-35

Detergent props. of formulations are estimated by using the soaps in aq. media contg. both articles carrying natural soiling and samples of clean-non-soiled fabrics. The results for both are then compared.

The method provides a more accurate estimate of the cleaning power detergent formulation pref. for cleaning overalls, industrial garments etc.

Bavika, L.I., Zhulinskaya, V.A., Shevchuk, I.A. et al Bul. 33/5.9.78. 19.12.75. as 302928 (3pp314)

JOHS ★ D25 50731B/27 ★US 4158-553

Non-scratching liquid scouring compsn. - contg. hard abrasive and soap to protect soft surfaces

JOHNSON S C & SONS INC 16.01.78-US-869416

E12 (E16) (19.06.79) C11d-09/02

A liquid scouring cleanser comprises 2-10 wt.% of a soap of formula RCOOM, where M is Na, K or $(R_1)mHnN$, m an n are 1, 2 or 3, m+n = 4, R_1 is 1-4C alkanol, and R is stearyl, oleyl or mixts. of these; 25-35 wt.% of an abrasive of Mohs hardness above 3; 1-7 wt.% of anionic surfactant and/or nonionic surfactant, 0.2-10 wt.% thickener, an water. The compsn. has ratio of soap to abrasive in the range 10:1 to 4:1, and pH 7.0-9.5.

Due to the cushioning effect of the soap, the compsn. does not scratch relatively soft surfaces, e.g. aluminium, even though it contains a hard abrasive. It is very effective in removing food encrustations, and leaves a protective film. 16.1.78 as 869416 (3pp955)

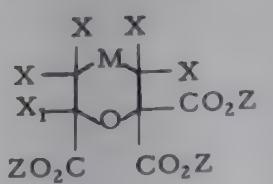
MONS ★ D25 50785B/27 ★US 4158-635

Detergent compsns. for dishwashing machines etc. - contg tetra:hydro: pyran or 1,4-dioxan poly:carboxylate as builder, water softener and scale dissolver

MONSANTO CO 10.10.78-US-950182 (05.12.77-US-857070)

E13 (E12) (19.06.79) C11d-03/20 C11d-07/54

Detergent compsns. contain 0.5-95% by wt. water-soluble anionic, nonionic, zmphoteric, or switterionic surfactant (I), and 1-95% by wt. of a polycarboxylic acid deriv. (II) (where M is 0 or CY_2; Y is H or 1-4C alkyl; X and X_1 are H, 1-4C alkyl or CO_2Z; Z is H, R, alkali metal, NH_4, or trialkanolammonium; R is opt. branched 1-20C alkyl).



(I)

(II) are detergent builders, threshhold agents, Ca and Mg sequestrants, and scale dissolvers, and are useful for improving the cleaning ability of the surfactants (I). (II) are also useful in softening water, etc. 10.10.78 as 950182 (9pp478)

KEWA- ★ D25 50790B/27 ★US 4158-644

Hard surface cleaner and grease remover - contg. synergistic combination of nonionic, quaternary ammonium and betaine surfactants

KEWANEE IND INC 17.03.78-US-887785

A97 E16 (A25 E14) (19.06.79) C11d-01/90 C11d-07/32

A hard surface detergent compsn. comprises (a) a condensate of nonyl phenol with av. 9.5 moles ethylene oxide and condensate of octyl phenol with 9-13 moles ethylene oxide; (b) alkyl dimethyl benzyl ammonium chloride and/or alkyl dimethyl ethylbenzyl ammonium chloride (12-18C alkyl); (c) acylamido-propyl dimethylamino acetic acid or its salts, the acyl gp. being derived from coconut fatty acids. The ratio of components (a), (b) and (c) is 4. 5:3:1 by wt., and their total concentration is 0. 1-4% by wt.

The combination of the 3 components in the above ratios is more effective than any one or two alone, and more effective than dispersions of solvents, e. g. 2-butoxyethanol.
17. 3. 78 as 887785 (4pp955)

BATT D25 44432B/24 =WP 7900-346

Automatic washing machines - with integral electrolytic peroxide generators, for efficient bleaching action without subsequent pollution problems

BATTELLE MEMOR INS (PORT/) 06.12.77-CH-014876
*E36 F06 J03 (28.06.79) *EP---2-423 C25b-01/30 D06f-35*
D/S N(JA,US).

Process for washing and bleaching textiles using an aq. detergent bath contg. a detergent which is substantially free of bleaching agent is claimed, in which the bleaching action is obtd. by adding to the bath, at a selected time, an oxidising alkaline aq. soln. contg. hydrogenoperoxide ions. The alkaline soln. is pref. one produced immediately before its incorporation into the bath by an electrolytic method by reduction of O_2 in an alkaline medium.

The H_2O_2 is produced in dilute solns. close to the place of use. The dilute soln. does not have a deleterious effect on enzymes being used in the same soln. to bring about bacteriological cleaning, unlike the more concentrated commercially produced solns. The soln. does not have to be stored. Hence improved washing and bleaching of the textiles is brought about.
4.12.78. as CH 0043 (40pp396).
(F) ISR: FR 1335541. US 3969201; US 3616442.

BATT D25 44432B/24 =WP 790

Automatic washing machines - with integral electrolytic per generators, for efficient bleaching action without subse pollution problems

BATTELLE MEMOR INS 06.12.77-CH-014876
*E36 F06 J03 (28.06.79) *EP---2-423 C25b-01/30*
DS: N(US) + E(CH, DT, FR, GB, SW).

A method is claimed for preparing an aq. treating soln contg. at least hydrogenoperoxide ions and hydroxyl i in predetermined concns. variable within a given rang of values such that the soln. has a total concn. of H_2O_2 of 0.1-10 g/l and a pH < 14. The process consists of using an electrolytic cell comprising a porous cathod and circulating a pressure gas contg. O_2 and an aq. so which is slightly alkaline in contact with the cathode s as to form the ions by redn. of O_2. The circulation is continued until the soln. reaches the predetermined concns., and the soln. is then removed for use.

As a bleaching soln., e.g. for paper pulp, textiles,

The process produces the solutions in the strength required directly for use, rather than in high concns. which have to be diluted. The hydrogen peroxide can produced in situ where required rather than in bulk commercial plant.
4.12.78. as CH0044 (34pp396).
(F) ISR: US 3969201; US 3616442.

See Also

D17 DS 2155941 D24 DT 2851542

CPI INDEXES

ERTING PATENTEE INDEX (II)

ekly by section and overall, lists all current patents in entee code order and, within a given patentee, in earliest rity date order. The first line gives patentee code, iest priority date, patentee name, CPI classes and finally current patent number. The second line gives the first t of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
   Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
   Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

PI CLASS INDEX (IV)

eekly only. Headings are all the CPI asses within the section to which an erting Bulletin relates, arranged in merical order. Posted under each class ading is a list, in country then patent mber order, of all basic or equivalent ocuments referenced or cross-ferenced under that heading.

```
    M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

ASIC NUMBER INDEX (V)

Veekly by section and overall, lists all ntries by accession number. Each eading consists of the accession umber in bold, followed by the CPI ection letters. There then follows a st of all the family members, ommencing with the basic and nishing with the current week's atent. For each family member the CPI week of issue is quoted, and a lus sign indicates that a multiple riority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                                 49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                            49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                                 48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distinguish accepted West German specifications (DAS) from t unexamined applications (OLS) which are given the norm DT code. in the case of Japan J5 represents t unexamined applications, and J7 the examined of t present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7
Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

19.05.76 AS AZERB BOTANICAL D18 *SU -622-842
of tanning substances from pomegranate rind - 50327B/27
1.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *DT 2855-114
oxy-4-acyl or alkyl fortimicin derivs. - 49412B/27
1.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *DT 2855-136
acterial antibiotic fortimicin B derivs. - 49414B/27
1.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *DT 2855-148
O-methyl-2-N-acyl fortimicin derivs. - 49416B/27
1.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *DT 2855-175
ostd. 6-epi-fortimicin A and B derivs. - 49417B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2010-805
ostd. 6-epi-fortimicin A and B derivs. - 49417B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2010-809
-O-methyl-2-N-acyl fortimicin derivs. - 49416B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2010-810
:oxy-4-acyl or alkyl fortimicin derivs. - 49412B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2010-814
bacterial antibiotic fortimicin B derivs. - 49414B/27
21.12.77 ABBOTT LABORATORIES B03 D22 E13 =GB 2010-815
cyl or alkyl fortimicin derivs. - 47154B/26
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *GB 2010-823
eoxy-N-substd.-fortimicin A and B cpds. - 49527B/27
21.12.77 ABBOTT LABORATORIES B03 D22 E13 =GB 2010-838
eoxy-fortimicin B and its precursors - 47152B/26
= 01.12.76 AEROPROEKT CIVIL AVIATIO D15 *SU -622-764
port surface run/off rain water purificn. - 50250B/27
- 16.11.77 AGA HEATING AB D15 J01 =NO 7803-841
ary biological filter - 39358B/21
23.12.75 AGENCY OF IND SCI TECH D15 F09 J01 =J7 9015-279
absorbing material - 56392Y/32
07.11.77 AGENCY OF IND SCI TECH D15 H03 *J5 4066-387
-collecting material for use on sea - 50042B/27
08.11.77 AGENCY OF IND SCI TECH D16 *J5 4066-568
ating garbage-contg. dust - 50074B/27
11.10.77 AMER HOSPITAL SUPPL CORP A89 B04 D16 J04 (A96) =J5
096
termn. of isoenzyme(s) having different electric charges - 27886B/15
19.02.70 AIR LIQUIDE L' D13 =IT 1030-522
ffee extract manufacture - 57707S/36
18.08.72 AJINOMOTO KK B05 D16 E16 =IT 1030-538
ysine prodn - 61502U/41
07.08.73 AJINOMOTO KK B04 D16 =J7 9014-671
Nucleotide microbial prodn - 54754W/33
03.09.73 AJINOMOTO KK D13 E12 =J7 9014-669
ystallising monosodium glutamate pentahydrate - 38073W/23
12.10.73 AJINOMOTO KK B02 D16 =IT 1030-707
osinic acid by fermentation - 48148W/29
12.10.73 AJINOMOTO KK B02 D16 =IT 1030-708
uanylic acid by fermentation - 48149W/29
24.10.73 AJINOMOTO KK D16 E13 =J7 9014-673
uanosine fermentation production - 04282W/03
G= 26.01.77 AS KAREL GEOLOGY D15 E19 *SU -622-765
rganic cpds. elimination from aq. effluents - 50251B/27
/ 23.12.77 ALBIEZ E D17 G05 *DT 2757-630
rticle printing method - 49268B/27
R 22.12.77 ALBRIGHT & WILSON LTD D25 E13 *GB 2010-829
urificn. of alkyl imidazoline surfactants - 49529B/27
A 21.05.73 ALFA LAVAL AB D13 (D16) =IT 1030-575
rotein concentrate for human consumption - 71222V/41
C 18.05.67 ALLIED CHEMICAL CORP B05 D13 E21 =IT 1030-507
- 3-alkyl-4-sulpho-6-alkoxyphenyl azo -2-naphthol-6 - 38650F/00
AN 02.02.72 AMANO SEIYAKU KK D16 J01 =J7 9014-677
lginic acid extraction - 10151V/06
FP- 23.09.70 AMF PADOVAN SPA D16 =IT 1030-517
Vine making accelerating device - 52450T/33
TI- 24.08.77 ANTICIMEXBOLAGEN AB D15 *SW 7709-496
Stepless controlled effluent water flow to a treatment unit - 50685B/27
CP 29.11.72 ARCHIFAR IND CHIM B02 D16 =J7 9014-676
Highly pure rifamycine B prodn. - 30763V/17
AH 26.10.73 ASAHI CHEMICAL IND KK B04 C03 D16 =J7 9014-680
Antibiotic S15-1 prepd. by fermentation - 32775W/20
AH 31.10.77 ASAHI CHEMICAL IND KK A97 D13 *J5 4064-650
Additive for paste or cream food - 49821B/27
AO 02.06.76 ASAHI KOGAKU KOGYO D21 L02 =GB 1548-066
Apatite bodies for use as bone or tooth prostheses - 88587Y/50
HL 20.11.70 ASHLAND OIL INC D13 =IT 1030-652
Emulsifier for foodstuffs to be frozen - 39575T/25
KO- 16.11.77 ASKO-UPO OY D15 J01 =NO 7803-841
Rotary biological filter - 39358B/21
KO- 16.11.77 ASKO-UPO OY D15 J01 =SW 7811-765
Rotary biological filter - 39358B/21
JCO= 19.05.76 AS UKR COLLOID CHEM D17 E16 *SU -623-870
Purificn. of beet sugar solns. - 50621B/27
VDO/ 03.09.73 AVDONIN YU A A97 D15 E14 (A25) *SU -623-835
Selective removal of aromatic amine(s) etc. from waste water - 50587B/27

BADI 29.04.74 BASF WYAN A25 D25 (A18) =J7 9015-289
Stable low-viscosity polymer dispersions contg. polyols - 62264W/38
BADI 19.11.77 BASF AG C03 D13 =DK 7805-124
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22
BADI 19.11.77 BASF AG C03 D13 =SW 7811-754
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22
BAEN- 26.11.75 TETRA-W BAENSCH U D15 =CA 1056-963
Elimination of nitrogen cpds. from waste water - 36276Y/21
•BALL/ 16.03.78 BALLA A D13 *DL -134-909
Butter making machine - 49078B/27
BARN- 11.12.75 BARNANGEN AB B05 D13 E17 =DS 2654-597
Sorbitol and xylitol compsn. for sweetening edible prods. - 29152Y/17
BATT 06.12.77 BATTELLE MEMOR INS D25 E36 F06 J03 =WP 7900-346
Automatic washing machines - 44432B/24
BATT 06.12.77 BATTELLE MEMOR INS D25 E36 F06 J03 =WP 7900-347
Automatic washing machines - 44432B/24
BAUM- 15.12.77 BAUMGARTNER PAP D18 F04 =NL 7811-936
Cigarette filters prodn. - 29786B/16
BECI 28.09.77 BECKMAN INSTRUMENTS INC B04 D15 J04 (D16) =FR 2404-847
Detecting toxicity in aq. liquids by photometry - 10012B/06
•BEEH/ 23.08.76 BEEHLER V D D15 J01 *US 4158-629
Dynamic self-cleaning liq. filter - 50780B/27
•BIOL- 15.07.77 BIOLOGISK AVFALLSHA D15 *SW 7708-243
Rectangular biological effluent treatment vessel - 50680B/27
BIOR- 09.04.73 BIO RESPONSE INC B04 D16 =IT 1030-569
Increasing antibody prodn by tapping lymph - 73309V/42
BIOR- 20.06.75 BIO RES CENT D16 E17 =CA 1056-749
Microbial prepn. of longchained alpha: oxyacids from corresp. olefins - 11767Y/07
BLAN/ 22.09.77 BLAND B J C03 D13 E17 =J5 4064-651
Particulate compsn. for preserving agricultural products - 87894A/49
BLEN 13.03.70 BLENDAX WERKE SCHNEIDER A11 D21 G03 (A81 A96) =IT 1030-515
Denture adhesive contg cellulose derivs - 52843S/32
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =DT 2839-677
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BOEF 05.05.71 BOEHRINGER MANNHEIM GMBH B04 D16 =SW 7900-292
Isolation of creatinine amido hydrolase and creatine - 74816T/47
BOEF 04.10.73 BOEHRINGER MANNHEIN B04 D16 J04 =IT 1030-641
Enzyme kinetic substrate determn - 28444W/17
•BORA- 16.12.77 BORAX HOLDINGS LTD A97 C03 D22 F09 *DT 2853-557
Synergistic wood preservative compsn. - 49370B/27
BRAU- 05.07.77 BRAUN K O KG A96 D22 F07 =GB 2010-933
Readily torn elastic bandage for surgical and sports usage - 80224A/45
BRBE- 30.09.77 BRITISH BEEF CO D12 =FR 2404-484
Conveyor system for animal carcasses - 28273B/15
BRBL 05.05.77 BRAUNSCHWEIG MASCH D17 . =US 4158-573
Coned basket for continuous centrifuge partic. for sugar prodn. - 10380B/06
BVGY 10.01.77 BORSODI VEGYI KOMB A14 D15 =DL -135-282
High-salt content industrial waste concn. - 51837A/29
•BYKG 24.12.77 BYK GULDEN LOMBERG D21 *DT 2757-937
Skin-care cosmetics - 49298B/27

CABA/ 22.12.77 CABARDO A M B06 D21 #DT 2757-497
Periodontal powder for treating bleeding gums and gingivitis - 24299B/13
•CANA 27.02.78 CANADIAN PAT & DEV LTD C03 D13 *US 4158-656
Thio-glucoside and phenolics removal from oil seed materials - 50797B/27
•CAND- 19.12.70 CANDY GUM SPA D13 *IT 1030-516
Chewing gum cigarette - B/27
CANP 06.03.72 CANADA PACKERS LTD B04 D16 =J7 9014-647
Isolation and refining of kallikrein - 18403V/10
•CASS 23.12.77 CASSELLA FARB MAINK AG A87 D18 E19 F06 *DT 2757-582
Compsn. for treating cellulosic textiles and leather - 49263B/27
CELL- 14.12.77 CELLCOR CORP CAN D17 (D13) #NL 7713-838
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16
•CEPA 30.03.76 CELL-PAPER IND RES D16 F09 L02 M22 *SU -622-910
hydrophobic adhesive mfr. from by/product of sulphate cooking - 50394B/27
CERF 18.07.75 CENT EURO RECH MAUVERNAY D15 =CA 1056-731
Plants active constituents extraction - 18787Y/11
•CHAJ/ 05.01.79 CHAJUSS D D13 *BE -874-522
Health additive for human food comprising defatted soya - 49058B/27
CHAL 08.12.77 CHAMBON LTD D17 =GB 2010-903
Infrared preheat of sugar lumps between moulding and drying - 24007B/13
CHAR/ 21.11.77 CHARM S E B04 D13 J04 =DK 7805-168
Detection of antibiotics in liquid samples e.g. milk, body fluid - 24010B/13
CHEM 28.09.77 CHEM WERKE HULS AG D25 E17 =FR 2404-671
ether sulphate(s) - 25905B/14

CIST 12.12.68 CORNELIUS CO D13 =IT 1030-510
Carbonated drinks prodn - 17356S/10
• COLG 20 12.76 COLGATE PALMOLIVE CO D22 *US 4158-363
Disposable diaper with extensible fastener - 50706B/27
COMP 10.10.73 SAINT-GOBAIN INDUSTRIES D22 F04 L01 =CA 1056-568
Mineral fibre panel mfg plant with wet scrubber - 27483W/17
• CONN- 08.04.76 CONN CHEM LTD D25 E34 *CA 1056-687
Agglomerated dishwashing detergent prepn. - 49069B/27
COOR- 22.12.77 COORS FOOD PROD CO D13 (D16) =GB 2010-657
Edible yeast product used as cocoa substitute - 47147B/26
CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =J5 4064-655
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19
COSD 18.01.74 COSDEN TECHN INC D23 E14 =CA 1056-852
Phenyl-acetaldehyde prepn. from styrene oxide - 39247W/24
• CSIN= 09.11.72 CONS IND SANITATION D15 *SU -623-834
Slurry thickener used in water clarification - 50586B/27

DAHL/ 16.03.73 DAHLEN J D23 =DS 2313-224
Oil seed heat treatment - 68109V/39
DAII 11.09.71 DAIICHI KOGYO SEIYAKU D24 =DS 2244-310
Detergent compsn for use in washing machines - 17591U/13
• DAIK 01.11.77 DAIKIN INDUSTRIES KK A97 D15 J01 (A14) *J5 4065-180
Sepn. of oil from oil-in-water emulsion - 49879B/27
DALM- 14.09.76 DALMOR POLOWOW DALE D12 =DS 2741-380
Treating shell fish esp. krill to obtain the whole muscles - 04209A/03
DALM- 03.11.76 DALMOR POLOWOW DALE D12 =US 4158-249
Machine to extract edible muscles from crustacea - 19714A/11
• DANT- 28.09.77 DANTO TRICOTS ELAST D22 *FR 2404-428
Gaiters to protect a horses legs from bruising or sprain - 49455B/27
DCAF 07.07.69 DCA FOODS INDS INC D13 =IT 1030-615
Onion rings prodn - 19423S/11
DCAF 07.07.69 DCA FOODS INDS INC D11 =IT 1030-616
Shaped food prods - 11642T/08
• DEAK 05.12.77 AKAD WISSENSCHAFT DDR D16 *DL -135-212
Fermentation substrate selection - 49168B/27
• DEAK 29.12.77 AKAD WISSENSCHAFT DDR A97 D25 E19 *DL -135-288
Aq. cleansing soln. for hard surfaces - 49194B/27
• DEAK 10.04.78 AKAD WISSENSCHAFT DDR D16 E17 *DL -135-213
Microbial aerobic pyruvate synthesis using Xanthomonas bacteria - 49169B/27
DECI- 06.05.76 DEC INT INC D13 =CA 1056-757
Cheese processing machine - 83268Y/47
DECT 10.02.75 DECO IND INC A35 D15 H09 =GB 1547-961
Hydrocarbon prods mfr - 48054X/26
DECT 14.03.75 DECO IND INC A35 D15 H09 =GB 1547-962
Hydrocarbon prods mfr - 48054X/26
DEGS 27.01.77 DEUTSCHE GOLD & SILBER A21 D14 E14 H09 (A41 E17) =BR 7708-109
Treating waste water contg. phenol cpds. and opt. formaldehyde - 56790A/32
DEGS 18.11.77 DEUTSCHE GOLD & SILBER D21 M26 =SW 7811-895
Yellow gold alloy - 22149B/12
DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 =GB 2010-798
Deodorising industrial and urban waste water sludges - 47180B/26
• DERO/ 30.09.77 DEROUINEAU R D22 E36 *FR 2404-437
Deodorising device for water-closets etc. - 49456B/27
DESS/ 16.11.70 DESSART L D15 =DS 2156-176
Automatic water softener - with regeneration tank - 77458S/49
DIEM- 07.03.77 DIEMME SPA D16 =US 4158-332
Must press consisting of perforated cylinder and inlet funnel - 67351A/38
DOWA 14.12.77 DOWA MINING CO LTD D15 J01 M25 =DT 2853-516
Removal of arsenic from solns. of sulphuric acid - 29781B/16
• DOWC 14.12.77 DOW CHEMICAL CO A97 C03 D22 F06 (D15 F09) *DT 2854-078
Aq. antimicrobial compsns. based on halogenated amide - 49389B/27
DRAG- 29.05.69 DRAGOCO SPEZIALFAB D13 =IT 1030-514
Aroma concentrates from spices vegetables - 88411R/47
DSOM- 12.12.77 DSO MLECHNA PROM D13 #NL 7713-820
Accelerating white cheese prodn. from milk - 45884B/25
• DSOM- 14.12.77 DSO MLECHNA PROM D13 *NL 7713-819
Appts. for mechanically salting fresh pickled cheese - 50224B/27
DUKU 21.12.77 DUISBURGER KUPFERHUTTE D15 M25 (M14) =DT 2756-924
Processing used ammoniacal copper etching solns. - 47476B/26
DYNL 22.12.77 DYNAPOL B05 D13 E14 (E12) =DT 2855-829
4-3-Sulpho-4,5-di:hydroxy-hexyl:oxy 4'-alkoxy di:hydro-chalcone(s) - 31634B/17
DYNL 22.12.77 DYNAPOL B05 D13 E14 (E12) =GB 2010-826
4-3-Sulpho-4,5-di:hydroxy-hexyl:oxy 4'-alkoxy di:hydro-chalcone(s) - 31634B/17

ECHE/ 08.04.74 ECHEGARAY M A D14 #IT 1030-568
Low-temp. preservation of proteinaceous substances - 20379W/12
EICH/ 14.04.75 EICHLER D C03 D13 =DL -118-797
Increased nutrients output in animal excreta processing - 40158X/22
• ELEC 28.09.77 ELECTRICITE DE FRANCE D15 (D12) *FR 2404-605
Water purificn. by electro-oxidn., electro-redn. and filtration - 49
ELEL- 05.12.73 ELELMEZESIPARI TERV D12 =SU -623-495
Poultry-plucking machine - 42077W/25
ELPA 19.12.73 EL PASO PRODUCTS CO D23 E15 (D13) =CA 1056-8
3-Alkyl-cyclopentane-1,2-diones prepn - 32506W/20
EPPE- 04.10.73 EPPENDORF GERATEBAU B04 D16 J04 =IT 1030-64
Enzyme kinetic substrate determn - 28444W/17
ERAP 29.09.77 ELF AQUITAINE D15 =FR 2404-804
Sludge incineration process - 28289B/15
ESSO 15.12.77 EXXON RES & ENG CO D15 J01 =NL 7812-233
Regeneration of anion and cation exchanger resins - 47439B/26

• FABB/ 30.09.77 FABBRI F D16 *FR 2404-473
Sprinkling wine through marc in fermenting vessel using flinger
49463B/27
• FAEM- 24.11.67 FAEMA SPA D13 *IT 1030-504
Solid and semi-liquid coffee product - B/27
FARB 30.03.72 BAYER AG A96 B04 D16 (A14) =IT 1030-795
Water-insoluble protein prepns - 62769U/42
FARB 21.03.74 BAYER AG B03 C02 D13 =DS 2462-836
Microbial amino-sugar cpds as feed-additives - 67509W/41
FARB 20.08.75 BAYER AG C02 D16 =US 4158-608
Nikkomycin from streptomycin tendae - 79351X/43
FARB 13.10.77 BAYER AG D25 E23 F06 =J5 4064-528
Optically-brightening bis:triazolyl stilbene(s) prodn. - 49880A/28
FARB 21.10.77 BAYER AG C01 D22 =J5 4066-689
O-pyrimidinyl-phosphorus acid ester and amide derivs. - 33536B/1
FARB 15.12.77 BAYER AG B07 C03 D16 E19 =NL 7808-586
Stable microorganism preparations for degradation of organic ma
20031B/11
• FARB 22.12.77 BAYER AG B02 C02 D13 E13 *DS 2757-483
Piperonylidene-crotonic acid amide derivs. prodn. - 49201B/27
• FARB 24.12.77 BAYER AG A41 D21 E17 G02 (A14 G03) *DT 2758-01
Prepn. of beta-hydroxy ester of (meth)acrylic acid - 49312B/27
FARF 18.05.73 VEB CHEMIEKOMB BITT C01 D22 E19 (C03) =DL -
848
Synergistic antimicrobial compsns - 73005V/42
FARH 19.12.77 HOECHST AG A97 D25 E11 =NL 7812-220
Washing powder with improved detergent auxiliary - 45714B/25
• FARH 22.12.77 HOECHST AG A96 B04 D16 *GB 2010-847
Prodn. of insulin producing cell line - 49536B/27
FATE- 03.10.77 FATER SPA D22 F04 =FR 2404-996
Absorbent sanitary tampon of hydrophilic cellulose fibres - 10024B/
• FATS= 25.02.77 FATS RES INST D23 *SU -623-862
Refining cacao husk oil - 50613B/27
• FEPU 18.02.77 DONETSK FERR METAL D15 J01 *SU -622-766
Removing oil from rolling mill waste water - 50252B/27
• FERM= 28.02.77 FERMENTATION PROD D16 *SU -623-864
Aq. nutrient for culturing Aspergillus awamori-22 fungal str
50615B/27
• FERR= 18.10.74 FERR METAL ORE ENRI D15 J01 *SU -623-832
Thickener-clarifier separating solids and liquids - 50584B/27
FIND- 15.09.70 PROD FINDUS SA D12 =IT 1030-525
Quick-frozen food - 17847T/11
FIRM 06.06.75 FIRMENICH SA B05 C03 D13 E15 (D23) =DS 2624-654
Perfumes and flavourings contg. cyclobutane derivs. - 97397X/52
• FLEC/ 05.06.78 FLECKENSTEIM A J D15 *US 4158-628
Water softener treatment tank - 50779B/27
FMCC 04.01.74 FMC CORP D15 E13 =IT 1030-962
Waste water contg. chlorinated isocyanurates - 47686W/29
FMCC 03.10.77 FMC CORP D25 E14 F06 (E13) =FR 2404-695
Low temp. bleaching of soiled and/or stained fabrics - 70479A/39
FMCC 03.10.77 FMC CORP D25 E19 =FR 2404-696
Di:sulphone derivs. - 78106A/43
FMCC 03.10.77 FMC CORP D25 E12 F06 =FR 2404-697
Low temp. bleaching of fabrics with peroxy cpds. - 07600B/04
FMCC 03.10.77 FMC CORP D25 E13 F06 =FR 2404-698
Bleaching compsns. contg. (N)-sulphonyl-imidazole(s) - 70480A/39
FMCC 03.10.77 FMC CORP D25 E19 F06 =FR 2404-699
Low temp. fabric bleaching with per-oxygen cpds. - 25655B/13
FMCC 03.10.77 FMC CORP D25 E19 =FR 2404-700
Activator for per:oxygenated bleach - 25936B/14
FMCC 03.10.77 FMC CORP D25 E11 F06 =FR 2404-701
Organo:phosphorus azide per:oxygen textile bleach activato
83827A/46
FMCC 03.10.77 FMC CORP D25 E23 F06 (E14) =FR 2404-702
Aromatic sulphonyl azide(s) - 78107A/43
FMCC 03.10.77 FMC CORP D25 E13 F06 =J5 4064-181
Bleaching compsns. contg. (N)-sulphonyl-imidazole(s) - 70480A/39
FMCC 03.10.77 FMC CORP D25 E14 F06 =J5 4064-182
Phenyl sulphonate ester cpds. - 91353A/50
FMCC 03.10.77 FMC CORP D25 E14 F06 (E13) =J5 4064-183
Bleaching compsns. contg. aromatic sulphonic anhydride(s) - 70478A/

3.10.77 FMC CORP D25 E23 F06 (E14) =J5 4064-184
natic sulphonyl azide(s) - 78107A/43
06.05.77 FONTAINE R R G D11 =FR 2404-400
s. for inverting pivoted bread balance pans - 65375A/37
12.10.76 FOOT-MOUTH DISEASE D16 *SU -623-869
. for disaggregating kidney tissue cells - 50620B/27
3.02.77 FORSTER H AG D13 =DT 2757-644
preservation of beverages fruits and vegetables - 80544A/45
09.12.69 FROMAGERIES BEL-LA VACHE D13 =IT 1030-518
corporation of soluble whey proteins - 40745S/24
18.03.77 FUR FARMING RABBIT D18 *SU -622-840
for turning fur-skins inside out - 50325B/27
10.02.77 FUR IND RES INST A97 D18 G02 *SU -622-844
psn. for frost-resisting finishing pelt skins - 50329B/27

13.10.77 BRITISH GAS CORP D15 J01 *J5 4064-072
atment of effluent solution - B/27
23.12.77 GASPAREC D D15 *DT 2757-573
vated sludge sewage treatment - 49260B/27
30.01.70 GAF CORP A96 D21 (A14) =IT 1030-520
metics contg vinyl pyrrobdane quaternaryco polymers - 52067S/32
08.11.77 GENENTECH INC B04 D16 =SW 7811-458
ombining plasmid for transformation of bacteria - 35257B/19
08.11.77 GENENTECH INC B04 D16 =SW 7811-460
ombining plasmid for transformation of bacteria - 35257B/19
08.11.77 GENENTECH INC B04 D16 =SW 7811-461
ombining plasmid for transformation of bacteria - 35257B/19
25.02.76 GENERAL MILLS CHEM D13 =CA 1056-643
eze thaw stabilisers for ice cream etc. - 96194X/51
24.03.77 GENERAL FOODS CORP A97 D13 #GB 1547-941
acidulent powder compsns. useful in foodstuffs - 36173Y/20
21.07.77 GENERAL FOODS CORP D13 *SW 7708-438
e grinding of roast coffee beans - 50682B/27
28.09.77 GENERAL FOODS CORP D13 =FR 2404-404
caffeination of tea and coffee extracts - 68805A/38
29.03.74 GENERAL SIGNAL CORP D15 =CA 1056-964
uid esp. effluent is aerated and stirred - 69273W/42
09.09.74 GIVAUDAN LTD D16 E15 =CA 1056-854
mulones e.g. cohumulone from oxidation of desoxy cpds - 22639X/13
C- 21.11.77 GLACE-BOLAGET AB D13 =DK 7805-166
e cream cone closure appliance - 40870B/22
V= 04.04.77 GLAVENERGOREMONT D15 *SU -623-833
ecipitated residues loosener for use in settling tank - 50585B/27
S/ 15.11.76 GORSHKOV V P D15 J03 *SU -622-762
aste water clarification and purificn. - 50248B/27
I= 28.12.76 GRAIN PRODUCTS RES D13 *SU -623-576
ce grain processing - 50500B/27
C 02.11.77 GREEN CROSS CORP B04 D16 *J5 4064-688
abilising urokinase against heat during deactivation of virus -
9825B/27
E= 09.04.73 GUREVO CHEM WKS A88 D15 J01 (A17) *SU -623-564
emoving iron impurities from steam condensate - 50488B/27

AS/ 25.03.77 HAAS SEN F D11 =DL -135-033
ream wafer stacking machine - 71078A/40
CK/ 22.03.78 HACKENSELLNER H A D22 *DL -135-036
nimal blood vessel prepn. for medical use - 49112B/27
M 23.03.77 ALPMA ALPENLAND-MAS D13 =DS 2712-779
ylindrical cheese mould - 70992A/40
JS- 27.01.73 HAUSU SHOKUHIN KOGY D13 =J4 9094-873
Mustard paste prodn. - 50196B/27
JS- 27.01.73 HAUSU SHOKUHIN KOGY D13 *J7 9014-656
Mustard paste prodn. - 50196B/27
JS- 23.03.73 HAUSU SHOKUHIN KOGY D13 =J4 9118-869
Mustard paste prodn. - 50197B/27
JS- 23.03.73 HAUSU SHOKUHIN KOGY D13 *J7 9014-657
Mustard paste prodn. - 50197B/27
JS- 22.12.77 HAUSER & CIE AG D13 *DT 2757-481
oy bean bitterness removal - 49250B/27
YB 30.09.77 HAYASHIBARA SEIBUTS A11 D17 F01 (D16) =FR 2404-

Prods. based on new alpha-glucane - 30019B/16
NK 00.00.77 HENKEL KG AUF AKTIEN A60 D25 E19 (D16) *DT 2758-022
Stable liquid catalase compsns. - 49313B/27
NK 21.11.77 HENKEL KG AUF AKTIEN C03 D13 =DK 7804-800
Growth-promoting animal feed - 40798B/22
NK 23.12.77 HENKEL KG AUF AKTIEN D23 E17 (D21 D25) =GB 2010-

3,5,5-Tri:methyl hexanoic acid ester(s) used as aromatic materials -
47163B/26
RR/ 25.08.77 HERRNDUBLER F D11 =J5 4064-654
Ingredients and processes for mfg. rolled sugar free cakes - 00057B/01
EJ 31.10.77 HITACHI PLANT ENG CONST D15 *J5 4063-552
Emulsified waste water treatment - 49626B/27

*HIEJ 01.11.77 HITACHI PLANT ENG CONST D15 H07 J01 *J5 4065-179
Sepg. surfactant and emulsified oil from waste water - 49878B/27
HITA 28.04.76 HITACHI KK D15 J01 =J7 9015-274
Desalting and concentrating water using electrodialysis cell - 89248Y/50
HITA 11.05.77 HITACHI KK D15 J01 =J7 9015-271
Tubular filtering appts. for purifying liquids e.g. sea water - 04815B/03
HITA 09.12.77 HITACHI KK D14 J01 =GB 2010-692
Continuous band filter for food prods. - 45949B/25
*HITG 02.11.77 BABCOCK-HITACHI KK D15 E31 J01 (D36) *J5 4065-169
Pptn. of iron hydroxide from soln. etc. by alkali treatment - 49870B/27
*HITG 02.11.77 BABCOCK-HITACHI KK D15 E31 (E16) *J5 4065-198
Treating industrial waste soln. contg. iron ion - 49887B/27
*HITG 07.11.77 BABCOCK-HITACHI KK D15 *J5 4066-378
Appts. for producing fresh water from sea water by evapn.-condensn -
50035B/27
HOFS 10.11.71 HOFFMANNS STARKEFAB A97 D17 F06 (A11 D25) =DS
2155-941
Liquid laundry care agent - 30487U/22
HOHN/ 08.11.77 HOHN K D11 =SW 7810-604
Automatic mfr. of crackers - 37356B/20
HOMB- 28.06.68 VLEESWARE HOMBURG N D13 =IT 1030-508
Ham curing for canning - 02074R/02
*HORN/ 24.08.77 HORN F F D15 M25 *SW 7709-508
Purificn. of water contg. heavy metal salts - 50686B/27
*HORN/ 03.10.77 HORN H D22 *DL -135-156
Steam and hot air sterilisation monitoring - 49142B/27
HOSK 22.08.73 HOKKAI SEIKAN KK D13 =J5 0046-852
Vacuum-packed corn on the cob prodn. - 50195B/27
*HOSK 22.08.73 HOKKAI SEIKAN KK D13 *J7 9014-655
Vacuum-packed corn on the cob prodn. - 50195B/27
HOUD 14.12.73 HOUDAILLE INDS INC D15 =IT 1030-902
Aerating ejector for biological purifn. of waste water - 42684W/26
HUBE 20.12.77 HUBER J M CORP D21 E33 =DT 2811-097
Abrasive silica compsn. for dentifrice paste - 67037A/38
HUBE 20.12.77 HUBER J M CORP D21 E33 =NL 7802-800
Abrasive silica compsn. for dentifrice paste - 67037A/38

ICIL 16.07.74 IMPERIAL CHEM INDS LTD A97 D18 =CA 1056-588
Smoking mixt. compsn. - 09601X/06
ICIL 10.04.75 IMPERIAL CHEM INDS LTD C03 D22 E14 G02 (D15 D18)
=CA 1056-726
Protecting paints, adhesives oil emulsions against microorganisms -
81597X/44
ICIL 04.12.78 IMPERIAL CHEM INDS LTD C03 D22 G02 H08 (D15 G03)
=GB 2010-835
1-Thiocyanato-8-substd. naphthalene biocides - 47159B/26
IHAR 23.07.74 IHARA CHEM KK C02 D22 G02 (D15) =IT 1030-829
Antifouling compsns. for controlling aquatic organisms - 12435X/07
IHAR 11.06.75 IHARA CHEM KK B05 C03 D13 =CA 1056-851
Chlorosulphonyl benzoyl chloride prepn. - 01379Y/01
IMES- 08.04.71 IMES C G SPA B04 D21 (D16) =IT 1030-524
Extract from thermal flora - 10117U/08
INFL 07.08.73 INT FLAVORS & FRAGR INC D13 E13 =CA 1056-837
Thiafuran and furanthiol flavouring agents for food - 14727W/09
INFL 07.10.76 INT FLAVOURS FRAGRANCES D23 E13 =DS 2742-391
Substd.-(4,5)-(di)methyl thiazoline cpd. perfume and cologne compsns. -
59207Y/33
INGR- 19.12.77 INGREDIENT TECH COR D17 =DT 2854-660
Crystallisation of sugar from supersaturated solns. - 47612B/26
INGR- 19.12.77 INGREDIENT TECHN D17 =NL 7812-327
Crystallisation of sugar from supersaturated solns. - 47612B/26
*INME- 15.12.77 IND MEC CGZ ALIMEC D12 *DT 2843-388
Moulding press for meat, esp. boneless ham - 49352B/27
INRG 27.10.77 INST NAT RECH AGRON C02 D13 =GB 2010-659
Orotic acid and urea feedstuff additive - 18062B/10
INSF 29.06.73 INST FRANCAIS DU PETROLE D15 E36 =IT 1030-587
Dilute sulphuric acid effluent treatment - 88726V/52
ISHI- 29.04.74 ISHIGAKI KIKO KK D15 =DS 2420-744
Biological sewage clarification - 74343W/45
ISRA 15.12.72 ISRAEL, STATE OF D13 #IT 1030-658
Food can cooler - 58695U/40
ISTS 30.09.77 IST SIEROTER VACC SCLAVO B04 D16 =FR 2404-665
Adenylate kinase inhibitor, esp. for creatine kinase determn. -
28081B/15

JAGN 00.00.77 JAGENBERG WERKE AG D14 =DT 2757-897
Automatic dispenser of tiny doses of liq. - 31645B/17
JAGN 24.12.77 JAGENBERG WERKE AG D14 =GB 2010-779
Automatic dispenser of tiny doses of liq. - 31645B/17
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =DT
2852-948
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =GB
2010-703
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =J5 4066-594
Low temp. maturing dental glaze - 78140A/43

JOHJ 20 12 77 JOHNSON & JOHNSON D22 =GB 2010-682
Baby's disposable napkin with elastic edges - 47160B/26
* JOHS 16.01 78 JOHNSON S C & SONS INC D25 E12 (E16) *US 4158-553
Non-scratching liquid scouring compsn. - 50731B/27

* KAEU- 29.11.74 KAEUBLE C ITALIANA D15 *IT 1030-847
Aq. effluents biological purification appts. - B/27
KALI 08.02.77 KALI-CHEMIE AG D25 E33 =GB 1548-152
Crystalline sodium aluminosilicate prodn. with good wettability - 58988A/33
KALL- 27.02.76 KALLE-REGULATORER D15 =US 4158-627
Sewage sludge dewatering installation, working intermittently - 67151Y/38
* KANF 31.10.77 KANEGAFUCHI CHEM KK D15 J01 *J5 4064-084
Volatile material sepn. from aq. soln. using porous membrane - 49692B/27
KAOS 06.07.76 KAO SOAP KK D25 E12 =J7 9015-277
Conc. fluid solutions of sulphated alcohol surfactants - 79425Y/45
KAOS 04.03.77 KAO SOAP KK A96 D22 F04 =GB 1548-156
Sanitary towel with outer covering of nonwoven fabric - 49771A/28
* KAOS 26.12.77 KAO SOAP KK D24 E12 (D25). *DT 2851-542
Soap-filled scouring pads - 49363B/27
KAOS 26.12.77 KAO SOAP KK D24 E12 (D25) =GB 2010-894
Soap-filled scouring pads - 49363B/27
KARL- 21.05.73 KARLSHAMNS OLJEFAB D13 (D16) =IT 1030-575
Protein concentrate for human consumption - 71222V/41
KAWA- 05.09.72 KAWAKEN FINE CHEM D16 E17 =J7 9014-668
3-9C L-alpha-hydroxy acids enzymatic prodn. - 60605V/34
KAWA- 24.12.74 KAWAKEN FINE CHEM D25 E16 =J7 9015-034
Surface active agents - 60906X/32
* KAWA/ 07.11.77 KAWAMURA M A93 C03 D22 F09 *J5 4066-513
Preventing creaking in joints of wood structures - 50070B/27
* KEME= 26.12.77 KEMEROVSK CHEM IND A21 D15 (A97) *DT 2845-727
Treating waste water from phenol-formaldehyde resin mfr. - 49355B/27
KERJ 30.11.77 KERNFORSCHUNGS JULICH D15 E35 K07 (E16) =GB 2011-152
Treatment of waste soln. contg. ammonium nitrate - 42412B/23
* KEWA- 17.03.78 KEWANEE IND INC A97 D25 E16 (A25 E14) *US 4158-644
Hard surface cleaner and grease remover - 50790B/27
* KHFA= 08.10.76 KHARKOV FATS RES D23 *SU -622-837
Recovering solvent from oil-cake - 50322B/27
* KHIM= 19.12.75 KHIMPROEKT D25 *SU -622-903
Synthetic detergent cleaning power determination - 50387B/27
* KHOR/ 13.10.76 KHOROLSKII V B D16 *SU -623-863
Fermenter foam breaker - 50614B/27
* KIBU- 28.10.77 KIBUN KK D16 (D13) *J5 4064-683
Single cell protein prodn. - 49823B/27
* KIFO= 05.01.77 KIEV FOOD TECHN D17 *SU -622-839
Sugar prodn. diffuser - 50324B/27
KIKK 23.02.73 KIKKOMAN SHOYU KK B02 D16 =J7 9014-670
3',5'-Cyclic adenylic acid prepn. - 33026V/18
* KIMU/ 08.11.77 KIMURA T C04 D15 F09 *J5 4066-263
Chelated granular trace element fertiliser prodn. - 49998B/27
KINK- 31.03.75 KINKAI KAISUI KOGYO D15 =J7 9015-026
Precipitation of calcium carbonate from sea water - 87715X/47
* KISA- 15.11.77 KISA TRA AB D16 F09 *SW 7712-869
Recovery of biologically generated energy from pile of organic fibre - B/27
* KOBE- 31.10.77 KOBAYASHI KOSEI KK D21 E12 (E17) *J5 4064-645
Stable, gelled cosmetic compsns. contg. organic solvent - 49820B/27
* KOGY 01.11.77 IND RES INST OF JAPAN D15 E16 (E36) *J5 4064-853
Boiler descaling waste liquor treatment - 49831B/27
KOWA 08.11.77 KOWA KK B03 D16 =J5 4066-603
Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - 73117A/41
KOWA 08.11.77 KOWA KK B03 D16 =SW 7808-363
Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - 73117A/41
KROF/ 24.03.76 KROFTA M D15 =IT 1030-899
Waste water clarification by dissolved air flotation - 36050Y/20
KRPP 16.11.74 KRUPP F GMBH D15 =DS 2454-423
Thermal degasification of turbine main condensate and feed water - 40327X/22
* KUHN/ 09.12.77 KUHN W D15 *DL -135-186
Joint sludge and liquid animal manure dewatering - 49154B/27
* KUHN/ 15.03.78 KUHN W C03 D15 (D13) *DL -134-911
Sewage sludge processing to fodder - 49080B/27
KURK 03.06.74 KURITA WATER IND KK D15 J01 =J5 0155-046
Moving bed type multistage liquid-solid contact appts. - 50185B/27
* KURK 03.06.74 KURITA WATER IND KK D15 J01 *J7 9014-594
Moving bed type multistage liquid-solid contact appts. - 50185B/27
* KURK 04.11.77 KURITA WATER IND KK D15 *J5 4065-168
Device for adding defoaming agent to waste liq. treating bath - 49869B/27
KURS 22.04.75 KURARAY KK A14 D15 J01 (A88) =J7 9015-029
Semipermeable membranes having uniform microporous structure - 89067X/48
KURS 09.04.76 KURARAY KK A14 D15 J01 (A88) =J7 9015-268
Semipermeable membranes having uniform microporous structure - 89067X/48
KURS 30.09.77 KURARAY KK D13 (D12) =FR 2404-406
Stable, elastic, chewable fibrous milk protein meat sub
28172B/15
KYOW 03.09.73 KYOWA FERMENTATION KK A97 D16 =J7 9014-
Fermentative prodn. of guanine nucleotide - 64690W/39
KYOW 02.09.74 KYOWA HAKKO KOGYO K B03 D16 =J7 9014-66
Fructose and saccharose fatty ester prodn - 31015X/17
KYOW 02.09.74 KYOWA HAKKO KOGYO K D16 E13 =J7 9014-66
Fatty ester of glucose and trehalose prodn - 52683X/28
* KYOW 02.11.77 KYOWA FERMENTATION KK B04 D16 *J5 4064-69
Peptide derivs. prepn.. from amino acid derivs. - 49828B/27
* KYOW 07.11.77 KYOWA FERMENTATION KK B03 D16 *J5 4066-67
Antibiotic fortimicin-KE and KG - 50126B/27
KYOW 21.12.77 KYOWA HAKKO KOGYO B03 D22 E13 =GB 2010-
2-Acyl or alkyl fortimicin derivs. - 47154B/26
* KYOW 21.12.77 KYOWA HAKKO KOGYO B03 D22 E13 *GB 2010-8
N-Subsid.-fortimicin A derivs. - 49528B/27
KYOY 05.01.77 KYORITSU YUKI KK A91 C03 D15 (A14) =US 4158-
Water soluble pearl polymer prodn. - 51927A/29

LAEV 15.03.67 LAEVOSAN CHEM PHARM IND D17 =IT 1030-506
Prepn of glucose and fructose from sucrose - 62173R/35
* LAND- 13.09.77 AKAD LANDWIRTSCHAFT D14 *DL -135-154
Cleaning and peeling root crops - 49141B/27
LEAD- 27.08.74 LEAD CHEM KK A96 D21 =J7 9014-650
Base for cosmetic pack - 29041X/16
* LEAT= 14.01.77 LEATHER HABERDASHER A97 D18 G02 *SU -622-84
Compsn. for finishing low grade and waste leather - 50328B/27
* LEEP= 13.01.77 LENGD EPIDEMIOLOGY D16 *SU -623-866
Entero-toxicity of Escherichia coli bacteria determination - 50617B/
* LEFO= 06.01.77 LENGD FOOD IND RES D17 *SU -623-865
Neutraliser for citric acid mfr. - 50616B/27
* LEMI 26.01.77 LENINGRAD PLEKHANOV MINE D15 E19 *SU -622-76
Organic cpds. elimination from aq. effluents - 50251B/27
* LENG= 03.02.77 LENGORISPOLKOM VYMP D12 *SU -623-540
Animal stunning device used prior to slaughtering - 50477B/27
* LERE= 06.01.77 LENGD REFRIG IND TECN D17 *SU -623-865
Neutraliser for citric acid mfr. - 50616B/27
LEUZ/ 08.12.77 LEUZE G A88 D18 =GB 2011-028
Roller used in footwear mfr. e.g. processing of pieces of lea
45906B/25
* LINM 23.12.77 LINDE AG D15 *DT 2757-742
Activated sludge treatment of waste water - 49277B/27
* LINS/ 21.12.77 LINSER J D15 *DT 2756-999
Wet sludge dewatering device - 49237B/27
* LIOC 01.11.77 LION DENTIFRICE KK D23 E13 (D13) *J5 4066-657
5-Isopropyl-1-oxa-spiro(2.4) hept-4-ene - 50110B/27
* LIOC 01.11.77 LION DENTIFRICE KK D23 E13 (D13) *J5 4066-663
Spiro(5-isopropylbicyclo(3,1,0)hexane-2,2' oxirane) prodn. - 50113
LIOY 31.07.70 LION FAT & OIL KK D25 E19 =DS 2138-038
Isothermic thin film sulphonation of org cpds - 12122T/08
LIOY 27.12.75 LION FAT & OIL KK A97 D25 E34 =J7 9015-276
High concn. solns. of organic sulphate surfactant prodn. - 58532Y/3
* LIOY 07.11.77 LION FAT & OIL KK A96 D21 E19 (A25) *J5 4065-711
Aq. shampoo compsn. - 49926B/27
* LIOY 00.00.78 LION FAT & OIL KK D15 *J5 4063-550
Removal of surfactants from effluent - 49625B/27
* LUCC/ 11.02.66 LUCCHESI G D16 *IT 1030-503
Wine oxidation prevention - B/27

MACA- 25.11.77 MACANDREWS & FORBES B05 D13 E19 =GB 2010-
Low calorie food sweetener compsn. - 42700B/23
MACL/ 08.11.77 MACLENNAN M E D12 (D16) =SW 7811-315
Mycelial meat analogues and extenders - 37610B/20
MAGN- 19.12.77 MAGNUSON ENG INC D14 =GB 2010-665
Fruit and vegetables peeling appts. - 05829B/03
* MALP 30.09.77 MALLER SA ENTREPRIS D22 E13 (E16) *FR 2404-438
Disinfection and sterilisation process using ethylene oxide - 49457B/
* MART/ 22.07.74 MARTINENGHI G B D23 *IT 1030-591
Fat glycerides progressive fractionation - B/27
* MART/ 31.03.78 MARTIN K E D23 *US 4158-549
Incense producing scent like marijuana - 50729B/27
* MASI 25.04.77 MASSACHUSETTS INST TECH A85 D08 J04 L03 *
4158-807
Charge flow sensor - 50848B/27
MASW 24.10.74 MASCH WOLF B R D17 =DS 2450-552
Centrifugal drum for continuously operating sugar centrifu
36109X/20
MASW 01.10.77 MASCH BUCKAU WOLF D17 =FR 2404-673
Scalding vessel for plasmolysis of sliced sugar beet - 08063B/05
MATU 11.08.73 MATSUSHITA ELEC IND KK D15 =J7 9014-429
Water-purifier for drinking water prodn. - 38642V/21
MATU 11.08.73 MATSUSHITA ELEC IND KK D15 =J7 9014-430
Water-purifier for drinking water prodn - 38642V/21

G/ 21.02.69 MAUGET C D13 =IT 1030-512
lk for infants prepn - 65880R/37
E/ 03.10.77 MAYER A D15 *FR 2404-420
eating water for use in dishwasher - 49454B/27
J 23.01.74 METALLWERK AG D16 =IT 1030-987
utomatic red wine fermentation tank - 74534W/45
31.10.77 MEIJI KK B04 D16 =J5 4066-601
ntibiotic BN-213 with antibacterial activity - 35651B/19
04.11.77 MEIJI MILK PRODS KK D14 J04 *J5 4066-381
ppts. for easily-wettable granules prodn. from powder - 50037B/27
I 29.04.70 MERCK & CO INC B04 C03 D16 =DS 2120-929
accine for mareks disease - 72006S/45
I 01.08.75 MERCK & CO INC D13 =CA 1056-642
ood thickener contg. alginate, guar gum, sequestrant and salt -
3222Y/08
I 28.04.76 MERCK & CO INC B02 D16 =GB 1547-949
ntibacterial thiamycin analogues - 82381Y/46
I 19.10.77 MERCK & CO INC B02 C02 D22 E13 =J5 4066-696
-Substd.-6-hydroxy:ethyl-7-oxo-1 aza:bi:cycloheptene carboxylic acids -
3718B/18
I 19.10.77 MERCK & CO INC B02 C02 D13 E13 (D22) =J5 4066-697
-Substd.-7-oxo-aza-bi:cycloheptene-2-carboxylic acids - 33719B/18
CH/ 28.10.77 MICHAELS E B D22 E16 #J5 4064-641
Antimicrobial compsn. contg. acyl-betaine and amine oxide - 19587A/10
I 06.09.74 MILLIPORE CORP A96 B04 D16 H04 =CA 1056-746
Enzyme-contg. microporous membranes - 22925X/13
K= 04.02.77 MILK CHEESE IND D23 *SU -623-542
Continuous prodn. of processed butter - 50479B/27
NN 08.03.71 MINNESOTA MINING CO D25 E19 F06 =DS 2211-623
Aq cleaning compsn - 63262T/40
TK 08.11.77 MITSUI TOATSU CHEM INC B05 D16 E16 J04 *J5 4066-887
Reagent for L-lysine determn. - 50148B/27
TN 00.00.78 MITSUBISHI GAS CHEM IND C03 D16 (D13) *J5 4064-687
Prodn. of yeast mycelium - 49824B/27
TP 08.11.77 MITSUBISHI PETROCH KK B04 D16 =J5 4066-604
Polysaccharide prepn. from Pseudomonas polysaccharogenes -
82126A/46
TP 08.11.77 MITSUBISHI YUKA PHA B04 D16 =SW 7811-491
Polysaccharide prepn. from Pseudomonas polysaccharogenes -
82126A/46
TP 08.11.77 MITSUBISHI PETROCH KK B04 D16 =SW 7811-491
Polysaccharide prepn. from Pseudomonas polysaccharogenes -
82126A/46
ITQ 07.11.77 MITSUBISHI ELECTRIC CORP D22 J01 (J03) *J5 4066-376
Gas treatment to remove offensive odours - 50033B/27
ITR 31.10.77 MITSUBISHI RAYON KK A88 D15 J01 *J5 4064-083
High performance semipermeable membrane with high mechanical
strength - 49691B/27
ITR 01.11.77 MITSUBISHI RAYON KK D15 J01 *J5 4064-085
Tubular module used for ultrafiltration or reverse osmosis - 49693B/27
ITU 02.04.74 MITSUBISHI CHEM IND KK D15 M14 =J5 0134-938
Spent aluminium alkali etching soln. treatment - 50181B/27
ITU 02.04.74 MITSUBISHI CHEM IND KK D15 M14 *J7 9014-585
Spent aluminium alkali etching soln. treatment - 50181B/27
ITU 09.05.74 MITSUBISHI CHEM IND KK A97 D15 E33 M14 (A14) =J7
014-586
Aluminium separation from waste water - 13009A/07
ITU 26.06.74 MITSUBISHI CHEM IND KK A97 D17 E13 (D16) =CA 1056-
50
Isomerisation of glucose to fructose - 04899X/03
ITU 05.01.77 MITSUBISHI CHEM IND KK A91 C03 D15 (A14) =US 4158-
26
Water soluble pearl polymer prodn. - 51927A/29
KTT- 30.09.77 MKT-TEHTAAT OY D13 *FR 2404-392
Draining whey from curds in cheese mould - 49452B/27
NKN 30.09.77 MINAMINIHON RAKUNO KYODO D13 (D12) =FR 2404-
06
Stable, elastic, chewable fibrous milk protein meat substitute -
28172B/15
OGI= 22.11.77 MOGILEVMEAT COMPLEX D18 #DK 7705-183
Continuous automatic cleaning of animal hides - 45195B/24
OLN 21.12.77 MOLNLYCKE AB D22 =DT 2854-720
Intravaginal period sanitary tampon with extraction cord - 47149B/26
OLN 21.12.77 MOLNLYCKE AB D22 =GB 2010-680
Intravaginal period sanitary tampon with extraction cord - 47149B/26
OLS- 30.10.78 MOLSON CIES LTD D16 *BE -874-486
Ethanolic extract of ground malt - 49048B/27
MOME= 21.02.77 MOSC MEAT DAIRY IND D12 *SU -623-153
Sausage meat structural-mechanical properties evaluation - 50466B/27
MONS 05.12.77 MONSANTO CO D25 E13 (E12) *US 4158-635
Detergent compsns. for dishwashing machines etc. - 50785B/27
MOOC 08.12.77 MO OCH DOMSJO AB D22 =WP 7900-356
Dressing for high fluid secretion wounds - 47480B/26
MORG 24.04.73 MORINAGA MILK KK D13 =J4 9132-251
Cold water soluble powdery food prodn. - 50194B/27
MORG 24.04.73 MORINAGA MILK KK D13 *J7 9014-653
Cold water soluble powdery food prodn. - 50194B/27
MOSV= 16.02.77 MOSC SVOBODA COSMETIC A96 B05 D21 (A25) *SU -

MUNC- 03.10.77 MUNCHMEYER & CO .D12 =FR 2404-403
Machine to cut open and clean stomach of chickens, etc. - 11937B/07
MURA 23.01.73 MURATA MFG CO A97 D15 J04 =J4 9098-695
Prepn. of test piece for X/ray analysis - 50208B/27
*MURA 23.01.73 MURATA MFG CO A97 D15 J04 *J7 9014-956
Prepn. of test piece for X/ray analysis - 50208B/27

NAAR 30.01.73 NAARDEN INT NV D17 E13 (D16) =SU -623-525
Fructose-contg. syrup prodn. from starch - 56705V/32
*NAAR 15.12.77 NAARDEN INT NV D23 E16 *NL 7713-925
4-Deceno:nitrile used as fragrance - 50227B/27
*NAKA/ 29.10.77 NAKAMURA N D13 *J5 4064-672
Removal of cyanide from bean jam - 49822B/27
NATT 15.12.77 NAT STARCH & CHEM CORP A11 D17 =NL 7809-944
Prepn. of highly substd. polysaccharide deriv. - 93173A/51
*NEED/ 28.10.77 NEEDHAM A A35 D25 E12 (E34) *GB 2010-895
Agent for removing plastics resin from skin - 49551B/27
NEST 09.03.76 SOC ASSIS PROD NEST D13 =US 4158-708
Aromatic spice extract used for food flavouring - 57506Y/33
NEST 29.09.77 NESTLE SA D13 (D12) =FR 2404-405
Textured food prod. similar to cooked meat - 14162B/08
*NICA 28.10.77 NIPPON CARBIDE KOGY KK A97 D16 *J5 4066-295
Algae propagation - 50002B/27
NIED/ 17.10.73 NIEDECKER H D12 =IT 1030-712
Sausage suspension loop feed system - 64771V/37
*NIPC 01.11.77 NIPPON CHEM IND KK D25 E33 *J5 4064-504
Zeolite slurry for detergent - 49737B/27
*NIPT 02.11.77 NIPPON TENSAI SEITO KK B04 D16 *J5 4064-689
Enzyme fixation process - 49826B/27
*NIRA 01.11.77 UNITIKA KK A96 B04 D22 (A14) *J5 4064-882
Antithrombotic poly(meth)acrylate material - 49832B/27
*NISB 01.11.77 JAPAN TOBACCO & SALT PUB D18 E13 *J5 4066-666
2-Oxa-bi:cyclo(4,3,0)-nonene-one derivs. - 50116B/27
*NISC 27.12.77 NISSAN CHEM IND KK D17 E12 F09 M12 (D16) *DT 2855-
822
Removal of calcium oxalate encrustations - 49436B/27
*NISP 27.12.77 NISSIN SHOKUHIN KAISHA D11 *DT 2856-195
Noodle dough paste - 49447B/27
NISP 27.12.77 NISSIN SHOKUHIN KAISHA D11 =GB 2010-658
Noodle dough paste - 49447B/27
NITL 28.09.76 NITTO ELECTRIC IND KK D15 J01 =J7 9015-270
Reverse osmotic sepn. and ultrafiltration appts. - 38992A/22
*NITL 22.12.77 NITTO ELECTRIC IND KK A97 C03 D22 *GB 2010-851
Antibacterial and antifungal materials - 49538B/27
NMHB 18.11.77 NORDISCH MASCH R BAADER D12 #DK 7705-113
Fish gutting machine esp. for large sea fish - 21668A/12
NOVO= 08.11.77 NOVOKUIB GIPROKAUCHUK A60 B07 D13 E14 (B05)
#J5 4066-630
Methyl-di:tert.-butyl:phenol purification - 49676A/28
NTOK 01.04.75 NORITAKE KK D15 J02 =J5 1114-381
Aerator for oxidising e.g. waste water - 50213B/27
*NTOK 01.04.75 NORITAKE KK D15 J02 *J7 9015-027
Aerator for oxidising e.g. waste water - 50213B/27

*ODST= 30.09.76 ODESS STOMATOLOGY B04 D16 *SU -623-556
Pure animal hyaluronidase prodn. - 50482B/27
*ODST= 16.02.77 ODESS STOMATOLOGY A96 B05 D21 (A25) *SU -623-
555
Bactericidal and antiinflammatory tooth-paste compsn. - 50481B/27
*OETK- 14.07.78 OETKER TIEFKUHLKOST D13 *BE -874-511
Prepn. of frozen vegetable mixts. for mixing with water - 49054B/27
*OHKA- 02.11.77 OHKAWARA SEISAKUSHO D13 J04 *J5 4065-176
Fluidised bed granulation process - 49876B/27
OKAW- 00.00.74 OKAWA KENKYUSHO KK A92 D13 F09 (A17) =J5
0088-275
Boiling and sealing rice in package - 50198B/27
*OKAW- 00.00.74 OKAWA KENKYUSHO A92 D13 F09 (A17) *J7 9014-
659
Boiling and sealing rice in package - 50198B/27
OREA 16.12.77 L'OREAL SA A96 D21 E13 =DT 2854-337
Cosmetic compsn. for reinforcing the nails - 45689B/25
*OREA 30.12.77 L'OREAL SA A96 D21 E19 (A25) *BE -873-132
Cosmetic for removing make/up from the eyes - 48993B/27
*ORLO/ 17.08.73 ORLOV A K D15 *SU -623-831
Sea water desalinating appts. - 50583B/27
*ORLO/ 03.02.78 ORLOWSKI J A A84 D18 (A12 A17) *US 4158-543
Cleaner for grain and suede leather - 50723B/27
*ORLO= 04.01.76 ORLOVO LIGHT MACH D18 *SU -622-841
Animal skins treating unit presser roller control - 50326B/27

PASE 19.03.75 PASSAVANTW MICHELBACHER D15 =DS 2512-107
Slow decarbonating process for water - 59690X/32
*PASE 23.12.77 PASSAVANTW MICHELBACHER D15 *GB 2010-690
Appts. for dewatering sludges - 49513B/27
PAUL/ 02.04.76 PAULUCCI J F D11 =DS 2759-302
Rotary oven for heating prepd. pizzas - 74430Y/42

*PELL/ 30.11.77 PELL W H D16 *GB 2010-975
Brewing or wine-making container - 49565B/27

*PERF- 13.03.78 PERFETTI SPA D13 *BE -874-461
Chewing gum contg. liq. flavoured filling - 49043B/27

PETO 18.10.73 PEDIGREE PETFOODS C03 D13 =IT 1030-704
Animal food product contg. fermented protein - 19271W/12

PETO 18.10.73 PEDIGREE PETFOODS C03 D13 =IT 1030-705
Animal food product contg. compressed fermented protein - 19290W/12

*PETR= 02.03.77 PETROPAVLOVSK KAMCH D14 *SU -623-541
Frozen food blocks glazing equipment - 50478B/27

PFIZ 15.06.76 PFIZER INC B03 C02 D22 E13 (D15) =DL -135-080
Antibacterial and growth-promoting quinoxaline 1,4)-dioxide derivs. - 00365A/01

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =DK 7805-129
2,5-Di:keto-gluconic acid preparation - 38984B/21

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =NO 7803-877
2,5-Di:keto-gluconic acid preparation - 38984B/21

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =SW 7809-345
2,5-Di:keto-gluconic acid preparation - 38984B/21

PFIZ 03.01.78 PFIZER INC B03 D22 E13 =BE -873-266
Antibacterial 11-alkanoyl-4-isonitrile oleandomycin cpds. - 84004A/46

*PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) *BE -873-267
Antibacterial 4-de:oxy-4-acylamido macrolide cpds. - 49015B/27

*PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) *BE -873-269
4-Deoxy-4-aryl-glyoxamido and aroyl thio:formamido-oleandomycin(s) - 49016B/27

*PLAS- 26.07.77 PLASTIC ENGS LTD A88 D13 J01 *GB 2010-689
Easily cleaned filter esp. for milk - 49512B/27

PORT/ 06.12.77 PORTA A D25 E36 F06 J03 =WP 7900-346
Automatic washing machines - 44432B/24

*POUJ/ 03.01.78 POUJADE O D13 (D22) *BE -873-265
Water-soluble sugar prod. contg. essential oils - 49014B/27

*PRCE= 03.02.77 PERM CELLULOSE PAPE C03 D16 (D13) *SU -623-867
Yeast strain Candida Utilis TM-34 - 50618B/27

PREV- 27.12.74 PREVENTIVE SYSTEMS A97 B04 D16 (A96) =CA 1056-727
Selective removal of endotoxins from blood etc. - 43778X/23

PROC 20.05.70 PROCTER & GAMBLE EU A97 D25 (A81) =DS 2124-526
Low foaming detergent compsn - 74928S/47

PROC 11.01.74 PROCTER & GAMBLE CO D25 =IT 1030-975
Liquid dishwashing compsn. of improved drainability - 49684W/30

PROC 11.01.74 PROCTER & GAMBLE CO A97 D25 =IT 1030-976
Granular low foaming detergent compsn. - 49693W/30

PROC 18.07.77 PROCTER & GAMBLE CO A96 D21 E19 (E32 E33) =J5 4064-646
Stable antiperspirant stick compsn. - 10320B/06

*PRPO= 30.03.76 PERM POLY D16 F09 L02 M22 *SU -622-910
hydrophobic adhesive mfr. from by/product of sulphate cooking - 50394B/27

PRZE- 22.02.74 INST PRZEMYSLU MIES D13 =CA 1056-645
Curing agent and preservative for food - 59122W/36

PRZE- 19.10.76 INST PRZEMYSLU MLEC D16 =US 4158-607
Enzymatic compsns. - 43208A/24

*PURX 11.04.77 PUREX CORP LTD D22 *US 4158-575
Cleaning and disinfecting hard floors - 50745B/27

QUIM- 31.07.72 QUIMCO GMBH D15 =DS 2337-406
Fluid sterilization of sludge and sewage - 13867V/08

*RAIO/ 04.08.78 RAIOLA G D13 *IT 1031-000
Apricots and peaches cutting and destoning installation - B/27

*RALS 09.07.73 RALSTON PURINA CO C03 D13 *US 4158-706
preserving high moisture proteinaceous pet food - 50824B/27

*REAL- 10.01.78 REALDYME D13 *BE -873-181
Increasing the nutritional value of wheat milling wastes - 49000B/27

*REVL 18.11.76 REVLON INC D21 E17 *US 4158-704
thioglycolate ester compsns. - 50823B/27

REWO 12.11.77 REWO CHEM FAB D25 E17 (D21 D22) =GB 2010-832
Betaine derivs. contg. ricinoleic acid amide gp. - 39229B/21

RHON 04.05.73 RHONE-POULENC SA D17 (D16) =J7 9014-679
Non-fibrous free flowing polysaccharide powder - 80952V/47

RICT 25.08.77 RICHTER GEDEON VEGY C03 D15 (D13 D15) =J5 4063-545
Sewage sludge used to mfr. nutritious animal feed - 16007B/09

*RIED- 21.12.77 RIEDEL-TECHNIK GMBH A97 D12 *DT 2756-995
Skinless sausage mfr. - 49236B/27

*RIJK- 20.12.77 MACH C RIJKAART BV D11 *NL 7714-151
Prodn. of egg rolls - 50232B/27

*ROAN= 31.05.77 ROST ANTI-PLAGUE D16 *SU -623-868
Synthetic medium for culturing plague microbes - 50619B/27

*ROBE- 30.09.77 ROBERTET & CIE D23 E15 *FR 2404-616
Racemic gamma-irone, useful as perfume or aromatising agent - 49474B/27

ROHG 02.03.77 ROHM GMBH D18 (D15) =GB 1548-140
Dissolving collagen-contg. waste of leather mfr. - 65497A/37

*ROSS- 09.10.74 ROSSETTI TRATTAMENT D15 *IT 1030-700
Self-cleaning, continuous filter for water purification - B/27

*ROSS/ 04.11.66 ROSS C D17 *IT 1030-505
Starch elimination from sorghum juice - B/27

*ROYA- 01.11.77 ROYAL YAKUHIN KK A96 D21 E17 (A25) *J5 4064-
Bath additive contg. squalane - 49816B/27

RUHR 31.05.74 RUHRCHEMIE AG A60 D15 E19 =CA 1056-738
Polymer plasticisers prodn. effluent treatment - 78856W/48

SAND- 22.11.73 SANDEI GURAFU CO LT D15 =IT 1030-733
Prodn appts., for alkaline/acid water - 60848W/37

*SATO/ 05.11.77 SATO M D13 *J5 4066-700
Alkali salts of protein prodn. - 50138B/27

SAWY/ 26.08.77 SAWYER P N A96 D22 =J5 4063-588
Cardiac and vascular implantation prostheses - 18397B/10

*SCHM/ 13.03.78 SCHMIDT D B04 D16 *DL -134-959
High quality sera for cell cultivation prodn. - 49096B/27

*SCHN/ 17.03.78 SCHNEEWEISS R D11 *DL -134-910
Preserving baker's wares - 49079B/27

SCHR/ 23.12.77 SCHREIBER A D15 =DT 2757-860
Compact plant for activated sludge treatment of waste water - 4718

*SCHU/ 16.03.78 SCHUBERT K W A35 D15 (A12) *DL -134-952
Purifying latex-contg. waste water - 49090B/27

*SCHW- 22.12.77 SCHWEIZER L GMBH D18 *DT 2757-257
Continuous leather drying press - 49248B/27

SCIE 30.11.77 SCIENCE UNION & CIE B04 D16 =GB 2010-848
Depsipeptide extract of Fusarium equiseti - 42405B/23

*SCMZ 18.10.76 SCM CORP D23 *US 4158-665
Hydrogenation of glyceride oils contaminated with soaps - 50802B/2

*SCMZ 17.03.77 SCM CORP D23 *US 4158-666
Hydrogenation of glyceride oils contg. soaps - 50803B/27

SEGK 26.06.74 SEIKAGAKU KOGYO KK A97 D17 E13 (D16) =CA 10
750
Isomerisation of glucose to fructose - 04899X/03

*SEKI 31.10.77 SEKISUI CHEMI IND KK D15 *J5 4064-071
Waste liq. treating appts. for recycling water - 49682B/27

*SEKI/ 02.11.77 SEKI R C03 D13 *J5 4066-276
Ruminant feed compsn. prodn. from starch material - 50001B/27

*SEME/ 27.09.76 SEMENOVSKII YU V D15 *SU -622-763
Effluents biochemical purification appts. - 50249B/27

SHEL 07.01.74 SHELL INT RES MIJ BV C03 D14 H04 (D13) =IT 1030-94
Growing methane-utilising microorganisms in mixed cultu
46037W/28

*SHIO 02.11.77 SHIONOGI KK B04 D16 *J5 4064-692
Synthesis of peptide derivs. - 49827B/27

*SHIO 23.02.78 SHIONOGI KK B02 C02 D22 *BE -874-377
7-Beta 5-oxo-4-phenyl-imidazolidine-1-yl 3-chloro 3-cephem-4-ac
49025B/27

*SHIS 31.10.77 SHISEIDO KK D21 E24 *J5 4064-644
Red pigment for use in cosmetics - 49819B/27

SHOF- 26.10.76 SHOFU DENTAL MFG D21 L02 =US 4158-641
Fluorescent ceramic compsn. for use as false tooth - 46461A/26

*SHOW- 08.11.77 SHOWA YUNOX KK C04 D15 (D16) *J5 4066-270
Composting organic sludge - 50000B/27

SILV/ 21.05.74 SILVETTI A N D22 #IT 1030-576
Treating skin wounds with starch hyrolysate - 41523V/22

*SIMP- 10.03.77 SIMPSON & CO LT J P D16 *GB 1548-077
Continuous malting of grain using pre-germination vessels - 49503B/2

SITR 20.12.74 SOC ITALIANA RESINE SPA D15 =IT 1030-930
Water desalting process - 69630X/37

SKRY= 14.09.77 SKRYABIN HELMINTHOL B04 C03 D16 #NL 7710-058
Isolation of Trichinella larvae - 72389A/40

*SOAF- 28.09.77 SOAF D15 J01 *FR 2404-455
Chemical reaction vessel for purificn. of waste water - 49459B/27

SOCF 12.11.74 SOC ELETTROCHIM CAFFARO D15 =IT 1030-792
Liquid inorganic flocculating compsn. prepn. - 51974Y/29

SODR- 09.12.77 SODRA SKOGSAGARNA D22 F09 =GB 2010-767
Feed arrangement of continuous sheets of pulp to dry-laying machi
44035B/24

SOLB 23.12.77 SOLCO BASEL AG B04 D16 =DT 2854-723
Hetero-vaccine for treatment of trichomonas syndrome - 47144B/26

SOLB 23.12.77 SOLCO BASEL AG B04 D16 =GB 2010-677
Hetero-vaccine for treatment of trichomonas syndrome - 47144B/26

SOLV 10.01.77 SOLVAY & CIE A97 D25 (A14 A35) =GB 1548-120
Depolymerising hydroxy:carboxylic polymers to lower polymer
49681A/28

SOMA- 25.10.77 SOMAT CORP D15 =J5 4065-170
Dewatering sewage sludge - 33597B/18

SPAA- 14.12.77 SPAAS COTTON NV D23 F07 =NL 7802-464
Wick for candles, etc. of woven bleached cotton - 44036A/25

STAM 19.09.74 STAMICARBON BV A91 D15 E13 J01 =SU -623-498
Use of polymeric flocculating agent - 24428X/14

STAM- 22.12.77 STAMAG STADLAUER D11 =DT 2854-728
Bakery prod. partic crisp biscuit with high bran content - 29793B/16

STAM- 22.12.77 STAMAG AG D11 =GB 2010-656
Bakery prod. partic crisp biscuit with high bran content - 29793B/16

STAU 15.12.77 STAUFFER CHEMICAL CO D13 =NL 7812-187
Substitutes for egg albumin and skimmed milk solids in food prods
45698B/25

3.09.77 STEINMULLER L & C GMBH D15 J01 =FR 2404-459
anger resin regeneration - 26332B/14
.12.77 STERLING DRUG INC D22 L02 =GB 2010-792
whitlockite prepn. in solid or porous form - 47146B/26
08.11.77 STERLITAMAK WORKS A60 B07 D13 E14 (B05) #J5 4066-

nyl-di:tert.-butyl:phenol purification - 49676A/28
0.09.77 STIGEBRANDT A D15 =FR 2404-606
ile sludge treatment appts. - 28278B/15
05.02.70 STUDIENGES KOHLE MBH D13 =IT 1030-521
affenating green coffee with moist - 52761S/32
26.07.68 FRATELLI SULZER D15 =IT 1030-509
r for industrial and drinking water - 46672R/26
29.09.77 SULZER FRERES A88 D14 J01 =FR 2404-518
s filter of moving belt type - 28267B/15
04.11.77 SUMITOMO CHEMICAL KK A88 D15 J01 (A14 A35) *J5
82
erse osmosis membrane prodn. - 50038B/27
/ 25.08.77 SUNDBERG H M D15 *SW 7709-551
ating of effluent liquor - 50688B/27
- 24.02.78 SUOMEN LAAKETEHDAS B06 D13 *BE -874-413
mpsns. contg. desired sodium potassium magnesium calcium ratios -
35B/27

- 12.06.75 TAKARA SHUZO KK D16 =J7 9014-665
zyme prodn. which decomposes. pectic substances - 08629Y/05
31.10.77 TAKEDA CHEMICAL IND KK B04 D16 *J5 4066-602
tibiotic T-47811 effective against Escherichia coli etc. - 50075B/27
18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =DK 7805-143
acrocyclic antibiotic C-15003 P-3 - 40873B/22
18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =DK 7805-144
acrocyclic antibiotic C-15003 P-4 - 40871B/22
30.12.77 TAKEDA CHEMICAL IND KK B04 C03 D16 (D22) *BE -873-

tibiotic G-6302 prepd. by fermenting Pseudomonas acidophila -
005B/27
W/ 21.12.77 TAMM J B01 D21 E15 *DT 2757-024
air and skin cosmetics - 49240B/27
14.03.77 TATE & LYLE LTD D17 (D16) =GB 1548-078
lysaccharide(s) prepd. by culture of Azotobacter vinelandii -
675A/29
15.10.74 TEE PAK INC D12 =CA 1056-644
luminium-tanned collagen sausage casing - 03780X/02
28.09.77 TEEPAK INC A97 D12 =FR 2404-401
ternally coated cellulose sausage casings - 13989B/07
26.07.72 TEIJIN KK A14 D22 G03 (A81 A96) =J7 9014-607
ressure sensitive adhesive - 00594V/01
C 31.10.77 TEXACO DEV CORP D15 =J5 4066-557
reating waste water contg. cyanide and formate(s) - 33367B/18
G 24.04.73 TOWA KASEI KOGYO KK D13 *J7 9014-653
old water soluble powdery food prodn. - 50194B/27
U 28.09.77 TOKUYAMA SODA KK D23 E17 F06 G02 =FR 2404-621
irect aliphatic carboxylic acid esterification with ethylene - 28171B/15
F- 02.01.78 TOP FOODS ELBURG D13 *BE -873-171
rozen potato chips prepn. - 48997B/27
I 31.10.77 TOSHIBA MACH KK D15 J01 *J5 4064-088
everse osmosis equipment - 49694B/27
U- 23.12.77 TOYO SUISAN KAISHA D11 *GB 2010-661
orming dried foamed noodles - 49509B/27
M 02.11.77 TOYOBO KK B01 D16 *J5 4064-694
Androstane deriv. prodn. - 49829B/27
O- 02.11.77 TOYOTAMA KORYO KK D23 E15 *J5 4066-658
Cis jasmone prepn. by cyclising 1,4-di:ketone - 50111B/27
B 14.12.71 KUMIAI CHEM IND KK B04 C03 D16 =DS 2261-270
Complex enzymes - 38037U/27
B 07.11.73 KUMIAI CHEM IND KK B03 C02 D13 (D21) =CA 1056-838
Alkali(ne earth) metal salts of L-ascorbic acid 2 sulphate - 34582W/21

EI 08.11.77 UBE INDUSTRIES KK B05 D23 E14 *J5 4066-639
Mono:formylated phenol cpds. prodn. - 50095B/27
BE/ 01.02.78 UEBERSCHAR K D25 E36 *DL -135-287
Disinfecting detergent compsns. for washing textiles - 49193B/27
IC 13.11.74 UNION CARBIDE CORP D15 =CA 1056-965
Sewage water treatment - 58980X/31
IC 23.12.77 UNION CARBIDE CORP C04 D15 M28 =DT 2855-690
Removing heavy metals from waste activated sludge - 47205B/26
IE- 23.06.72 UNIE VAN KUNSTMESTFAB C03 D13 =SU -623-496
Urea/mineral additive for maize fodder - 02744V/02
IL 00.00.70 UNILEVER NV D25 E17 #DS 2208-248
Detergent compsns - 58981T/37
IL 29.05.70 UNILEVER NV D25 E11 =DS 2126-589
Liquid washing up detergent contg an antiresoiling agent - 76534S/48
IL 10.11.77 UNILEVER NV A97 D25 =SW 7811-594
Alkaline particulate detergent compsns. for washing clothes etc. -
37143B/20

UNIL 16.11.77 UNILEVER NV A97 D25 E16 F06 =DK 7805-059
Fabric softening compsn. for cotton and synthetic textiles - 39348B/21
UNIL 16.11.77 UNILEVER NV A97 D25 E16 F06 =NO 7803-839
Fabric softening compsn. for cotton and synthetic textiles - 39348B/21
UNIL 16.11.77 UNILEVER NV A97 D25 E16 F06 =SW 7811-814
Fabric softening compsn. for cotton and synthetic textiles - 39348B/21
UNIL 18.11.77 UNILEVER NV D25 E19 (E37) =DK 7805-132
Aq. bleaching compsn., esp. hypochlorite, coloured by pigment -
38987B/21
UNIL 19.12.77 UNILEVER NV D23 E17 =NL 7812-288
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
*UNIL 22.12.77 UNILEVER NV A97 D25 E19 *DT 2855-776
Stable liq. detergents with low hydrotrope content - 49430B/27
*UNIL 22.12.77 UNILEVER NV D25 E34 *DT 2855-777
Granular bleach activators - 49431B/27
UNIL 22.12.77 UNILEVER NV A97 D25 E19 (A25) =DT 2855-778
Aq. detergent compsn. esp. for dish washing - 47208B/26
UNIL 20.12.78 UNILEVER NV A97 D25 E19 (A25) =GB 2010-892
Aq. detergent compsn. esp. for dish washing - 47208B/26
UNIL 20.12.78 UNILEVER NV A97 D25 E19 =GB 2010-893
Stable liq. detergents with low hydrotrope content - 49430B/27
UNIO 18.01.77 UCB SA B02 C02 D13 =DL -135-284
6-Amino-2-spiro-heterocyclyl-penam carboxylic acids - 53859A/30
UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =J5 4066-277
Lubricating binder for animal feeds - 65374A/37
UNIT- 27.12.77 UNITEK CORP D21 M26 =DT 2855-739
Dental gold platinum alloy - 06018B/03
UPJO 20.05.74 UPJOHN CO B03 C02 D22 E13 (D15 D16) =CA 1056-
822
5,6-Dihydro-5-azathymidine (acylates) - 67115W/40
UPJO 17.10.77 UPJOHN CO B04 C03 D16 H07 =J5 4064-695
Antibiotic CC-1065 - 31828B/17
*UTUM- 22.12.77 UT-GES UMWELT-TECH D15 J01 *DT 2757-209
Continuous effluent filtration - 49247B/27

*VAIH- 21.12.77 VAIHINGER F GMBH D14 *DT 2756-957
Whipped cream attachment - 49229B/27
VAND 01.10.73 VANDERBILT R T CO INC D21 E19 =IT 1030-633
Antibacterial and germicidal cleansing agents - 24682W/15
VEKE- 30.09.77 VER KESSELWERKE D15 =FR 2404-604
Packing for trickling water tower - 28032B/15
VEMA- 01.10.77 VEMAG VERDENER MASC D12 =FR 2404-402
Sausage link looping machine - 28050B/15
*VHEY/ 27.12.77 VON DER HEYDE G D18 *DT 2758-135
Leather hide depositing mechanism on frame - 49323B/27
*VYSO- 16.12.77 VYSOKA SKOLA CHEMIC A96 B04 D16 J04 *DT 2854-
277
Protein e.g. immunoglobulin immobilisation agent - 49395B/27

*WAKP 31.10.77 WAKO PURE CHEM IND KK B04 D16 J04 *J5 4063-887
Determn. of the amt. of substrate or activity of enzyme - 49647B/27
WARN 04.06.73 WARNER-LAMBERT CO D22 =IT 1030-577
Cleaning and sterilisation of soft contact lenses - 88163V/51
*WATE= 01.12.76 WATER STORAGE RES D15 *SU -622-764
Airport surface run/off rain water purificn. - 50250B/27
WATN- 09.01.69 WATNEY MANN LONDON D16 =IT 1030-511
Separation of hop resin acids - 50159R/28
*WERN 23.12.77 WERNER & PFLEIDERER D11 *DT 2757-618
Multideck baking oven - 49266B/27
WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =SW 7810-771
Wood protection against moisture-induced decay - 18077B/10
WYSS 21.12.77 ESCHER WYSS GMBH C03 D13 =DT 2757-036
Treating whole grain cereals to obtain better animal feed - 31622B/17

*YALO= 09.12.75 YALOVENY AGRIC IND D16 *SU -623-745
Fruit and berries press cylinder - 50572B/27
YAMS 02.06.75 YAMASA SHOYU KK B02 D16 =J7 9014-675
S-adenosyl methionine extn. from microbial cells - 06511Y/04
*YUKI- 22.08.73 YUKIJIRUSHI ANDES SHOKUH D13 *J7 9014-655
Vacuum-packed corn on the cob prodn. - 50195B/27

ZAID 12.03.74 ZAIDAN HOJIN BISEII B04 D16 =CA 1056-747
Antileukaemic antibiotic MC 916 - 64270W/39
ZAID 15.10.75 ZAIDAN HOJIN BISEI B02 D16 =CA 1056-748
Neothramycins A and B and methylneothramycins - 12856Y/08
ZAID 15.10.75 ZH BISEIBUTSU KAGAKU KEN B02 D16 =DS 2645-528
Neothramycins A and B and methylneothramycins - 12856Y/08
ZELL- 25.04.64 ZELLSTOFFFAB WALDHO C03 D13 F09 =IT 1030-501
Improvement of flow characteristics of sulphite waste - 01858H/00
ZIER- 14.11.77 VEB ZIERKERZEN DRES D23 M13 #SW 7712-849
Metal-coated candle prepn. - 14197A/08

BDE
8-482 Q00
3-936 R24
9-617 R27
0-265 S14
2-904 T45
9-381 W09
4-249 Q01
9-131 B06
0-507 B27

CDF
4-228 Q00
0-501 B27

D
32-578 R02
89-777 T03
77-964 T24
41-201 U06
75-134 U49
32-578 V23
30-508 B27

R D
13-771 R26
82-586 T29
030-509 B27

R D
744-211 R28
000-131 R36
000-689 R48
236-731 S24
921-491 U10
030-511 B27

-R D
204-243 R35+
868-346 S16
505-202 S24
024-131 T27
332-637 T46
138-071 U10
642-535 U31
812-010 V22
030-506 B27+

-R D
2008-106 R37
-751-091 R47
2034-206 S06
1030-512 B27

R D
-751-219 R47
1927-228 R48
7007-597 R48
7007-972 R49
2048-807 S23
--82-636 S36
1264-272 T07
3681-090 T33
-535-019 U25
-928-566 U27
1927-228 W15
5030-707 W44
7003-754 W48
--62-323 A07
1030-514 B27

6-S D
1962-343 S10
1241-927 S30
1030-510 B27

23-S D
2033-528 S11
2052-785 S30
2033-528 T10
3650-765 T16
7019-068 T29
1306-302 U06
-927-182 U25
3814-560 V24
2033-528 X44+
1030-615 B27

45-S D
2057-589 S24
7017-811 S26
2069-930 S49
1030-518 B27

67-S AD
2103-899 S32
7101-167 S33
-762-248 S36

J4 6000-750 S36
FR 2077-417 T05
ZA 7100-588 T19
GB 1341-915 U52
CH -557-174 W05
CA -964-585 W14
DS 2103-899 X01
NO 7603-425 X49
NI -158-072 A45
IT 1030-520 B27

52761-S D
BE -762-382 S32+
NL 7101-421 S34
J4 6001-820 S40
DT 2005-293 S47
FR 2079-261 T06
GB 1290-117 T38
DT 2005-293 T45
CA -926-693 U23
CH -535-543 U25
NL -159-265 B10+
IT 1030-521 B27+

52843-S ADG
BE -762-527 S32
DT 2011-899 S40
GB 1287-545 T35
IT 1030-515 B27

57707-S D
DT 2107-201 S36
J4 6001-400 S38
FR 2078-900 T05
BE -770-944 T07
ZA 7105-121 T19
CA -911-246 T42
NL 7110-959 U09
CH -533-425 U19
US 3765-904 U44
GB 1338-679 U48
IT 1030-522 B27

72006-S BCD
BE -766-492 S45
NL 7100-529 S46
DT 2120-929 S47
US 3642-574 T11
FR 2092-112 T16
ZA 7201-382 T52
GB 1316-168 U19
GB 1317-710 U21
CA -934-295 U41
J7 3041-534 U50
SW 7403-908 W01
IL --36-329 W21
CH -565-863 W38
CS 7102-008 B06
DS 2120-929 B27

74928-S AD
BE -767-367 S47
DT 2124-526 S49
NL 7106-788 S49
ZA 7103-247 T06
FR 2091-821 T16
GB 1304-803 U05
CA -947-608 V23
CH -551-486 V36
DS 2124-526 B27

76534-S DE
BE -767-887 S48
DT 2126-589 S50
NL 7107-446 S50
J4 6007-586 T03
FR 2093-896 T18
ZA 7103-410 U06
GB 1315-363 U18
CH -559-771 W17
GB 1395-031 W21
CA -991-501 X28
J7 7003-408 Y08
DS 2126-589 B27

77458-S D
FR 2069-826 S49
BE -775-414 T21
DT 2156-176 T22
ZA 7107-714 T52
GB 1375-709 V48
CA -962-384 W08
DS 2156-176 B27

11642-T D
DT 2033-545 T08
US 3650-766 T16
NL 7019-069 T29

GB 1306-303 U06
CA -927-181 U25
IT 1030-616 B27

12122-T DE
NL 7110-603 T08
DT 2138-038 T14
FR 2099-419 T25
CA -949-976 V28
GB 1360-826 V30
US 3839-391 V41
J7 4048-409 W04
NL -159-943 B17
DS 2138-038 B27

17847-T D
BE -772-091 T11
NL 7112-558 T13
GB 1273-099 T18
FR 2107-570 T32
CH -534-486 U22
US 3808-342 V19
CA -955-452 V42
IT 1030-525 B27

39575-T D
DT 2157-344 T25
J4 7011-976 T26
FR 2114-920 T43
GB 1343-359 V02
US 3821-442 V28
J7 5015-855 W27
IT 1030-652 B27

52450-T D
FR 2108-460 T33
IT 1030-517 B27

58981-T DE
BE -779-630 T37
DT 2208-248 U38
FR 2171-978 U50
DS 2208-248 B27+

63262-T DEF
NL 7202-574 T40
DT 2211-623 T41
ZA 7201-516 T52
FR 2128-692 U05
BE -780-315 U16
CH -540-382 U44
GB 1388-872 W13
GB 1388-871 W13
J7 5040-403 X04
CA -995-411 X37
DS 2211-623 B27

74816-T BD
NL 7205-995 T47
DT 2122-298 T49
FR 2182-705 V06
US 3806-416 V18
GB 1359-403 V28+
US 3907-644 W40+
US 3912-588 W43
CH -572-067 X12
CA -993-386 X32
DT 2167-034 Y39
DT 2167-035 Y41
SU -532-341 A08
DS 2122-298 A27
DS 2167-035 A39
SW 7900-292 B27

10117-U BD
FR 2132-833 U08
IT 1030-524 B27

17591-U D
DT 2244-310 U13+
J4 8043-708 U45
US 3867-301 W09+
GB 1399-927 W27+
J7 6021-006 X30
J5 2044-803 Y20
J7 8014-565 A24
DS 2244-310 B27+

30487-U ADF
DT 2155-941 U22
DS 2155-941 B27

38037-U BCD
NL 7216-891 U27
DT 2261-270 U29
FR 2163-550 U41
J4 8072-385 V01
GB 1410-079 W42

J7 5037-756 X02
CA -992-893 X31+
CH -588-558 Y29
SU -503-532 Y44
DS 2261-270 B27

58695-U D
FR 2162-606 U40
IL --38-326 W15
IT 1030-658 B27+

61502-U BDE
BE -798-890 U41+
NL 7305-828 U46
DT 2321-461 U47
FR 2182-211 V05+
US 3825-472 V31+
J4 9080-289 V51
J4 9001-794 V17
ZA 7302-869 V22
J4 9036-888 V31
J4 9048-891 V39
DS 2321-461 W26+
GB 1430-842 X15+
CH -574-501 X23+
CA -995-163 X36+
SU -526-295 Y45+
CS 7302-931 Y47+
HU T014-957 A23+
IT 1030-538 B27+

62769-U ABD
NL 7304-330 U42
BE -797-501 U42
DT 2215-539 U44
ZA 7302-180 V06
FR 2186-479 V10
DL -108-099 V48
HU T009-884 W26
DL -114-083 W36
US 3910-825 W42
GB 1413-381 W46
GB 1413-383 W46
OE 7402-926 X03
IL --41-885 X18
OE 7410-089 X36
US 4044-196 Y35+
CH -594-009 A02
SU -537-630 A03
CS 7302-221 A29
CS 7702-654 A29
CS 7702-655 A29
CA 1036-746 A35
SU -589-930 A49
CA 1052-045 B17
IT 1030-795 B27

00594-V ADG
NL 7308-139 V01+
DT 2330-328 V03+
J4 9032-933 V43
J4 9018-924 V43
GB 1423-633 X06+
US 3971-766 X32+
US 3983-297 X41+
CA 1012-683 Y27+
NL -153-594 Y28+
DS 2330-328 B19+
J7 9010-976 B23
J7 9014-607 B27

02744-V CD
NL 7208-608 V02
BE -801-300 V03
DT 2331-946 V03
FR 2188-965 V12
ZA 7304-141 V25
J4 9047-150 V28
DS 2331-946 W04
GB 1386-918 W11
US 3993-785 X49
CA 1021-187 Y49
SU -623-496 B27

10151-V DJ
J4 8082-088 V06
J7 9014-677 B27

13867-V D
DT 2337-406 V08+
SW 7315-235 W27
CH -564-968 W38
CH -564-969 W38
CA 1005-217 Y10+
DS 2337-406 B27+

18403-V BD
J4 8103-715 V10
US 3809-748 V20
CA -994-691 X35
J7 9014-647 B27

30763-V BD
BE -805-923 V17
NL 7314-342 V24
DT 2340-562 V24
DL -107-071 V37
FR 2207-986 V39
ZA 7307-275 V43
J4 9093-590 V45
US 3871-966 W13
GB 1403-688 W34
SU -464-128 X06
CA -983-873 X10
CH -606-427 A48
J7 9014-676 B27

33026-V BD
DT 2351-738 V18+
FR 2202-938 V29+
J4 9061-391 V42
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38642-V D
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41523-V D
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64771-V D
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71222-V D
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88163-V D
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24682-W DE
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GB 1429-580 X13
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28444-W BDJ
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SW 7412-391 W22+
SF 7402-876 W28+
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HU T015-076 A27+
IT 1030-641 B27+

32506-W DE
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32775-W BCD
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GB 1485-457 Y37
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J7 9014-680 B27

34582-W BCD
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J5 1023-259 X15
GB 1452-845 X43+
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CA 1056-838 B27+

38073-W DE
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GB 1479-731 Y28
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39247-W DE
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42077-W D
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GB 1464-264 Y06
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42684-W D
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48148-W BD
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GB 1430-558 X14
IT 1030-707 B27

48149-W BD
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GB 1433-470 X18
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J5 0107-005 W42
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GB 1489-771 Y43
IT 1030-975 B27

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NL 7500-299 W31+
SW 7500-273 W36+
SF 7500-059 W40+
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OE 7500-155 B09+
CH -609-375 B12+
IT 1030-976 B27+

54754-W BD
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J7 9014-671 B27

59122-W D
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NL 7502-109 W37
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SW 7501-926 W42
DK 7500-685 W48
FR 2262-100 W50
SF 7500-433 W51
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CA 1056-645 B27

60848-W D
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SW 7409-948 W37+
IT 1030-733 B27+

62264-W AD
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64270-W BD
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64690-W AD
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67115-W BCDE
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DS 2462-836 B27+

69273-W D
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74343-W D
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74534-W D
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OE 7400-548 W45
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31015-X BD
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J7 9014-666 B27

36109-X D
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89067-X ADJ
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57506-Y D
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67151-Y D
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74430-Y D
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21668-A D
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28873-A D
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GB 1545-404 B19+
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DK 7704-518 A26
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NL 7712-270 B21+
DK 7704-899 B25+
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J5 4066-630 B27+

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SF 7800-797 A46
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ZA 7801-472 B18
GB 1548-078 B27

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DL -135-28

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US 4158-72

53859-A B
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BE -862-97
NL 7800-39
SW 7800-36
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SF 7800-08
ZA 7800-30
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PT --67-53
DL -135-28

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SW 7801-00
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FR 2394-49
BR 7708-10

58988-A DE
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BE -863-66
SW 7800-97
J5 3102-89
FR 2379-47
GB 1548-15

65374-A AC
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DK 7803-40
FR 2404-40

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-059 B16
-181 B27
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2-779 B27

D
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4-458 B01
1-848 B02
5-033 B27

BCD
16-636 A40
03-881 B16+
46-257 B17+
06-244 B18+
04-221 B26+
10-058 B27+

A BD
13-021 A41+
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27-401 A50
84-790 B01+
08-927 B21
01-992 B23+
066-603 B27
808-363 B27

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7810-761 B25
4066-594 B27

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2730-277 B05
7807-497 B07+
2737-268 B10
2738-933 B12+
2396-543 B15+
2010-933 B27+

44-A D
2379-780 A45+
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7800-335 A38+
7800-620 B18+
2757-644 B27+

26-A BD
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2820-463 A47+
7805-002 A48+
3139-793 B03
2390-455 B07+
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4066-604 B27
7811-491 B27

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NL 7808-377 B15+
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BR 7805-103 B20+
FR 2403-749 B26+
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DT 2738-403 B10
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J7 9015-271 B27

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GB 2010-665 B27

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FR 2404-697 B27

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DT 2744-297 B16
FR 2404-673 B27

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FR 2404-847 B27

10024-B DF
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NL 7809-828 B16
DK 7804-351 B21
SW 7810-363 B22
FR 2404-996 B27

10320-B ADE
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BR 7804-600 B21+
J5 4064-646 B27+

10380-B D
FR 2389-416 B06
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11937-B D
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DK 7804-348 B21
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FR 2404-405 B27

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SW 7808-864 B14
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DK 7803-741 B15
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FR 2401-102 B22
SF 7802-593 B22
J5 4063-545 B27

18062-B CD
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DT 2846-956 B19
NL 7810-617 B20
GB 2010-659 B27

18063-B ADF
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GB 2010-703 B27

18077-B CDEF
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NL 7810-841 B22+
GB 2008-640 B23+
DK 7804-785 B26+
SW 7810-771 B27+

18397-B AD
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NL 7808-586 B27

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SW 7811-895 B27

24007-B D
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NL 7811-974 B26
GB 2010-903 B27

24010-B BDJ
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DT 2850-503 B22+
GB 2008-248 B22+
NL 7811-478 B23+
DK 7805-168 B27+

24299-B BD
GB 1543-029 B13
DT 2757-497 B27+

25655-B DEF
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NL 7809-976 B16+
DT 2843-142 B16+
GB 2006-847 B19+
FR 2404-699 B27+

25905-B DE
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DT 2743-607 B15
NL 7809-778 B16
GB 2006-255 B18
SW 7810-097 B20
DK 7804-281 B21
FR 2404-671 B27

25936-B DE
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NL 7809-818 B16
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J5 4059-469 B25
FR 2404-700 B27

26332-B DJ
DT 2743-608 B14
BR 7806-380 B19
FR 2404-459 B27

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J5 4065-096 B27

28032-B D
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NL 7808-541 B17
FR 2404-604 B27

28050-B D
DT 2744-350 B15
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28081-B BD
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J5 4054-697 B24
FR 2404-665 B27

28144-B DE
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BR 7806-382 B19
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FR 2404-672 B27

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FR 2404-621 B27

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DT 2842-266 B15
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NL 7809-952 B17
J5 4052-749 B23
FR 2404-406 B27

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NL 7804-119 B16+
SF 7802-755 B25
FR 2404-518 B27+

28273-B D
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SW 7810-080 B20
FR 2404-484 B27

28278-B D
GB 2004-859 B15
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SW 7710-986 B20
FR 2404-606 B27

28289-B D
GB 2004-997 B15
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FR 2404-804 B27

29781-B DJM
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DT 2802-576 B26
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29793-B D
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GB 2010-656 B27

30019-B ADF
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GB 2007-245 B20
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FR 2404-655 B27

31622-B CD
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DT 2757-036 B27

31634-B BDE
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DT 2855-829 B27
GB 2010-826 B27

31645-B D
BE -873-023 B17
DT 2757-897 B27+
GB 2010-779 B27

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GB 2008-088 B22
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33367-B D
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33536-B CD
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DK 7804-693 B24
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SW 7811-458 B27
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GB 2008-116 B22
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DK 7805-132 B27+

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NL 7812-046 B26+
GB 2010-767 B27+

44432-B DEFJ
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DK 7705-183 B27+

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GB 2010-309 B26+
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45884-B D
DT 2755-310 B25
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GB 2010-692 B27

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GB 2010-677 B27

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GB 2010-792 B27

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47160-B D
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GB 2010-678 B27

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47189-B D
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DT 2757-860 B27

47205-B CDM
BE -873-048 B26+
DT 2855-690 B27+

47208-B ADE
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DT 2855-778 B27
GB 2010-892 B27+

47439-B DJ
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EP ---2-509 B26
WP 7900-356 B27

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GB 2010-325 B26
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48997-B D
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49005-B BCD
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49015-B BCDE
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49016-B BCDE
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49035-B BD
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49043-B D
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DL -135-288 B27

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49236-B AD
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49247-B DJ
DT 2757-209 B27

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49250-B D
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49260-B D
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49263-B ADEF
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49268-B DG
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49312-B ADEG
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49313-B ADE
DT 2758-022 B27+

49323-B D
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GB 2010-809 B27

49417-B BCDE
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GB 2010-805 B27

49430-B ADE
DT 2855-776 B27
GB 2010-893 B27+

49431-B DE
DT 2855-777 B27

49436-B DEFM
DT 2855-822 B27+

49447-B D
DT 2856-195 B27+
GB 2010-658 B27+

49452-B D
FR 2404-392 B27

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FR 2404-420 B27

49455-B D
FR 2404-428 B27

49456-B DE
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49457-B DE
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49459-B DJ
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49463-B D
FR 2404-473 B27

49471-B D
FR 2404-605 B27
PT --68-548 B24

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FR 2404-616 B27

49503-B D
GB 1548-077 B27

49509-B D
GB 2010-661 B27

49512-B ADJ
GB 2010-689 B27+

49513-B D
GB 2010-690 B27

49527-B BCDE
GB 2010-823 B27

49528-B BDE
GB 2010-825 B27

49529-B DE
GB 2010-829 B27+

49536-B ABD
GB 2010-847 B27

49538-B ACD
GB 2010-851 B27

49551-B ADE
GB 2010-895 B27+

49565-B D
GB 2010-975 B27+

49625-B D
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49816-B ADE
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49819-B DE
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49820-B DE
J5 4064-645 B27

49821-B AD
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49822-B D
J5 4064-672 B27

49823-B D
J5 4064-683 B27

49824-B CD
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49825-B BD
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49826-B BD
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49827-B BD
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49828-B BD
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49829-B BD
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49831-B DE
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49832-B ABD
J5 4064-882 B27

49869-B D
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49870-B DEJ
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49876-B DJ
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49878-B DHJ
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50001-B CD
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50002-B AD
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50037-B DJ
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50038-B ADJ
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50042-B DH
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64270W B04D16
12856Y B02D16
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7 14727W D13E13
8 34582W B03C02D13
8 32506W D23E15 + P1
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11 49080B C03D15
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59 49096B B04D16

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56 49142B D22P3R1
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284 53859A B02C02D13
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• 841 50326B D18

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WP 7900
=346 44432B D25E36F06J03
=347 44432B D25E36F06J03
=356 47480B D22P3

WEEK B28
29 AUGUST 79
50861B - 52529B

CENTRAL PATENTS INDEX
CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

ABSTRACTS

INDEXES

- **II - PATENTEE**
- **V - BASIC NUMBER**
- **VII - PATENT NUMBER**

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	3 JUL - 9 JUL 79	873,280 - 873,366
-Non Delayed	2 JUL 79	874,536 - 874,698
BRAZIL	8 MAY 79	7,800,047 - 7,807,157
	26 JUN 79	7,806,855 -7,808,230
CANADA	26 JUN 79	1,057,001 - 1,057,450
CZECHOSLOVAKIA	30 MAR 79	6,706,539 - 7,808,847
DENMARK	18 JUN 79	7,705,190 - 7,805,318
W. GERMANY		
-DAS	5 JUL 79	1,418,783 - 2,855,395
-OLS	5 JUL 79	2,735,876 - 2,900,131
FRANCE*	4 MAY 79 (BOPI 8 JUN 79)	2,405,001 - 2,405,627
UNITED KINGDOM	11 JUL 79	1,548,241 - 1,548,420 2,011,231 - 2,011,770
JAPAN		
-Unexamined	—	46,001,122 - 53,073,294
	29 MAY - 5 JUN 79	54,066,924 - 54,070,300
-Examined	14 JUN - 20 JUN 79	79,015,321 - 79,016,240
NETHERLANDS	25 JUN - 1 JUL 79	7,714,167 - 7,901,867
NORWAY	18 JUN 79	7,703,389 - 7,901,421
PORTUGAL	22 JUN 79	67,865 - 68,731
SOVIET UNION	—	624,014 - 625,305
SWEDEN**	25 JUN 79	7,708,913 - 7,901,712
UNITED STATES		
-Reissues	26 JUN 79	Re30,038 - Re30,039
-Patents	26 JUN 79	4,158,892 - 4,159,541
SOUTH AFRICA	JUNE 79	7,703,378 - 7,806,902

*Printed patents actually published mid - late June, 1979

**Includes numbered Basics from Weeks B15 and B16

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

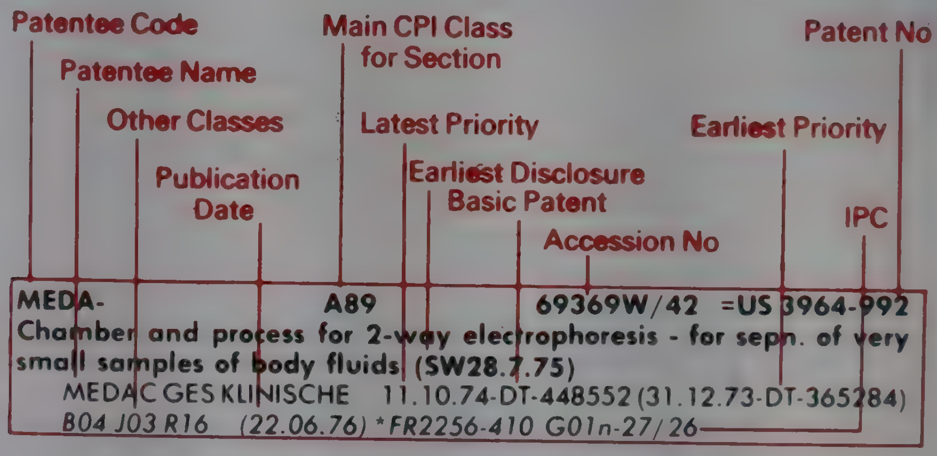
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- **A89** **69369W/42** **=US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11: BAKING

★ D11 B/28 ★CS 7708-277
lacking in layers
ASEK M 12.12.77-CS-008277
0.03.79) A21c-11

★ D11 B/28 ★CS 7708-278
netering system
ASEK M 12.12.77-CS-008278
0.03.79) A21c-11

D11 75806S/48 =DS 2065-772
artaric acid esters useful as free flow bakery emulsifying -

NAMIT NOBEL AG 02.05.70-DT-021565 (02.05.70-DT-065772)
(05.07.79) *NL7103-042 A21d-02/22

sifier for yeast doughs is a solid, pourable powder of
etyl tartaric acid ester which is produced by reacting
. of a partial glyceride (57-63% monoester content)
4-22C fatty acid (iodine value <5) with 0.9-1.7
. (1.2-1.5 mols) diacetyl tartaric anhydride and 0.01-
nol (0.1 mol.) tartaric acid at 70-80°C with stirring,
ng in vacuo to 115-120°C and holding in the vacuum
hrs. at that temp. The prod. is then mixed with asc-
acid.
he powdery nature of the emulsifier makes it more co-
ient to use and enables dosages to be more accurately
d to the doughs. 2.5.70 as 065772 Div. ex 2021565
922)

W/ ★ D11 51057B/28 ★DT 2758-643
y dispensing machine for waffles - using pressurised fluid for
y transportation and dividing into portions
CHMIDT M 29.12.77-DT-758643 (00.00.77-DT-701765)
(05.07.79) A21d-13/08

Parent Patent described a machine for filling honey
waffles. Instead of the original manual operation, pn-
atic or hydraulic means are not applied both to trans-
t the honey from the storage tank to the dispensing noz-
, and for the severing of the honey strands into the
vidual portions.
This makes the machine suitable for mass production
tead of in small numbers. The honey is divided into ex-
ly equal portions in a hygienic way. 29.12.77 as 758643
to 2701765 (6pp39)

A- ★ D11 51176B/28 ★FR 2405-020
ding device for loaves into shelved wagons - for passage in
ups to subsequent treatment posts
CERALIMENT-LU BRUN 07.10.77-FR-030222
(08.06.79) A21c-15

er removing the loaves from their baking-tins they are
lected in batches and transferred to a selective elevat-
which stacks them in a trolley running on a guide rail.
ccessive loaves are placed across the conveyor belt and
me up against the stop in groups of the desired number.
e drop-door is operated by a photocell and closes behind
em. A pushing device with its blade transfers the group
the conveying belt which brings it to the stop.
Another photocell operates the pusher, with its blade,
d the group is moved into the chute which leads to the
atform of the lift. This platform can be aligned with any
elf in the wagon and the pusher, with its blade, sends
e group onto the programmed shelf while the latter is
ept in position by the rider operated by the motor.
The device is entirely automatic, it is capable of oper
ing rapidly in transporting the hot, fragile loaves in
roups, without damage, to wagons for passage to various
reatment posts. 7.10.77 as 030222 (6pp519)

MAED- ★ D11 51398B/28 ★J5 4067-068
Compsn. for bakery prods. - comprises flour, wheat starch, alpha-starch, dried egg powder, etc.
MAEDA SANGYO KK 04.11.77-JA-132886
(30.05.79) A21d-13

The compsn. comprises 40-45 pts. wt. flour, 6-8 pts. wt. wheat starch, 36-40 pts. wt. α-starch and 1-3 pts. wt. dried egg powder, as well as other additives such as emulsifier, soybean lecithin, casein sodium and table salt. The α-starch may have an α-conversion of 80-85%, the starch originating from corn, wheat, etc. The emulsifier includes propylene glycol fatty acid ester, glycerine fatty acid ester, etc.

In an example, 41 pts. wt. flour, 10 pts. wt. α-corn starch (<60 mesh), 28 pts. wt. α-wheat starch (<80 mesh), 6 pts. wt. wheat starch, 2 pts. wt. dried egg powder, 0.9 pts. wt. table salt, 1 pt. wt. emulsifier, 4 pts. wt. casein sodium and 0.1 pt. wt. soybean lecithin were homogeneously blended. 4.11.77. as 132886 (3pp22)

RIJK- ★ D11 52014B/28 ★NL 7714-214
Continuous rolling of layered dough - with rotating rollers on common pitch circle between two flanges with longitudinal mixing forces on dough eliminated to give leaf finish
MACH C RIJKAART BV 21.12.77-NL-014214
(25.06.79) A21c-03/02

Layered dough consisting of alternate layers of dough and butter or margerine is rolled to a desired thickness by means of a series of freely rotating rollers mounted on a common pitch circle between two flanges. The flanges are rigidly mounted on a drive shaft coupled to an independent drive, preferably variable speed. The layered dough passes between the rollers and a conveying roller. The conveying roller rotates at the speed required to give the desired dough discharge rate.

The multi-roller assembly rotates at a higher speed than the conveying roller, pref. of the order of 15 x as fast A shoe with an internal contour matching the outer trajectory of the free rollers is forced by means of a spring into contact with the latter rollers at a part of the trajectory where they are not in contact with the dough. This causes the free rollers to rotate in the opposite direction so that there is no net longitudinal force exerted on the dough layers as they are compressed together.

Device enables layered dough to be rolled without mixing the margerine with the dough thereby ensuring a good quality "flaky" prod. 21.12.77 as014214(8pp1370).

UVEN= ★ D11 52089B/28 ★SU -624-589
Dough blanks shaper for biscuit mfr. - has shaping mechanism at lower end of shaft rotating around given point during shaping
UKR VENDING EQUIP 28.02.74-SU-004722
(08.08.78) A21c-11

The dough shaper claimed in parent patent 456598, has a vertical rod to which the shaping mechanism was fastened plus an attachment for raising and lowering it. The shaping mechanism was made plate-like and attached to the rod by means of bearings at an acute angle to its rotational axis, as well as being connected to the raising and lowering attachment.

The shaping quality is improved by installing the container above the shaping mechanism so that it can interact with a bushing placed inside it and connected to the rod. This container can also move axially relative to the rod to ensure a controlled gap between the shaping mechanism and the dough blank; it also has a unit for fixing it in a given position.

Bondarenko, V.V., Kaban, V.N., Sultankhodzhaev, A.S. et al. Bul. 35/25.9.78. 28.2.74 as 004722 Add to 456598 (3pp29)

FRRR D11 90091Y/51 =US 4159-348
Baba type fancy cake - comprising cellular bread allowing greater alcohol impregnation
FERRERO P & CIA SPA 07.06.77-IT-068308 (17.08.76-IT-069028)
*(26.06.79) *BE-857-760 A21d-13/06 +A21d-15/08*

A pocket-size cake prod. is produced comprising a pref. parallelepipedic portion of bread component completely enrobed with chocolate and impregnated with a spirituous sugar-contg. liqueur, in amt. $\geqslant$ 1 wt. part liqueur to 1 wt. part bread component.

Liqueur provides $\geqslant$ 35 ml. ethanol and $\geqslant$ 25 g sugar in each 100 g of bread component. Chocolate contains $\geqslant$30 wt. % of edible fat. Bread component has a prevailingly cellular structure contg. closed cells. Bread component portion contains 2 layers bonded together by a layer of cream.

Pocket cake can be prepd. commercially from a bakery dough, which is raised, then baked, impregnated with the liqueur, severed into portions, then enrobed with chocolate. 29.7.77 as 820184 (6pp931)

CAIE/ ★ D11 52476B/28 ★US 4159-349
Cheese topping for pizza pie - comprises slices which cover pie shell and food items and have apertures for venting of vapour and juices
CAIELLO J A 31.10.77-US-847199 (09.11.76-US-740288)
(26.06.79) A21d-13

A pie comprises a pie shell having a peripheral regi food items covering the shell up to the region and inc a sauce emitting vapour and juice upon heating. A ch topping is provided on the food items and comprises egral slice of pizza pie topping cheese which extends the peripheral region. The slice has several apertu for releasing vapour and juice from the food items an sauce.

The cheese topping may also comprise two semici slices or four geometrically congruent slices instead single, integral slice, and the slices, extend to the pe eral region and cover all the food items.

Used in pizza pie manufacture. The cheese toppin of uniform thickness except at the aptertures, and tex No grinding or grating of cheese and measurement of ed cheese is necessary. The apertures provide vents juices rising from the food items during baking and el ate bubbling up of the layer of cheese. The time for ing pizza pies is reduced and no obnoxious odors from en off and burnt cheese result through the use of the l (s). 31.10.77 as 847199(22pp1044)

D12 : MEAT ; FISH PROCESSING

UNIC ★ D12 50861B/28 ★BE -872-822
Cellulosic casing for foodstuffs partic. sausage - has interior coating of cellulosic ether and cationic resin
UNION CARBIDE CORP 15.12.78-BE-872822
A97 (A11) (15.06.79) A22c C08j

A cellulosic casing (possibly crinkled) has an interior coating composed of a water-soluble cellulosic ether and a cationic thermosetting resin which is water-soluble or dispersible, but which by crosslinking becomes water-insoluble. The casing can enclose a fibrous sheet, and can also contain a mineral oil, a polyol, or the water-soluble addn. product of an al kylene oxide and a partial ester of a fatty acid.

The cellulosic ether is pref. a (hydroxy)alkylcellulosic nonionic ether or an anionic cellulosic ether, being partic methylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, ethylmethylcellulose, hydroxyethylcellulose, ethylhydroxyethylcellulose, carboxymethylcellulose or carboxymethylhydroxyethylcellulose. The resin is pref. the reaction product of epichlorhydrin with a polyamide, a modified melamine with formaldehyde, a modified urea with formaldehyde, or a polyalkylenepolyamine or one of its salts.

The coating causes the casing to adhere to foodstuff, but to be easily detached from it, and does not cause excessive exudation of fat. 15.12.78 as 872822 (27pp1331)

MADS/ ★ D12 B/28 ★DK 7805-176
Sausage closure clamp and mounting method
MADSEN E 23.11.77-GB-048826
(18.06.79) A22c 21.11.78 as 005176

NEST D12 21488U/16 =DS 2246-032
Meat aroma agent - contg yeast extract, hexose and enzymes from fresh meat
MAGGI AG 28.09.71-CH-014114
*(05.07.79) *DT2246-032 A23l-01/23*

Meat aromatiser is made by (a) forming an aq. soln. of a yeast autolysate and $\geqslant$1 hexose having $\leqslant$ 25 wt. % solids, 0.5-1.5 wt. % hexose and $\geqslant$ 15 times the quantity of the latter of the autolysate, (b) mixing this soln. with 1-15 wt. % completely defatted, finely cominuted fresh meat, (c) stirring at $\leqslant$ 37°C (pH 4.0-6.0) or $\leqslant$ 15°C (pH 6.0-7.0), (d) adjusting the pH to 4.8-5.5, removing any solids, (e) justing the pH to 6.0-6.4 and (g) heating the concentra to 90-100°C for $\geqslant$15 mins.

Prod. has excellent storage stability and requires small quantities of meat to produce. 20.9.72 as 24603 (5pp922)

SPEC- D12 10660Y/06 =DS 264
Rotary meat grinder with bone-collecting facilities - esp. for p of hanburger meat, free from bone chippings
SPECO INC 17.02.76-US-658365
*P28 +P41 (05.07.79) *US4004-742 B02c-18/36*

A meat mincing machine has a perforated disc with a ral groove on the side facing the cutters which is wide than the dia. of the perforations. The groove termina at the centre in a tangential direction in an axial blind bore of somewhat larger dia. This forms around the of the worm of the mincing machine an annular pocket the collection of any bones, contained in the meat.

Experience has shown that the pocket needs clearin out only every two hrs. It minimises the passage of t bone substance with the meat, and reduces the loss of eful meat. 29.10.76 as 649305(5pp39)

SEIB/ ★ D12 51090B/28 ★DT 275
Dehydrated smoked meat products by rapid process - inclu pickling pressing, expelling juices and reducing weight smoking
SEIBOLD A 21.12.77-DT-759309
(05.07.79) A23b-04/04

The meats have the identical qualities and taste of othe such as Black Forest Ham, etc., and are produced by process which reduces considerably the nitrite and ben pyrene contents of the goods, in the shortest possible t The fresh meat after being pickled for a number of day subjected to a mechanical pressing operation which exp the fluids. The dehydrated meat which after a few day pressing has lost from 15 to 30% of its weight, is then smoked. 21.12.77 as 759309 (5pp1045)

NUTR- ★ D12 51143B/28 ★DT 2855
Animal carcass branding tool - with remote control heating segn dialling in seven-bar numeric pattern
NUTRIDAN ENG A/S 30.12.77-DK-005868
(05.07.79) A22b-05

s of electrically heated branding segments in a bar pattern like the digital figure-eight pattern. f them can be activated separately to constitute a mark. The device produces a durable and easily l identification mark. It is esp. used for identifica groups of pig carcasses with blood in same contain- later veterinary inspection. 23.12.78 as 855981 9)

★ D12 51177B/28 ★FR 2405-023

vave thawing of food items over 30 kg. in wt. - in refrigerated ent to prevent local overheating or loss of wt.

ENCE NAT VALORISATION 07.10.77-FR-030482

(08.06.79) A23b-04/06 H05b-09/06

rod. is brought into a cold chamber having a vol. times, pref. 50-100 times that of the prod. circulated air is directed onto surfaces of the prod. at <-10°C, between -25° -35°. Each individual piece of prod. radiated at 30-2000 MH_2, pref. at ~900 MH_2. The iation profile is selected to provide approximately ant dissipation of power per unit of vol. of prod. uring irradiation, the prod. is pref. rotated on its e.g. at 1-10 rpm. irradiation powder per piece od. is pref. adjusted to between 30-120 watts/hr/kg e piece. Cooling air is pref. circulated at 2-6 met- per second. Air circulation and irradiation are pref. inated, automatically in response to detection of nding wave value of 2-3 produced by the assembly of rowave emitters.

sed for thawing out frozen food prod. in lumps of g. wt. e.g. sides of beef, pork etc. and whole tunny . Very large pieces, e.g. 60-100 kg. wt. can be ved out rapidly, i.e. in periods of between 30 minutes few hours. There is no risk of cooking, local over- ting, development of bacteria etc. Loss of wt. by dation is negligible. 7.10.77 as030482 (17pp448)

D12 18222Y/11 =GB 1548-309

easing animal waste contg. over 50 percent bone - grinding, ing with water, centrifuging, drying and sieving solids

YBRON CORP 06.11.75-US-629684

*603 (11.07.79) *BE-847-991 A22c-17/04*

animal material contg. ≥ 50 wt.% bone is treated by ucing the size of the solids in the material, feeding material at a constant rate to a conditioning vessel intained at atmos. pressure, and agitating the mat- al in admixture with water in the vessel to prevent ticles of bone settling out, and heating the material. The water and heated material is passed from the vess- via an unobstructed circuit to a centrifugal separator at onstant rate and velocity sufficient to prevent particles tling out, the water and heated material is then septd. the separator into a liq. phase and defatted solids phase ntg. degreased bone.

Bone can be separated out and used in the mfr. of gel- ne. Low-fat meal may also be recovered. 4.11.76 as 5964 Add to 1316057(4pp931)

OMD ★ D12 52090B/28 ★SU -624-590

ound frozen meat and bone mixt. sepn. - by screening into ctions and sepg. by density on a vibrating table using air, used in . of sausages etc.

MOSCOW MEAT DAIRY INST 03.03.77-SU-459429

(04.08.78) A22c-17/04

e sepg. meat from bones, is used in meat-processing stallations with simultaneous prodn. of minced meat for variety of uses. The meat and bone material is frozen a brittle condition, ground up, and the resulting mixture pd. in accordance with particle size, with subsequent vision of the meat and bone according to their different nsities.

The process is intensified and more complete sepn. results, by carrying out the sepn. using the density difference with the application of vibration and compressed air. The vibration is at a frequency of 300-900 cycles/minute with an amplitude of 0.3-0.5 mm, and the flow-rate of the compressed air is 5-150 m³/hour.

Ilyukhin, V.V., Nikitin, Yu.N., Nikiforov, L.L. Bul. 35/ 25.9.78. 3.3.77 as 459429 (2pp29)

FARE= ★ D12 52337B/28 ★SU -625-126

Shaped component length-measuring device - has sensitive helical strip element which rotates across line of object conveyor, used in automatic machinery adjustment

FAR EAST POLY 14.02.77-SU-452946

R11 (08.08.78) A22c-25 G01b-05/04

Device for measuring the length of objects, as used during the automatic adjustment of working units in a variety of technical machines.

It consists of a conveyor, recording apparatus, and, mounted in the plane of the conveyor and above it, a rotating spindle to which a helical strip is attached for use as a sensitive element.

To use the equipment for measuring the length of cylindrical objects of different diameter, plus objects of conical shape, a U-shaped guide is attached, with the spindle bearing the sensitive element being kinematically connected to the conveyor and positioned at an acute angle to its longitudinal axis. One end of the spindle is held by a pivot and the other is connected to the recording apparatus, located in the U-shaped guide and being able to move freely.

Sobchenko, V.V., Tokmakov, V.M., Safonov, N.G. Bul. 35/25.9.78 14.2.77 as 452946 (3pp29)

SVSL- ★ D12 B/28 ★SW 7713-180

Stuffing or meat mixt. moulding appts. - makes patties or steaks by feeding mixt. alternately to two apertures in reciprocating plate, and punching out

SVERIGES SLAKTERIFO 22.11.77-SW-013180

(25.06.79) A23p-01

The mixt. is fed from a tube through a gap that communicates alternately with two apertures in a mould plate. While one of the apertures is being filled, its underside is closed by a bottom plate, and the patty in the other aperture is punched out by a tool.

There are two punch tools, one on each side of the supply tube. The tools operate alternately in synchronism with the movement of the mould plate. 22.11.77 as 013180 (-pp1407)

OCHY/ D12 88460X/47 =US 4158-903

Mechanical removal of head from suspended hog carcass - by marking neck of skin and rotating head upwards after engaging hook in mouth

OCHYLSKI E 10.06.74-US-477781 (12.04.76-US-675704)

*(26.06.79) *US3990-126 A22b-03*

Appts. for removing animal carcass heads by pulling comprises an overhead system suspending carcasses head down, elements preventing the carcass rotating about its vertical axis, a hook to engage the lower jaw, and a mechanism to exert a longitudinal force on the head through the hook.

The mechanism is offset from the carcass vertical plane so that the carcass assumes a belly-down attitude and the head is rotated to the snout-up position and is removed from the carcass. The mechanism may include a flywheel, crank, lever, or air or hydraulic cylinder. 3.11.77 as 848119 Div. ex 4092762 (+12.4.76-US-675704) (10pp1358)

D13: OTHER FOODSTUFFS

UNIL ★ D13 50867B/28 ★BE -873-291
Smoke liquid concentrate for food flavouring - is prepd. by treating smoke from the destructive distn. of wood
UNILEVER NV 03.01.78-GB-000066
(03.07.79) A23b-04/04 A23l

The concentrate, obtd. from cellulosic and/or ligneous materials, contains <0.2 monograms of 3,4-benzopyrene and 1,2,5,6-dibenzanthracene; < 1 μg/kg of tars, expressed as polycyclic aromatic hydrocarbons; 0.9-1.6 pref. 1-1.4 g/l of phenolic cpds. expressed as phenol with a ratio of phenolic cpds. carbonyl cpds. (expressed as acetone). total titratable acids (expressed as acetic acid) of 1:(17-47):(13-40) pref. 1:20-37:14-34.

The concentrate is used to prepare a smoke flavouring agent by drying it in the presence of maltodextrin. Both the concentrate and dried agent are used to flavour foods or food ingredients. In the prepn. of the concentrate, the smoke from the destructive distillation at 350-450°C is cooled to 150-200°C to remove a 1 st tar fraction and then to 80-120°C to remove a 2nd tar fraction, and cooled to ambient temp. so that the non-condensable gas is sepd.

The process enables are more satisfactory flavour with a relatively low phenolic cpd. concn. and a relatively high carbonyl cpd. concn., are at the same time being free of physiologically unacceptable cpds. 3.1.79 as 873291 (14pp597)

STUD ★ D13 50888B/28 ★BE -874-137
Decaffeination of coffee - by treatment of thin film of aq. soln. with carbon di:oxide
STUDIENGES KOHLE MBH 17.05.78-US-906882 (13.02.78-US-877535)
(29.05.79) A23f

The surface of a thin film of an aq. soln. of coffee extract is treated with CO_2 at super-critical temp. and pressure conditions. By this means the caffeine is removed, leaving an aq. soln. free of caffeine. The aq. soln. pref. contains 20-40 (25-38) wt.% dissolved coffee solids. The CO_2 temp. is pref. 32-140°C, and pressure 75-350 bars. Treatment with CO_2 is pref. effected by passing the soln. from the top to the bottom of a packed column against a counter-current of CO_2. The caffeine can be isolated by sepn. of the CO_2 by expansion, and distn. of the caffeine soln. TheCO_2 can be recycled.

Decaffeination is carried out without requiring the prior removal of substrances imparting taste and smell to the coffee (and their subsequent re-introduction). The method is simple and short. 13.2.79 as 874137 (12pp1331)

MILE ★ D13 50906B/28 ★BE -874-624
Preparing products analogous to cheese - from protein derived from oil seeds, pref. leguminous, and esp. soya
MILES LABORATORIES INC 06.03.78-US-883880
(02.07.79) A23l

The process comprises (a) forming an aq. suspension of a material based on oleaginous seeds contg. all their fats at a pH-below 3.5; (b) submitting the suspension to shearing conditions sufficient to break the natural cellulous structure and reduce the particle size; (c) adjusting the pH to the protein is oelectric point to ppte. the protein (d) sepg. the insoluble portion (e) homogenising the insolubles to a homogeneous consisting; (f) adjusting the pH to 5.3-7; (g) incorporating sufficient flavouring to produce a cheese-like flavour.

The taste and texture of the product are better than previously proposed products. 5.3.79 as 874624 (13pp597)

BROW- ★ D13 B/28 ★BR 7806-813
Fruit juice extractor
BROWN INT CORP 17.10.77-US-842549
(08.05.79) A23n-01 16.10.78 as 006813

CANA ★ D13 50934B/28 ★CA 10
Toxin free protein concentrate - obtd. by aq. extn. of rapesee
or de:oiled meal, enzymatic hydrolysis and activated
treatment
CANADIAN PAT & DEV LTD 07.10.75-CA-237218
C03 (26.06.79) A23j-01/14

Detoxified protein concentrate is recovered from rap
flour or de-oiled metal by first extracting with an aq
tractant for the protein. The glucosinolates in the se
extract are then hydrolysed to aglycones with myrosi
Then a soln. or dispersion contg. the protein plus agly
at neutral or extraction pH is contacted with activate
carbon to absorb the aglycones and the protein is sep
recovered.

Concentrate is obtd. with about 99.5% toxin elimin
(free from oxazolidinethione and with only about 6 μg
pententyl isothiocyanate left), and it is useful for hu
consumption since the gritrogenic substances initiall
sent have been removed, it is also useful as an anim
feed, and it has a bland flavour. 7.10.75 as 237218 (

MEDV/ ★ D13 B/28 ★CS 77
Feedstuff for farm sucklings
MEDVECKY D 12.12.77-CS-008297
C03 (30.03.79) A23k-01/18

ROQF D13 74987U/49 =DS 23
Hydrogenated propoxylated starch hydrolysates - - proce
propoxylation hydrolysis and hydrogenation of starch low
ROQUETTE FRERES SA 17.05.72-FR-017703
*B04 (05.07.79) *NL7306-736 A23l-01/19 C08b-31/12*

Hydrolysed starch hydroxypropyl ether comprises hy
xypropylated glucose chains with hydrogenated termi
gps. Prepn. of these ethers comprises reaction of st
suspension with propene oxide, followed by hydrolysi
and then hydrogenation; or the starch suspension is h
olysed first, then hydrogenated and finally treated wi
propene oxide in the presence of an anion exchange re

The prods. are used as thickening agents in nutrie
and fodders. 15.5.73 as 324470 (5pp047)

MCCA- D13 17830W/11 =DS 235
Deep-frozen fried potato chips - prepd. by two-stage blanchi
hot water, drying and frying
MCCAIN FOODS LTD 29.08.73-CA-179932
*(05.07.79) *DT2359-672 A23l-01/21*

Deep frozen chips are produced by peeling raw potato
cutting them to suitable shapes, washing, blanching,
ing in hot air and finally deep drying them in fat for 3
secs. at 163-190.5°C before deep-freezing them.

The blanching is effected in two stages in the first
which the conditions are 65.6-71.1°C for 12-25 mins.
in the second of which the conditions are 79.5-96.6°C
2-6 mins., a cooling stage being interposed. Before
ing fried, the blanched shapes are dried so that they
12.18 wt.% less than the original wt. and allowed to
for 3-10 mins. at room temp.

When eventually used (i.e. heated in an oven), the
chips do not darken so much and are thuse more attra
ve foods. 30.11.73 as 359672(4pp922)

FIRM D13 26176W/16 =DS 244
Cocoa aroma flavouring mixt. - contg. aminoacid or oligope
pref. 3 acetamido-1,4-diketo-2,5-pyrrolopiperazine, and a p
deriv
FIRMENICH SA 28.09.73-CH-013957
*B02 C02 E13 + P15 (D15) (05.07.79) *DT2445-674 A23l-01*

Mixt. for flavouring cocoa, cocoa prods. and/or coco
substit tes comprises a cyclic depeptide, (5-11 pts.
or two cyclic dipeptides, (1.5-3:3 pts. wt.); and theo
min, (10 pts.wt.). Prefd. cyclic dipeptides are mixe
condensates of a range of aminoacids with glycine, al
valine, leucine, phenylalanine or proline. 25.9.74 as
445674(7pp047)

D13 51036B/28 ★DT 2758-437
ng bottle with ready-detailed information stored
ically - prevents errors, caused intentionally or otherwise,
changing bottles
AKUST-GERATEBAU 28.12.77-DT-758437
P13 R16 (05.07.79) A01j-07 G01n-01 G01n-33/04

e for the temporary storage of a sample of milk supplier, has a magnetic data store in a zone of its nference, which can be read off when the bottle is in ain position in the analysing arrangement. The store e in the form of a strip glued to the bottle or it may bedded in its material.

e arrangement has the advantage that with the maint- e of secrecy, bottles cannot be interchanged intent- y or otherwise without detection, since all the nece- information about the sample is available. 28.12.77 3437 (10pp1045)

★ D13 51111B/28 ★DT 2853-277
food packaging machine e.g. for soft cheese - has form
ing beakers and clamps transferring food to packaging
er
RARD J E M 23.12.77-FR-038951
1 (05.07.79) B65b-25

kaging machine for pasty food products such as soft e includes an endless belt with beakers in which a can be lowered and raised by a cam mechanism. This s each beaker filling to a clamping device which tran- it to a packaging cylinder.

ne cheese is always supported and can be packed in e attactive soft packages. The breakers can be readily anged if different shapes are desired or cleaning is ssary. 9.12.78 as 853277 (18pp39)

- ★ D13 51174B/28 ★FR 2405-010
ning rack for cheeses - comprises parallel, circular, cylindrical
nents mfd. by injection moulding or calendering
ERVI ETUD REALISAT 06.10.77-FR-030095
13 (08.06.79) A01j-25/11

ining rack for chesses consists of a number of parallel cular, cylindrical elements connected to each other short crosspieces, the latter are arranged in rows perp icular to the cylinders. The rack is reversible and y have special reliefs for centering the cheeses, it can placed on a fixed support, such as a drainage channel, d or table.

The rack is simple, low in cost and needs no external nforcement it is mfd. from a synthetic material by inj ion moulding or calendering. 6.10.77 as 030095 (5pp519)

AI/ ★ D13 51215B/28 ★FR 2405-616
gs with central movable part - for quick and easy prepn. of
ato fritters
MAILLARD P DE 05.10.77-FR-030620
(08.06.79) A21c-07/04

simple appts., like a pair of sugar tongs with a central ovable part, is used for the prepn. of potato fritters. e first movement gathers the material to be fried, chie mashed potatoes, into an avoid mass, the central por- n remaining to create a division with the two portions its sides.

The selected filling is applied and a second movement sembles the fritter around the filling. The restraint then relaxed and the fritter completely detached, leav- g the central piece in position, a slight tap on one side ay be needed.

The household appts. is mainly for family use but it also suitable for restaurants and community kitchens. enables filled fritters to be prepd. easily and rapidly. .10.77 as 030620 (3pp519)(W)

CH- D13 57151A/32 =GB 1548-358
od stabilised against microbial decay - contains dextrose and
uctose, at least equal sugar and water content and smaller fat
ontent (BE 27.7.78)
RICH PRODUCTS CORP 28.01.77-US-763613
*(11.07.79) *DT2803-634 A23l-03*

microbiologically stable food prod. is prepd. comprising 5-60% water, and sugar in a ratio to water of 0.5-2:1, in content is dextrose and/or

Pref. food prod. contains 15-45% water, sugar in a ratio to water of 1-2:1, 2.5-30% fat, and minor but effective amts. of salt, emulsifier, stabiliser and flavouring, such that the amt. of fat < amt. of water. Solutes content is adequate to provide the prod. with a water activity of 0.8-0.9. Foregoing ingredients comprise (either) fructose and/or unsatd. fat.

Intermediate moisture foods are prepd. having the faculty of being stored and marketed in a non-refrigerated condition. 18.1.78 as 002027(20pp931)

FUSO ★ D13 51397B/28 ★J5 4067-061
Peeled pickled radish prepn. - by removing skin with aq. sodium
hydroxide soln. then pickling with table salt, organic acid and
organic acid salt
FUSO KAGAKU KOGYO K 05.11.77-JA-133247
(30.05.79) A23b-07 A23l-01/21

Radish is washed with water, and the skin is peeled off with NaOH. The resultant is dipped in an aq. soln. of organic acid and organic acid salt so as to neutralise the radish. First stage pickling is conducted in the presence of table salt, organic acid and organic acid salt, and the second stage pickling is conducted in the presence of table salt, followed by storing in a cask.

The treatment with aq. sodium hydroxide is conducted at 60-100°C for 20-300 seconds, the concentration being 3-10%. The acid component used in the neutralisation process is, e.g. a mixt. of 30-95% of malic acid Na salt, 65-5% of malic acid and 20-5% of Na metaphosphate. The mixture is used in 1% aq. soln. The radish pickles obtd. have good taste and can be stored for long periods without degradation of the properties. 5.11.77. as 133247 (4pp22)

JACH- ★ D13 51399B/28 ★J5 4067-070
Chemical seasoning prepn. - by hot water extn. of chlorella or
scenedesmus, heating mixt. and filtering to remove duckweed
JA CHLORELLA CONSU 08.11.77-JA-133835
(30.05.79) A23l-01/22

Seasoning comprises hot water extract of chlorella or scenedesmus. The extn. is conducted by dispersing the chlorella or scenedesmus in two or three times as much volume of water, and the mixt. is heated at 80-100°C for 10-30 minutes, followed by filtration to remove the body of the duckweed. The extract is pref. treated with activated carbon to remove undesirable odour, and pH adjusted to acid range so as to remove protein component. To the extract is added another seasoning such as Na glutamate, succinic acid, sodium succinate, sodium ribonucleotide, e.g. using crystal of the agent.

The amt. of the extract to be used in the seasoning compsn. is ≤10 wt. % (pref. ≤ 5 wt. %). In an example, 80 ml of hot water extract of fresh chlorella is sprayed over 1 kg of sodium glutamate, followed by well agitation. The resultant is dried at 50°C overnight. The resultant is yellowish brown powder. 8.11.77. as 133835 (2pp22)

MEIJ ★ D13 51918B/28 ★J7 9010-620
Coating foodstuffs, tablets, etc., with a coating liq. - by passing
through counter-rotating rolls which are covered with elastic
material and have been immersed in coating agent
MEIJI KK 12.09.75-JA-110005
(08.05.79) A23g-03/20 A23l-03

A material to be coated is passed through two rolls which rotate in opposite directions at different speeds. The rolls are wound with porous elastic material and with another elastic material which is permeable to liquid, and are immersed in a coating agent before the coating operation.

The materials coated are e.g. cookies, tablets or solid foodstuffs. The coating agents are conventional liquids, emulsion and suspension. 12.9.75 as 110005 A231-3/00, A23g-3/20 (8.5.79) MEIJI SEIKA KAISHA (4pp22)(J5203804 0)

ASAE ★ D13 51951B/28 ★J7 9015-682
Mfg. oil emulsion for use in pastry - by mixing oil phase contg. fatty
acid ester of sugar with oil-in-water emulsion to give double
emulsion
ASAHI ELECTROCHEM IND KK 21.07.72-JA-072494
(16.06.79) A23d-03/02

Method comprises mixing oil phase (I) containing 20 to 80 wt.% oil and fatty acid ester of sugar of HLB of 1 to 4 with oil emulsion (II) of oil-in-water type to give oil-water-oil type double emulsion. 21.7.72 as 072494 A23d-3/02 (16.6.79) ASAHI ELECTROCHEM WITH KK (7pp83) (J49031708)

MORG D13 86973X/47 =J7 9015-829

Flowable lactulose powder prodn. from lactose soln. - by isomerisation with calcium hydroxide, heating, concentrating and drying

MORINAGA MILK KK 04.07.75-JA-081936

*B04 C03 (18.06.79) *BE-843-777 A23k-01/08 +A23c-03 A61k-31/71*

Flowable, lactulose-contg. powder is obtd. from a soln. contg. lactose by adding $Ca(OH)_2$ to the soln. to pH 9.4-11.2, heating the soln. to adjust to pH 7.5-9.0, then homogenising, concentrating, and drying the soln.

The powder is used in foodstuffs, Lactulose has a favourable effect on the intestines of nursing infants and children, and has been used as a feedstuff additives for calves, but is costly for a high purity prod. The above process uses residual liquors from a dairy, partic. lactose-reduced whey, or a soln. obtd. ultrafiltration of whey or skin milk and thus gives an inexpensive rpdo.

The use of $Ca(OH)_2$ to isomerise lactose to lactulose gives a prod. which contains available Ca (which is important for growth) and which has good fluidity. 4.7.75 as 081936 A23k-1/08, A23c-3/00, A61k-31/715 (18.6.79) MORINAGA MILK KK (16pp)(J52006660)

MORG D13 86973X/47 =J7 9015-830

Flowable lactulose powder prodn. from lactose soln. - by isomerisation with calcium hydroxide, heating, concentrating and drying

MORINAGA MILK KK 08.07.75-JA-083188

*B04 C03 (18.06.79) *BE-843-777 A23k-01/08*

Flowable, lactulose-contg. powder is obtd. from a soln. contg. lactose by adding $Ca(OH)_2$ to the soln. to pH 9.4-11.2, heating the soln. to adjust to pH 7.5-9.0, then homogenising, concentrating, and drying the soln.

The powder is used in foodstuffs, Lactulose has a favourable effect on the intestines of nursing infants and children, and has been used as a feedstuff additives for calves, but is costly for a high purity prod. The above process uses residual liquors from a dairy, partic. lactose-reduced whey, or a soln. obtd. ultrafiltration of whey or skin milk and thus gives an inexpensive prod.

The use of $Ca(OH)_2$ to isomerise lactose to laculose gives a prod. which contains available Ca (which is important for growth) and which has good fluidity. 8.7.75 as 083188 A23k-1/08 (18.6.79) MORINAGA MILK KK (12pp) (J52006661)

CARR/ ★ D13 B/28 ★PT --68-635

Prepn. of potatoes ready for cooking - by peeling, cutting and packing in sealed containers

DOS S CARRICO A J 09.10.78-PT-068635

*(22.06.79) A23b-00/**

KEMI- ★ D13 B/28 ★PT --68-651

Prepn. of stable edible emulsions contg. amide(s) - for use in animal feeds

KEMIN IND INC 09.01.78-US-867809

*C03 (22.06.79) A23k-00/**

LOVE D13 24948V/14 =SU -624-561

Nicotine-contg. chewing gum - also contg. buffer system, used as substitute for smoking

LEO AB 16.11.72-US-307397

*P15 (D18) (31.08.78) *BE-807-414 A23g-03/30*

The gum contains 15-80% nicotine and a solid water buffer system which, during mastication, raises the pH of the saliva above its physiologically normal value. The gum may contain e.g. 1-3% of a buffer based on alkali metal carbonates or phosphates, opt. in conjunction with alkali metal bicarbonates. The buffer, pref. holds the pH of the saliva at 8-10 during 5-10 mins., chewing, and obviates the irritation of the mouth and throat normally associated with nicotine-contng. gums, giving prod. which provides the same satisfaction as smoking tobacco.

Ferny, U.B., Olson, K.B.I. Bul. 34/15.9.78. 14.1 as 972054 (3pp)

BELG= ★ D13 52092B/28 ★SU -62

Kefir-type fermented milk prodn. - by adding to milk co chloride or lactate before introduction of microbial fermen starter to improve flavour

BELGOROD DAIRY PROD 13.02.76-SU-325844

(D16) (08.08.78) A23c-09/12

Kefir is produced by pasteurising normalised milk, h genising, cooling, souring and maturing. The quality the product is improved and the souring is intensified adding to the milk, before the introduction of the sour preparation, a soln. of $CaCl_2$ or calcium lactate.

The pasteurisation of the milk is carried out at 92-95 °C for 30 min., or continuously at 110 °C. $CaCl_2$ is pref. introduced in the form of an aq. 40% soln., in a amt. corresp. to 0.02-0.04 wt.% $CaCl_2$ w.r.t. the mi Calcium lactate is pref. introduced in the form of a 30 soln. is skimmed milk, in an amt. corresp. to 0.001-0.004 wt.% of the solids (w.r.t. the milk).

Bondarev, V.Ya., Khudolin, N.I. Bul. 35/25.9.78. 13.2.76 as 325844 (2pp70)

AMNU= ★ D13 52093B/28 ★SU -62

Butter product obtained from milk and vegetable fat - by for emulsion contg. spherules with uniform glyceride comps lipoprotein envelopes

A MEDICINE NUTRITIO 02.02.77-SU-450042

(03.08.78) A23c-15/02

Butter product is obtained by introducing into milk 25-wt.% (w.r.t. the milk) of a vegetable fat, mixing, pas eurising, maturing and processing the mixt. to produc butter-like consistency. This method is improved by ing as a starting component plain milk; heating the mi 60-75 °C; separating milk-fat emulsion contg. 35-45% fats; and pasteurising. By this method, emulsion is o contg. fat spherules with uniform glycrride compsn., which are fully protected by lipoprotein envelopes.

In order to intensify the formation of butter grains, milk-fat-emulsion is matured at 1-3 °C for 2-3 hr., a the churning is carried out at the maturing temp. Aft the pasteurisation, the milk-fat emulsion is sepd. to a content of 60-83%. The processing should be carried with cooling so that the temp. of the final product is 6-The product has consistency and taste of pure butter. vegetable fat can be e.g. deodorised maize oil..

Silin, V.M., Pereslegina, N.A., Fursova, S.A. et al Bul. 35/25.9.78. 2.2.77 as 450042 (3pp70)

INPR= ★ D13 52338B/28 ★SU -625

Tea processing temp. change rate monitor - with measuring bri amplifier connected to threshold at input to NOT/gate for d circuit

IND PROC AUTO RES 29.11.76-SU-424282

R14 (25.08.78) G01k-17/08

Known circuitry contains temp. sensors, measuring br d.c. amplifier, a forming circuit contg. threshold and nalling unit, supply and indicator. In this case only a temp. setting is signalled. Now delay circuit (AND-ga time relay and NOT-gate are added to monitor the rate change of temp.

This temp. monitoring system is useful in automatic -cessing of tea. It can be used in curling and fermenta processes, where the rate of temp. change is characte istic of the intensity of the process and approach of the rate to zero signifies the end of the process. Prompt -vention is now possible, to improve tea quality.

Sharikadze, A.P., Mgebrishvili, N.N., Torondzhadze G.I. Bul. 35/25.9.78. 29.11.76 as 424282 (2pp840)

FILP- ★ D13 52381B/28 ★US 4158

Selective peach pitter - which performs torque pitting of sou pitted peaches and spoon pitting of split-pitted peaches

FILPER CORP 17.11.77-US-852376 (02.09.75-US-609874)

(26.06.79) A23n-04/04

A clingstone peach pitter having peach-bisecting blades and pit-grippers includes a U-shape coring spoon adjac nt the blades in a position to extend around one-half of pit perimeter. A detector is responsive to movement one of the pit-grippers past the edges of an unsound pi ving the spoon into an operative position so that n of the peach halves by the grippers causes the o cut a core including the unsound pit from the

knives or spoon are automatically projected into pped halves when the blade passes between a split that the peach is spoon-pitted. Mutilation of the halves is eliminated. The pitter automatically tor-ts sound-pitted peaches and spoon-pits split-pitted es. 17.11.77 as 852376 (12pp1044)

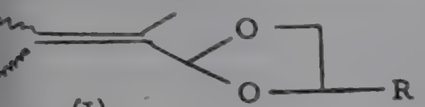
D13 52475B/28 ★US 4159-347

acetal or 2-methyl-2-pentenal - used to augment or enhance of a foodstuff, chewing gum, medicinal prod. or tooth-paste

FLAVORS & FRAGR INC 05.09.78-US-939911 (24.08.77-US-253)

E13 (D21) (26.06.79) A23l-01/22

d of augmenting or enhancing the flavour of a food-comprises adding 0.5-100 pts. per million of a cyclic of 2-methyl-2-pentenal of formula (I). In (I), R is H or Me; the wavy lines represent a cis or trans configuration with respect to the carbon-carbon double bond.


(I)

ompsns. contg. (I) possess sweet, fruity, gooseberry n, aniseed, licorice, floral and herbal aroma characteristics and sweet, fruity, gooseberry, green, spearmint, eed, licorice, floral and herbal flavour characteristics albedo like nuances. (I) may be added to foodstuffs, ing gum, medicinal prods. and toothpastes. 5.9.78 as 11 (12pp954)

E- D13 65363A/37 =US 4159-350

lting whey using anionic and cationic exchangers - in hydrogen onate and ammonium form respectively, then regenerating

VENSKA MEJERIER 10.05.77-SW-005424

*(26.06.79) *BE-866-763 A23c-21 +A23c-09/14*

Whey is desalinated using anion and cation exchangers by passing whey through a weakly basic anion exchanger working in hydrogen carbonate form so the anions in whey are exchanged for HCO_3 ions, and then through a weakly acidic cation exchange working in NH_4 form so the cations in whey are exchanged for NH_4 ions.

The ion exchangers are regenerated by treatment with NH_4HCO_3 soln. The ions in the whey are removed by evapn. as CO_2NH_3 and water vapour. The capacity of the ion exchanger is restored no more often than every second cycle by treating with an acid and then an alkali.

Process is continuous and less polluting and a high desalination is achieved. 3.5.78 as 902532(6pp982)

USDA ★ D13 52477B/28 ★US 4159-351

Mixed bean salad prodn. - by separately precooking different bean varieties, then combining in acidic marinade

US SEC OF AGRICULTURE 30.01.78-US-873570

(26.06.79) A23l-01/20

A mixed bean salad is prepd. by (a) independently treating different varieties of beans to render them quick cooking; (b) independently cooking the beans in water at 90-100°C until extractable pigments are removed i.e. for 1-10 mins; (c) rapidly cooling the beans by contact with cold water; (d) mixing the beans in a marinating liq. with a vinegar base; (e) sealing the mixt. into a container; (f) heating the container to finish cooking the beans and sterilise the mixt.

The process is cheaper, quicker and less laborious than known processes, and gives a prod. with an attractive appearance, and excellent texture and flavour. 30.1.78 as 873570(3pp955)

See Also

D23 J5 4070208 D23 US 4159258

D14: FOODSTUFF MACHINERY

D D14 84194X/45 =J7 9015-824

yurethane roll for removing rice hulls - having elasticity, rdness, and abrasion resistance

BRIDGESTONE TIRE KK 12.03.75-JA-029102

*A88 P41 (A25) (18.06.79) *J51107-948 B02b-03/04 B29h-09/11 +C08g-18/83*

roll consisting of a rubber-elastic body having suitable asticity and hardness, and having anti-abrasiveness is ed for removing rice hulls. To 100 pts. of (a) prepoly-er having isocyanate radical in termination, 5-30 pts. of) vinyl cpd. of aryl cpd. having isocyanate radial in ter-ination and 0.5-1.0 parts of (c) radical initiator are add-. To the mixt. (d) polyamide and/or polyol and 0-0.1 pt. (e) an accelerating catalyst for chain-extension reaction re added.

The mixt. is hardened by heating. The amt. of (d) sed is 0.8-1.2 equivs. (the sum of active hydrogen) .r.t. (a) isocyanate. The polyurethane compsn. obtd. used to produce the roll. 12.3.75 as 029102 B02b-3/04, 29h-9/11; C08g-18/83 (18.6.79) BRIDGESTONE TIRE KK 3pp)(J51107948)

TOR- ★ D14 52013B/28 ★NL 7714-208

pray drying of viscous food products with atomising nozzles - fed y high pressure pump and heat exchanger spray temp. allowing naterial to boil as it enters drying chamber

STORK FRIESLAND BV 21.12.77-NL-014208

J08 Q76 (25.06.79) F26b-17/10

A spray drying process is described using a feed vessel for viscous solution of the material to be dried, a mono-pump, a heat exchanger by means of which the temp of the soln under ... is raised to a value higher than the pt of the soln ... but below the boiling point at the pressure existing in the feed line to the tower, at least one nozzle and a drying chamber into which the drying heat is introduced. The atomisation at the spray nozzle is accompanied by a reduction in pressure which causes the solution to boil.

The system enables highly viscous products to be spray dried with a minimum of energy use. Food products are automatically sterilised. 21.12.77 as 014208(7pp1370).

FARM= ★ D14 52094B/28 ★SU -624-594

Fruit grader belt conveyor - has endless belts over pairs of upper and lower pulleys with lower pulley channels close together to give gaps for fruit to fall through

FARM MACH CONS INST 14.02.77-SU-452961

(08.08.78) A23n-15

The device comprising two pairs of upper and lower pulleys with channels to accept endless conveying belts, with the grading compartments formed in between them, plus guiding plates for the graded fruit.

Unimpeded removal of the graded fruit is carried out by displacing the channels on the lower pulleys so that each subsequent channel come up directly adjacent to the preceding channel, which groups the belts into blocks. Directly above the belts in each individual block is an elastic screen.

Kirienko, Yu.I., Kolchin, N.N., Lyamenkov, Yu.A. et al

Bul. 35/25.9.78. 14.2.77 as 452961 (3pp29)

ODSU= ★ D14 52095B/28 ★SU -624-595

Cutting device to remove ends of root crops - has telescopic weights to orient roots relative to knives as a rotor turns to reduce waste

ODESS SUPPLY MACH 26.04.77-SU-481438

(04.08.78) A23n-15/04

The device consisting of a cylindrical rotor fastened to a shaft with carriers, which are fitted with holders, each of which includes a weight with depressions for the roots, and knives.

The amt. of waste material is reduced, due to a much more defined fixation of roots of different dimensions, by giving each of the holders an additional weight, which is constructionally the same as the main weight. All the weights are mounted coaxially, so that they can be moved one inside the other. The smaller diameter weight is provided with a pin which passes through grooves or slots in succeeding weights and in the carriers.
Olevich, Zh. V., Korsunskii, I.R. Bul. 35/25.9.78. 26.4.77 as 481438 (3pp29)

BUSH/ ★ D14 52097B/28 ★SU -624-599
Domestic fruit juice extractor - has cylindrical filter drum with flexible helical guides for pulp and additional toothed wheel and bladed crushing units
BUSHIN I F 19.10.76-SU-414493
P28 (07.08.78) A47j-19

The extractor body has a pipe to withdraw the pulp and a cylindrical filter positioned coaxially inside it, plus a crushing unit in the form of a toothed drum mounted at one end.

The juice yield is increased by adding flexible helical guides along the external surface of the filter drum, plus an additional filter of similar construction installed coaxially to the main filter drum. An auxiliary crushing unit
made with blades is placed inside the additional filte
on the same shaft as the drum. Each of the blades i
ed with a rubber end and a valve is included on the p
extracting pipe.
Bushin, I.F. Bul. 35/25.9.78. 19.10.76 as 414493
29)

ZVON- ★ D14 B/28 ★SW 77
Food portions shaping appts. - respective halves of mould
by reciprocating piston and by reciprocating holder which
shaped portions to discharge position
ZVONKO PESTELIC 22.11.77-SW-013175
(25.06.79) A23p-01

The appts. shapes portions of food, e.g. meat, fish
potatoes, into rolls or balls. Portions fed from a fu
are driven by a reciprocating piston to a shaping pos
A holder moves between the shaping position and a di
charge position. The piston and the holder together
a mould.

When the holder reaches the discharge position,
plunger pushes the shaped portion out of the holder.
piston and holder are driven by a common mechanisn
22.11.77 as 013175 (-pp1407)

D15: WATER TREATMENT

POLA/ ★ D15 B/28 ★CS 7603-704
Water treatment or purification reactor - using flocculant mist
POLAK J 04.06.76-CS-003704
(30.03.79) C02c-01/20

NOVA/ ★ D15 B/28 ★CS 7608-005
Suspension separation in plate-type sedimentation tank
NOVAK Z 08.12.76-CS-008005
(30.03.79) C02c-01/18

RADE/ ★ D15 B/28 ★CS 7702-209
Separator for industrial, aq. effluents purification - eliminating free oils and light, mechanical impurities
RADEV S 04.04.77-CS-002209
J01 (30.03.79) C02c-01/26

HVIZ/ ★ D15 B/28 ★CS 7703-451
Even distribution of liquid fed into sedimentation tank
HVIZDAL Z 25.05.77-CS-003451
(30.03.79) C02c-01/26

ZAHR/ ★ D15 B/28 ★CS 7704-270
Semi-biological purification of aq. effluents - using computerised process control
ZAHRADKA V 29.06.77-CS-004270
(30.03.79) C02c-01/02

KACA/ ★ D15 B/28 ★CS 7708-403
Sulphur-contg. effluent purification - after industrial prepn. of mercapto-benzimidazole
KACANI S 15.12.77-CS-008403
E13 J01 (30.03.79) C02c-05/02

EFFE/ ★ D15 B/28 ★CS 7708-806
Intensive purification of aq. effluents
EFFENBERGER M 27.12.77-CS-008806
(30.03.79) C02c-01/40

MORA/ ★ D15 B/28 ★CS 7800-243
Elimination of metal hydroxides and organic cpds. from aq. effluents
MORAVEC J 12.01.78-CS-000243
(30.03.79) C02c-05/02

HOLA/ ★ D15 B/28 ★CS 780
Sampler for collecting water from bottom of conduit
HOLATA M 03.03.78-CS-001358
(30.03.79) C02c-01/22

CIZE/ ★ D15 B/28 ★CS 780
Water aerator
CIZEK P 06.03.78-CS-001382
(30.03.79) C02c-01/10

PROK/ ★ D15 B/28 ★CS 78
Additional biological purification of waste water - from do
and pig farms sources
PROKES B 11.03.78-CS-001546
(30.03.79) C02c-05/10

TREJ/ ★ D15 B/28 ★CS 780
Appts. for water mixing with ozone
TREJTNAR J 05.07.78-CS-004467
(30.03.79) C02b-01/38

FMCC D15 01168R/01 =DS 166
Controlled solubility sanitizer tablet
FMC CORP 13.03.67-US-622390
*E13 +P34 (D22) (05.07.79) *US3488-420 +A61l-13*

In a method of controlling the growth of pathogenic ba
ia in swimming pools or drinking water plant by main
ing an active Cl content of 0.4-1.5 ppm using a tablet
tg. 60-97 wt.% di-/tri-chloroisocyanuric acid and 0.
wt.% Na, Ca or Zn stearate, the rate of dissolution a
the tablet's structural integrity are improved if they
tain 2.5-37 wt.% Na tripolyphosphate in the low temp.
rm II or in the high temp. form I or Na hexametaphos
ate and if they have a density of 1.4-1.7 (1.60-1.64)
13.3.68 as 667879 (4pp922)

NEPT- ★ D15 50943B/28 ★DS 178
Precipitatable matter extraction from fluids - in ascending tu
horizontal tank with back flushing facility
NEPTUNE MICROFLOC 29.09.67-US-675742
J01 (05.07.79) B01d-21 C02c-01/18

A device for the extraction of precipitable matter fro
liq. consists of a horizontal cylindrical tank in which
rge number of closely packed ascending tubes is arra
The angle of inclination of these tubes

ectional area $\leqslant 45$ cm^2 and their length 0. 6- 3 m. fftake reservoir is equipped with a valve and an inlet backflushing fluid.

is device requires little space. A rapid deposition of recipitable substances is reached with a high efficie-nd at fast flow rates. Periodic cleaning by backflush-as been facilitated. 16.7.68 as 784190 (5pp39)

D15 57574S/36 =DS 2007-315

cal plant process control system espfor

DEGREMONT (FULH) 18.02.70-DT-007315

*R26 (05.07.79) *DT2007-315 G05d-11/03*

rol of the rate of additive dosing to a crude soln. n has a concn.-dependent electrical conductivity down point of inflection is described. The current value of onductivity is determined and the dosage altered by rence to the point of inflection so as to maintain a co-t differences.

he process is esp. used in water softening plant and ntinuous and self-adjusting. 18.2.70 as 007315 (9pp)

D15 17472S/10 =DS 2041-701

r purification apparatus for connec- - tion to a water main

STL J (AST /) 22.08.69-US-852193

*(05.07.79) *DT2041-701 C02b-01*

ater purificn. appliance, based on reverse osmosis, inside a cylindrical water reservoir a collapsible bl-r. Its inner space is used to store purified water and nked to the outlet of the osmosis cell. The space outs the bladder can be connected by a control valve to the water outlet. This exposes the purified water to the tap er pressure and is ejected from the consumer's tap.

The purified water is thus discharged by the tap water ssure and not by gravity or any other source of thrust. appliance does not require a large reservoir and has ompact design. 21.8.70 as 041701 (8pp39)

R D15 04014Y/03 =DS 2510-447

ite based soil improving agents prodn. - by granulating lignite bacterially degradable materials, esp. clarification sludge

RHEINISCHE BRAUNK 11.03.75-DT-510447

*C03 (05.07.79) *DT2510-447 C05f-11/02*

oil amelioration material is composed of a mixt. of cr-ed raw brown coal and of substances which can be dig-ed by bacterial action, such as sewage sludge. This t. is granulated by pelletising, screening to a fraction -6 mm, and dried, pref. in a fluidised bed. In addn., careous binder such as fly ash, or substrances with a rogen, phosphate or potassium content, can be used as redients.

This facilitates both the storage and transport, as well the handling and spreading of this soil amelioration ma-ial. 11.3.75 as 510447(4pp39)

OHN/ D15 04120Y/03 =DS 2529-156

ntrolled addn. of liq. to flowing water - esp. scented foam soln. domestic shower systems

MOHN H J 30.06.75-DT-529156

*(05.07.79) *DT2529-156 B01j-04/02*

device for the metered admixture of a perfume to the ter for the sprinkling nozzle of a shower bath consists a T-piece between the water mixing valve and the flexib-metal hose to the shower. An adapter which is screwed to the T-piece has at the other end a thread for the att-hment of a cylindrical cartridge containing a perfumed am soln. The other adapter end is screwed into the T-ece above a venturi restriction which creates a vacuum. wo holes at the end of the adapter lead to an annulus, with ccess to the venturi through a valve seat. The gap of the tter can be adjusted by turning the adapter.

This is a simple device with an easily exchanged cartr-idge which can be readily adjusted as desired. 30.6.75 as 29156 (9pp39)

APOT D15 83261W/51 =DS 2530-820

Recovery of pptn. agent from pptd. protein matter - using alkaline earth cpds. to bind protein, hydroxide to adjust pH, heating and sepg. aq. phase

APOTHEKERNES LAB FU A/S 24.07.74-NO-002703

*J01 (05.07.79) *BE-831-625 C02c-03 C02c-05/02*

lignosulphonates, sulphated alcohols and aromatic sulphonates from an aq., pptd. proteinaceous sludge which is thereby simultaneously thickened.

At least one alkaline earth cpd. is added to the sludge in sufficient quantities to build the proteins and, if the pH still be < 6.5, adding an alkali(ne earth) base to raise it to > 6.5. The sludge is then stirred and heated (opt. by steam) to $\geqslant 60$°C and the aq. phase, contg. the precipitant, which separates out removed and re-used to ppt. proteins.

Process is simple (i.e. conditions are not so critical as when using $CaCO_3$ alone) and the prod. has a very high solids content. 10.7.75 as 530820 (12pp922)

FARB D15 09372Y/06 =DS 2534-892

Purifying waste liquor contg. sulphide, sulphite and thiosulphate - alkaline oxidn. followed by acid oxidn. using oxygen

BAYER AG 05.08.75-DT-534892

*F09 (05.07.79) *BE-844-891 C02c-05/04*

Effluents contg. sulphides, sulphites or thiosulphates are treated by oxidn. in which process their pH is adjusted to > 7 (if they contain sulphides) and contacted with technically pure O_2 at 20-200°C at < 20 bars till all the sulphides have been converted to thiosulphates and then further oxidised at 70-150°C and at < 10 bars at pH 0-3 in the presence of a Fe catalyst till sulphates are fully produced. 5.8.75 as 534892 (5pp922)

RHWL D15 86394A/48 =DS 2723-025

Processing nuclear power station evaporator concentrates - by converting boric acid to tri:methyl borate, inactivating antimony and precipitating radioactive nuclides

RH-WESTF ELEKTRIZIT AG 21.05.77-DT-723025

*K06 (05.07.79) *DT2723-025 C02c-05 G21f-09/06*

Effluent contg. H_3BO_3, radioactive Sb and other radioactive nucleides e.g. from nuclear power plants is treated by evaporating it to almost dryness, reacting it with conc. H_2SO_4 and, when cool, with CH_3OH. The trimethyl borate formed is distilled off and the residue stored till Sb activity has ceased after which the other radioactive species are chemically pptd. and removed.

By this method, the radioactive nucleides are handled in smaller volumes (compared to the original effluent vol.). 21.5.77 as 723025 (3pp922)

DEGM D15 04212A/03 =DS 2741-574

Packaged plant for physicochemical purification of waste water - with gravity evacuation of sludge from flocculating and decanting zones

FA DEGREMONT 17.09.76-FR-027958

*(05.07.79) *BE-858-720 C02c-01*

A treatment unit for municipal sewage and industrial wastes contains three compartments for the successive treatment steps of neutralisation/coagulation, flocculation, and laminar decantation. In the second compartment, plates with guide vanes and a partition between first and second compartment follow the inclined outside wall contours. All three compartments terminate at the bottom in a joint container in the shape of an inverted pyramid.

This compact unit requires little space but can process effluents with high solids content. 15.9.77 as 741574(5pp)

KLOC ★ D15 50951B/28 ★DS 2821-896

Sewage sludge pasteurisation - in intermittently operated two/part retention tank joined by heat exchanger

KLOCKNER WERKE AG 19.05.78-DT-821896

(05.07.79) C02c-03

A plant for the pasteurisation of sewage sludge prior to its digestion, includes a retention tank with an annular outer space for the raw sludge which is linked through an external hot-water heat exchanger to an inner space to equal size. An insulation lining covers the outside shell.

This installation is operated intermittently and processes small flow rates of sewage sludge in an economic way. The retention time required for safe sterilisation at a certain temp. is maintained. 19.5.78 as 821896(4pp)

GART- ★ D15 51082B/28 ★DT 2758-960
Treatment of rinse water from aluminium chromating plant - using cation and anion exchangers
GARTNER J & CO 30.12.77-DT-758960
M13 (05.07.79) C02c-05/08

Purification and recycling of waste water from an aluminium chromating plant comprises passing the effluent from the rinsing bath through a 1st cation-exchanger bed and then through an anion-exchanger bed, and then returning it to the rinsing tank. During regeneration of the anion exchanger, the regeneration effluent is passed through a 2nd cation-exchanger bed to a collecting vessel, from which it is passed to the chromating bath.

The only effluents requiring disposal are those produced during regeneration of the 1st and 2nd cation exchangers; these contain no Cr or CN and can be subjected to conventional waste-water treatment. 30.12.77 as 758960 (15pp367)

PASE ★ D15 51093B/28 ★DT 2800-034
Sewage purification system - with alternative surface aeration by ambient air, oxygen and oxygen at excess pressure over fluid surface
PASSAVANTW MICHELBACHER 02.01.78-DT-800034
(05.07.79) C02c-01/10

A sewage purification system used an oval basin with a central portion in which $\geqslant 2$ of the following modes of operation alternate, depending on the oxygen absorption by the fluid: (a) surface aeration by ambient air; (b) oxygen aeration at atmospheric pressure above fluid level; (c) oxygen aeration at excess pressure above fluid level.

Combines an economical utilisation of the oxygen with an optimum purification efficiency and good flexibility for adaptation to fluctuating working conditions. 2.1.78 as 800034 (25pp39)

PASE ★ D15 51094B/28 ★DT 2800-035
Sewage purification system - exposing effluent to oxygen or air supply over part of its circulation path
PASSAVANTW MICHELBACHER 02.01.78-DT-800035
(05.07.79) C02c-01/10

A sewage purification system uses an oval basin with a middle partition in which the sewage circulates. The effluent is exposed at one or more sections of its path to a supply of air or of oxygen and remains for the rest of its path exposed to the free atmosphere.

This combines an economical utilisation of oxygen with an optimum purification efficiency and an adaptability to fluctuating working conditions. 2.1.78 as 800035 (31pp39)

KULL/ ★ D15 51097B/28 ★DT 2800-137
Activated sludge treatment of waste water - with surfactant addn. to improve aeration, flocculation and settling
KULLMANN H F 03.01.78-DT-800137
A97 (05.07.79) C02c-01/06

Improving aeration, flocculation and settling rate during activated sludge treatment of waste water comprises adding a surfactant in an amt. sufficient to give a predetermined decrease in the surface tension of the sludge.

The surfactant is pref. a polypropylene glycol/ethylene oxide adduct, e.g. 'Oxalgon' or 'Marlox'. It is pref. added in an amt. of 0.001-2 (esp. 0.005-0.01) wt. %. Flocculation and settling can be further improved by adding a suitable inorganic salt, e.g. Al sulphate. 3.1.78 as 800137 (9pp367)

ERAP ★ D15 51184B/28 ★FR 2405-082
Sepg. two immiscible liquids by means of coalescent material - using coalescence zone with end-plate held by spring-loaded rods, ensuring optimum compacting
ELFUNION 04.10.77-FR-029775
H05 J01 (08.06.79) B01d-17/04 C02c-05

Appts. comprises coalescence and decantation zones with a feed for the mixt. and outlets for the sepd. liquids, incorporates a coalescence zone bounded by a shell and having two plates at its ends, one of which is mobile. The mechanism which imparts mobility to the plate consists of tightening rods. Each rod has a straight part, which is threaded and fitted with a nut, and a hooked part. One of these parts can enter a box outside the coalescence zone, formed in the shell. The outer part is in contact with a square frame placed on the plate. The space betwe
the mobile plate and the adjacent zone of the appts.
sealed, pref. with a toric joint. The plates are pref.
stituted of a supporting grid on which is placed a fin
mesh metal cloth. A spring is pref. fitted between th
and a support on the frame or the bottom of the outer

Problems associated with insufficient compacting
the coalescent material are avoided. The invention a
it to be held in place in the coalescence zone avoidin
escape to the exterior, ensures compacting at the sta
and during the operation of the appts. and easy decon
sion of the material to eliminate any irreversible clogging. 4.10.77 as 029775 (11pp1192)

MADE/ ★ D15 51192B/28 ★FR 24
Desalination of sea-water by solar radiation - in assem
reservoirs arranged as flight of stairs behind glass sheet
MADERN J P 10.10.77-FR-030438
(08.06.79) C02b-01/06

Solar energy collector, for the distn. and desalinatio
sea-water, comprises an assembly of staggered plan
horizontal reservoirs arranged underneath an incline
transparent surface, such as glass. The evapn. basi
consists of an assembly of level reservoirs, each wi
nosing rising $\leqslant$5mm above the base. The other rese
are identical but are staggered in height to give the a
ance of a flight of stairs.

The transparent surface is inclined at an angle of
° with the horizontal. Crude water enters from the fe
and the solar radiation evaporates the water in the re
voirs, the vapour condenses on the underside of the t
parent surface and trickles down to the outlet to be e
ated for subsequent use. The conc. sea-water flows
the gutter with its overlow.

As the vol. of air above the free surfaces of the w
to be dimineralised is reduced to the min., evapn. a
condensn. are improved so than that of previous appt
of this type. 10.10.77 as 030438 (5pp519)

BRPE D15 07995Y/05 =GB 15
Purifying waste water from chloroprene emulsion polymeris
by flocculation and active carbon adsorption opt. combined
biological treatment
BP CHEMICALS LTD 07.07.75-GB-028473
*A12 (11.07.79) *DT2630-382 C02c-05/02*

An efluent contg. only aq. effluent from an emulsion
merisation process is treated by subjecting the efflue
to a flocculation treatment with a polyvalent metal cat
then subjecting to an activated carbon adsorption step

Effluent contains a condensn. prod. of napthalene
phoric acid and formaldehyde. Pref. the effluent is al
subjected to a biological treatment sufficient to remo
$\geqslant$70% of the BOD in the effluent fed to the biological
-ment.

Effluent contg. minor amts. of polymer latex resu
from coagulation of latex during recovery or from spi
or leakages during polymerisation is satisfactorily tr
by combined process. 22.6.76 (5pp931)

BRTO ★ D15 51260B/28 ★GB 201
Treatment of aq. waste materials - by nitrification, denitrific
nitrogen desorption, and oxygenation
BOC LTD 21.11.78-GB-045441 (12.09.77-GB-037976)
(11.07.79) C02c-01/17

Aq. waste material is treated by the following cyclica
sequential process: (a) N-contg. cpds. in the waste ar
oxidised to nitrates by nitrifying micro-organisms; (b
nitrates in the aq. waste are then reduced to N_2 by an
ically denitrifying microorganisms; (c) N_2 is desorbed
extrd. from the aq.; and (d) the aq. material from wh
N_2 has been extrd. is oxygenated, then a portion is recycled to the oxidising region.

Step (a) nitrification is typically effected by the acti
vated sludge method, and is e.g. performed in a vess
which the sludge is allowed to settle towards the botto
and an upper layer of relatively clear H_2O flows away
Nitrified liq. is withdrawn and mixed with fresh aq. w
material. Step (b) denitrifiation is pref. in a closed ve
in which the aq. waste is passed through spaced, verti
sheets of mesh or guaze. In step (c) N_2 (and some CO_2

removed typically by a vacuum pump. Step (d) oxy-
on is pref. with a gas contg. $\nless$ 80% by O_2, esp. with
ercial pure O_2. The gas is added to a down flowing
of the aq. material with turbulence, and the velo-
the aq. stream is reduced sufficiently so that the
bubbles rise against the direction of flow and pass
the turbulent region.
thod is suitable for the treatment of sewage. 21.11.
045441(5pp478)

★ D15 51262B/28 ★GB 2011-372
oichiometric carbon-sulphur cpds. - for removal of organic
organic cpds. from liquids, esp. polar liquids
ON RES & ENG CO 03.01.78-US-866267
J01 (11.07.79) C02c-05/02

lved (in)organic materials are removed from a liq.
eatment with a non-stoichiometric C x S cpd., where
-50. CxS has surface area $\nless$ 300 m^2/g.
e inexpensive, and reaily prepd. and regenerated
dsorbent effectively removes a variety of (in)organic
rials from liqs., The method is partic. suitable for
val of aromatics gives low CxS losses, and allows
r recovery of the adsorbate than conventional acti-
C. 29.12.78 as 050315(20pp478)

★ D15 51264B/28 ★GB 2011-374
val of soluble cyanide complexes from waste waters - by
ication, then chlorination at high temps.
BA GEIGY AG 03.01.78-US-866439
6 (11.07.79) C02c-05/02

od for removing soluble cyanide complexes (I) from
streams is as follows: (a) HCl is added to the stream
$H \leqslant 3$; (b) mixt. is heated to $\leqslant 80°$ and treated with a
ce of Cl_2.
step (a), suitable effluents include HCN tank car and
age tank washings, and insol. Fe cyanide complexes
pref. filtered off. Amt. of pref. 5-15% HCl used is ca
vol. /vol. of aq. washings (to give final acid strength:
a 5..5%). In step (b), chlorination is withCl_2 or NaOCl,
$\bar{O}Cl)_2$ etc. (pref. $\nless$ 100% excess) for 1-15 min. Excess
is then destroyed with $NaHSO_3$, Na_2SO_3, $FeSO_4$, etc.
cess is pref. in a countercurrent column, with Cl_2
live steam passed to the column bottom. Opt. the
uent from step (b) (contg. CNCl and NH_4Cl) may be
orinated at pH $\nless$ 9.5, then chlorinated at pH 6-9 pref.
.
Process efficiently, rapidly, and completely removes
l cyanide complexes from a variety of industrial waste
er streams (to $<$ 1 ppm) (e.g. from mfr. of triazine
bicides, etc.,). 3.1.79 as 000142(5pp478)

A ★ D15 51453B/28 ★J5 4067-571
ary blade evaporator - used to treat waste liq., esp. to
centrate radioactive waste from nuclear power plant
HITACHI KK 09.11.77-JA-133487
J01 K07 (31.05.79) B01d-01/22

e evaporator comprises a container, a rotary shaft
in the container, and rotary blades radially and rota-
ly attached through a support ring and support shafts
the rotary shaft. A balance weight or a spring is atta-
ed to each the rotary blade to maintain always a con-
nt pushing force against the wall surface of the con-
ner.
A waste liquid is supplied into the container and pushed
the wall with centrifugal force of rotary blades, so
at it is heated and conc. with a heating medium in a
cket to separate the solids.
The life of rotary blades may be increased, so that the
iving efficiency of this evaporator may be improved.
11.77. as 133487 (6pp35)

DO- ★ D15 51491B/28 ★J5 4068-047
ricn. of polluted water and accumulated sludge - includes sinking
reating box with open bottom and admitting oxidising gas or liq.
FUDO KENSETSU KK (FUDO-) 08.11.77-JA-135418
(31.05.79) C02b-01 C02c-01/12

polluted water having high BOD content and low dissol-
ed oxygen content and a sluge accumulated at the bottom
f water (maintained under anaerobic state) are simul-
dredging treatment
by sinking a treating box having opening only at the underpart in a water region to be purified in such fashion that the underpart is inserted in the bottom of the water, admitting air, oxygen, ozone, H_2O_2 or water contg. it into the box, opt. under elevated pressure, so as to be agitated, introducing a gas-contg. oxidised water into a sepg. vessel wherein it is separated into gas component and water component, recirculating the water component thus separated to the treating box or to another part, whilst passing the gas component through a deodorisation appts., followed by subsequent treatment(s).

In a modification, the box is maintained for long period under anaerobic state in closed state to generate gas which is taken-off through an exhaust pipe, prior to the oxidising treatment. 8.11.77. as 135418 (6pp34)

SAOF ★ D15 51492B/28 ★J5 4068-050
Purificn. of small amts. of domestic waste water - by adding coagulant, filtering, etc. in vessels where specified pressure is automatically maintained
SANKI ENGINEERING KK 10.11.77-JA-134102
(31.05.79) B01d-23 C02c-05

In regeneration of small scale waste water, e.g. car-washing waste water and domestic waste water, e.g. discharged from a building etc., e.g. contg. soils and sands, carbon and oils and fats, etc. by adding coagulant, coagulating and sedimenting to give treated water which is then subjected to preliminary adsorption treatment by use of filtering material, filtering the water by means of a uniform upper stream-type filtration vessel having the coarse inner surface while suppressing generation of whilr stream by deaeration, the improvement comprises carrying-out all of the procedures under pressures of $<$ 0.35 kg/cm^2 by automated control, stopping automatically the supply of the waste water to be treated when the pressure reaches 0.35 kg/cm^2 to carry-out back-washing of sand filter bed in the filtration procedure.

The filtration vessel is backwashed when increase in pressure is detected without using turbiditymeasuring appts. 10.11.77. as 134102 (7pp34)

NIKA- ★ D15 51493B/28 ★J5 4068-052
Treating potassium iodide-contg. waste liquor - obtd. from analysis of oxidant in the atmos., by adding hydrogen peroxide and mineral acid to reduce iodine concn.
NIPPON KANKO SHIKIS 08.11.77-JA-133446
J04 (31.05.79) C02c-05/04

The waste liquor is made harmless (even when of high concentration). by adding an equivalent amt. of H_2O_2 and a slight excess of a mineral acid, e.g. HCl, so as to decrease the iodine concentration to $< 5 \times 10^{-3}$ mol/l.

The equivalent of H_2O_2 is accurately calculated by neutralisation titration with mineral acid and therefore adjustment of the amt. to be added is very easy; generation of iodine vapour is suppressed due to the fact that the reaction proceeds under very mild conditions so as to generate little heat; the supernatant liquor is harmless and directly discharged after neutralisation; iodine is isolated by pptn. in very high purity. 8.11.77. as 133446 (3pp34)

EBAI ★ D15 51494B/28 ★J5 4068-053
Digestion of sewage etc. - with addn. of magnesium cpd. to provide formation of ammonium magnesium phosphate
EBARA INFILCO KK 11.11.77-JA-134639
C04 (31.05.79) C02c-01/17 C05f-07

In anaerobic digestion of conc. organic suspended liquor, e.g. night soil and sewage etc., the improvement comprises adding a Mg cpd. capable of dissociating to provide Mg ions aq. soln., e.g. $Mg(OH)_2$, MgO, Mg salts and sea water etc. if necessary together with a P-cpd. capable of dissociating PO_4^{3-}, e.g. phosphoric acid and phosphates etc., followed by thoroughly mixing together and staying in digesting vessel and sepg. into digested sludge and digested liquor, so that phosphoric acid or phosphoric acid and ammonia is effectively removed from the digested liquor due to the formation of NH_4MgPO_4 crystalline ppte exhibiting excellent dewaterability.

The digested sludge has largely improveddewaterability and it is not necessary to provide separately NH_4MgPO_4-

settling and a solid-liquid sepg. vessels etc. The NH_4Mg PO_4-contg. digested sludge is suitable for use as fertiliser. 11.11.77. as 134639 (3pp34)

HITG ★ D15 51594B/28 ★J5 4068-774
Cross-tube type multistage flash water evaporator - where pipe joints may be contained in evaporator preventing leakage to atmos.
BABCOCK-HITACHI KK 11.11.77-JA-134679
(02.06.79) B01d-03/06

An evaporator is composed of multistage flash chambers in which the pressures are gradually reduced in order. A heating pipe group is set in each stage flash chamber, and a cold sea water is flown through a channel defined between a side plate and a bottom of a water chamber, and another side plate and a ceiling of the evaporator. The sea water is gradually preheated through the heating pipe groups and heated to the command temp. in a preheater. The heated sea water is introduced into each flash chamber in order and flash-evaporated in each flash chamber to produce fresh water.

Pipejoints may be set in the evaporator to prevent the atmospheric leakage from joints, and each flash stage may be easily and completely assembled in the plant. The water chamber may be set in the evaporator to provide a simple arrangement in the producer. 11.11.77. as 134679 (3pp35)

HITA ★ D15 51603B/28 ★J5 4068-786
Titanium oxide adsorbent for treating hot water - comprising rutile-type titanium oxide supported on gamma- or eta-alumina
HITACHI KK 14.11.77-JA-135664
E32 J01 K05 (02.06.79) B01j-01/04 G21f-09/12

Titanium oxide adsorbant for hot water comprises rutile-type titanium oxide (I) supported on γ- or η -alumina (II) at the ratio of (I):(II) of 8.5-20 wt.%. Prepn. comprises impregnating (II) with titanium alkoxide (pref. titanium isopropoxide) and then hydrolysing the titanium alkoxide to give titanium oxide hydrate supported on the alumina, followed by calcining at 740-1050°C.

This adsorbant is useful for adsorbing various transition metals (such as Co, Ni, Cu, Zn, etc.) contained in the hot water (such as the filtrate water obtd. from the boiling water type nuclear reactor, having temp. $\geq 280°C$) efficiently. 14.11.77. as 135664 (5pp)

NAKA- ★ D15 51607B/28 ★J5 4068-790
Treating sulphur and condensed waste water from coke furnace gas - by mixing burning with petroleum waste sulphuric acid and using waste gas for sulphuric acid mfr.
NAKAYAMA SEIKOSHO 12.11.77-JA-136068
E36 H09 J01 (02.06.79) C01b-17/74

Process for treating S and a condensed waste water obtd. from a gas from a coke furnace by wet-type desulphurisation with NH_3 is claimed. The S and an adequately condensed waste water (obtd. by desulphurising and decyanising the H_2S and HCN contained in the gas from the coke furnace, by wet-type desulphurisation process with NH_3) are mixed to form a S slurry which is burned with petroleum waste H_2SO_4 in a roasting furnace, to produce a waste gas comprising mainly SO_2. The waste gas is introduced into a nitric acid-type sulphuric acid prodn. appts.

The burning of the S and condensed waste water results in no residue. 12.11.77. as 136068 (4pp55)

TOHS ★ D15 51768B/28 ★J5 4069-248
Treating human waste to reduce BOD, COD turbidity and colour - by adding iron chloride and acid, aerating and adding cationic or anionic polymer coagulant
TOHO RAYON LTD 14.11.77-JA-135727
A91 (04.06.79) C02c-01/40 C02c-05/02

Sec. treated human effluent is treated to improve its water quality without addn. of diluting water, by adding $FeCl_3$ and acid, e.g. H_2SO_4, opt. with oxidising agent, e.g. NaClO, $NaClO_2$, peroxide as H_2O_2, etc., to adjust its pH to 3-6.5, pref. 4-6; aerating to give thorough blending together; and adding cationic or anionic organic polymer coagulant, e.g. polyacrylamide-type anionic coagulant, etc., to separate sludge by coagulation, sedimentation or flotation.

The amt. of $FeCl_3$ added is 150-400 , pref. 200
ppm and the amt. of coagulant added is 0.5-10 ppm
redn. in BODis80-95%,in COD is 60-80%,in turbidi
is>95% and in colour is 80%. 14.11.77. as 135727 (

SEKI ★ D15 51769B/28 ★J5
Treatment of starch-contg. waste water - using an alginate
CMC salt with an alum
SEKISUI CHEMI IND KK 14.11.77-JA-137085
A97 (D17) (04.06.79) B01d-21/ C02c-05/02*

A waste water contg. a large amt. of starch-like fl
matters, e.g. discharged from a mill, starch-prod
brewery and food-processing plant etc. is effectivel
rified by coagulation sedimentation by adding algina
e.g. Na alginate etc. and/or CMC salt, e.g. Na sal
CMC etc., together with alum, so that the starch-lil
floating matters are rapidly and effectively coagulat
together and pptd.

The amt. of the alginate and/or CMC salt used i
0.25-1.96 wt.% wrt. total amt. of the floating starc
the waste water, and the amt. of alum is pref. 10-2
amt. of CMC salt of the alginate. If necessary, a sı
amt. of $Ca(OH)_2$ or $CaCl_2$ may be used as coagulatio
assistant. Treatment is pref. effected at pH 7-8. Tl
alum is suitably potassium alum or ammonium alum
and a starch-bearing coagulated ppte obtd. in this c
is suitable for use as harmless feed or fertiliser.
14.11.77. as 137085 (5pp)

TORA ★ D15 51770B/28 ★J5 4
treatment of poly alkylene glycol-contg. effluent - using a
sludge, controlling effluent supply according to mol. wt. of c
TORAY INDS INC 15.11.77-JA-136917
A35 E17 (A25) (04.06.79) C02c-01/06

In purification of effluents containing polyalkylenegl
cpd. having mean mol.wt. of 200-2,000 e.g. polyet
leneglycol, poly(trimethyleneoxide), poly(tetrameth
oxide), their copolymers , their end-substd. derivs
by activated sludge treatment, improvement compri
controlling the supply of the effluent $<$ 200g.-PAG/
-MLVSS. day calculated in terms of the polyalkylene
col cpd. (i.e. adjusting the supply of the effluent su
that $<$200 grams day of the polyalkyleneglycol cpd.
supplied to a treating vessel into which 1 kg. of effe
activated sludge is charged) so that the effluents are
effectively and economically treated.

The biological degradation rate of the polyalkylen
glycol cpds. differs for different mol.wt. of the poly
alkyleneglycol cpds., i.e. the lower the mol.wt. the
more easy the biological degradation, and the higher
M.W., the more difficult. Therefore, the supply of
effluents must be varied within the above range in a
rdance with the mol.wt. of the polyalkyleneglycol cp
to be treated. 15.11.77. as 136917 (5pp34)

HITK ★ D15 51819B/28 ★J5 40
Treating incinerated sludge ash contg. hexavalent chromiu
redn. in carbon mon:oxide to convert to trivalent chromium
HITACHI METAL KK 16.11.77-JA-136637
E31 J09 M11 (04.06.79) B01j-01

Incinerated sludge ash contg. Cr(VI) is subjected to
at >500°C in a atmos. contg. CO to convert the Cr(
to harmless Cr (III). The sludge is sepd. from sewa
industrial effluents, etc.

The method is capable of converting the harmful
(VI) into the harmless Cr(III) cpds. with high efficie
In an example 10g of the incinerated ash contg. 50
ppm of Cr of plating easte water sludge was subjecte
a reducing treatment at high temp. in an atmosphere
CO and 10% N_2. Elution test on Cr(VI) from incinera
ash was made. No elution of (Cr VI) from the inciner
sludge ash obtained in incineration at >600°C was ob
ved. 16.11.77. as 136637 (2pp117)

HITK ★ D15 51820B/28 ★J5 40
Sludge treatment of sewage, industrial effluents etc. - com
converting hexavalent chromium into trivalent chromiu
incinerating the sludge, and heating the ash with activated ca
HITACHI METAL KK 16.11.77-JA-136638
E31 J09 M11 (04.06.79) B01j-01

e treatment for converting harmful VI Cr into
ss III Cr comprises first incinerating the sludge
n mixing the sludge ash, immediately after incin-
, with >10 wt.% activated carbon or fine coal pow-
the basis of the wt. of incinerated ash, and hea-
00°C.
mful VI Cr present in incinerated sludge ash is
ted into harmless Cr (III) with high efficiency.
s from sewage, industry and other waste waters
treated. 16.11.77. as 136638 (2pp117)

★ D15 51821B/28 ★J5 4069-573
ial waste sludge treatment and utilisation - comprising
olefinic copolymer aq. soln. to agglomerate fine particles,
grinding and using e.g. as fertiliser or soil
VAMURA S 14.11.77-JA-136924
C04 (04.06.79) B01j-01 C02c-03
ethod of drying sludges, e.g. wastes from various
tries, slag, smelting dross, etc., and also of utili-
he dried sludges, a suitable amt. of an aq. soln.
olefinic copolymer contg. polar groups is added to
ixed with sludge discharged from mfg. processes
rocessing lines. Water-soluble olefinic resin is con-
d into insoluble resin is converted into insoluble
and at the same time covers the surfaces of fine
cles in the sludge to bring about agglomeration of
articles which confers good water resistance and
permeability upon the fine particles, and then the
d sludge is dried.
he dried sludge is ground and then classified into
size fractions, and the dried sludge powder and
ules are utilised as an artificial soil or a slow- or
acting fertiliser, or are used for the recovery of
able substances present in sludge particles. Method
vs rapid and easy drying of moist sludge and effec-
utilisation of the dried sludge. 14.11.77. as 136924
117)

★ D15 51825B/28 ★J5 4069-578
brane sepn. treatment of food and fermentation waste - using
minary filtration with copper metal fibre or powder to prevent
organism growth contaminating membrane
ITTO ELECTRIC IND KK 15.11.77-JA-137491
01 (04.06.79) B01d-13 C02b-01/82
atment of waste waters from foods mfr., fermentation
licine treatment, etc., contg. protein, amino acids,
charides, etc., is claimed, using a membrane separa-
method. Waste water is first filtered through a filter
dium of Cu metal having a great number of lattice de-
ts, e.g. Cu fibre, (un)woven fabric, Cu wire netting,
web laminate, electrolytic Cu foil laminate, electroly-
Cu powder, etc. The filtrate is then subjected to a
mbrane sepn. using reverse osmosis appts., ultrafiltr-
on appts, micro-filtration appts., or a combination of
se.
Method is capable of preventing the growth of micro-
ganisms because microorganism present in liquor to be
ated are killed by passage through the copper filter
dium, thus preventing the lowering of the filtering capa-
ity of semipermeable membrane due to the adhesion
d attack of microorganisms. 15.11.77. as 137491 (4pp
7)

L ★ D15 51826B/28 ★J5 4069-579
n. of ions and low molecular cpds. from soln. - using multistage
mipermeable membrane system at constant pH
NITTO ELECTRIC IND KK 15.11.77-JA-137490
J01 (04.06.79) B01d-13 C02b-01/82
filtrate or conc. liquor sepd. from a soln. separation
paratus is further sent to a multistage soln. sepn. appts.
ln. is charged from a solution charging port and the
nc. soln. is again recycled to the soln. charging port.
he pH of the soln. is regulated of predetermined inter-
als at each sepn. stage or before and after each separa-
on stage by using an acid or alkali.
This method is capable of keeping the pH of solution
tc. present in solution, const. during sepn. Therefore
owering of the strength of membrane used due to the
hange in the pH of soln. can be avoided. 15.11.77. as

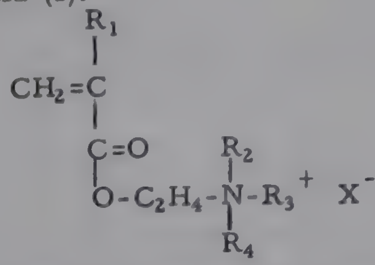
KYOY ★ D15 51828B/28 ★J5 4069-582

Preventing functional deterioration of cationic high mol. coagulants - used in water treatment etc., by adding acid to keep the pH below 5.5

KYORITSU YUKIKOGYO 15.11.77-JA-136809

A91 (A14) (04.06.79) B01d-21/ C02b-01/20 C02c-05/02*

Functional deterioration of cationic high molecular coagulant, partic. of acrylic cationic high molecular coagulants due to hydrolysis, is prevented by regulating the pH of an aq. soln. of the copolymer of a cationic monomer of formula (I).



$$CH_2=C(R_1)-C(=O)-O-C_2H_4-N^+(R_2)(R_3)(R_4)\ X^- \qquad (I)$$

and acrylamide, in which the proportion of the cationic monomer is <50 mole %, to <5.5 by the addition of an acid, pref. a solid acid, e.g., sulphamic acid, sodium pyrosulphate, citric acid, etc.

The regulation of the pH greatly prevents the functional deterioration of these coagulants, partic. the copolymers of acrylates and acrylamide, etc., which are employed in the treatment of water, etc. 15.11.77. as 136809 (3pp117)

MITU D15 35183U/25 =J7 9015-920

Chelate-forming amino acid addition polymers - for removing heavy metal impurities from aq media

MITSUBISHI CHEM IND KK (MITS) 22.02.72-JA-018248

*A26 (A91) (18.06.79) *DT2258-535 +B01j-01/08 C08g-73/02*

Cpds. contg. 2 acryloyl gps. are adducted with amino acids contg. 2 reactive H atoms. active for the Michael reactions and cpds. (as the cross-linking agent) contg. > 3 of the reactive H atoms to give the title resins.

In an example 3.08 g methylenebisacrylamide was reacted for 3 hr. at 80° with an aq. soln. contg. 0.75 g glycine and 0.4 g NaOH in 8.3 g H_2O mixed dropwise with 0.58 g. hexamethylene diamine dissolved in 4g. H_2O, and stirred for a further hr. with 30 g. H_2O to give 4.3 g white powders. 22.2.72 as 018248 C08g-73/02, B01j-1/08 (18.6.79) MITSUBISHI CHEM IND (4pp)(J48096699)

INOZ D15 52330T/33 =J7 9016-134

Purifying effluents or contaminated waters - by formation of metal hydroxide coagulants

INOUE JAPAX RES INC 24.02.71-JA-009544

*(20.06.79) *DT2201-070 C02b-01/82 C02c-05/12 +C02c-03 C25b-09*

The aq. medium to be purified in contacted with a metal body, which is electrochemically soluble in water, with application of an electric potential if necessary thus yielding metal hydroxides which act as coagulants. Fine solid suspensions or celloidal dispersions which cannot be removed mechanically or by the ion exchange method can be economically removed by this method. 24.2.71 as 009544 C02b-1/082, C02c-5/12, 3/00C25b-9/00 (20.6.79) INOUE-JAPAX RESEARCH INC (8pp)(J47021379)

SNLE D15 79102U/51 #J7 9016-135

Ind waste water treatment - using electrolytic cell esp for extraction of cyanides

STANLEY DENKI KK (INOZ) 30.06.72-JA-U76565 (09.06.72-JA-057389)

*(20.06.79) *BE-799-901 C02b-01/82 C02c-05/12 C25b-09*

Between the principal parallel plate electrodes forming two side walls of the cell are a number of rows of parallel bar auxiliary electrodes which increase the effective area of the electrochemical active surface so that the voltage applied can be reduced giving higher efficiency due to reduction of gases.

The bars are esp. alternated C for the extraction of the cyanide, and a metal alloy which dissolves electrically the hydroxide of its own metals, for the extraction of heavy metal ions. They are supported in an open box structure. 9.6.72 as 057389 C02c-5/12;C02b-1/82; C25b-9/00

(20.6.79) STANLEY DENKI KK; INOUE JAPAX KENXY USHO (4pp)(J49017050)

UNIC D15 51169W/31 =J7 9016-138
Activated sludge treatment to eliminate phosphates - by mixing with sludge and aerating
UNION CARBIDE CORP 04.09.73-US-394340
*(20.06.79) *DT2442-031 C02c-01/06*

An activated sludge treatment eliminates phosphates from sewage by mixing with sludge and serrating until the microorganisms have absorbed phosphates. The phosphates are released in a settling zone contg. an anaerobic sludge layer. When the soluble phosphates have migrated into the upper part of sludge to form a liquid layer, this layer with its phosphate content is removed and the low-phosphate sludge is recycled.

The phosphates are released and the high-phosphate aq. phase is sepd. from a low - phosphate sludge directly in the settling zone. This saves the time and the appts. for the separate treatment of a high-phosphate sludge. 4.9.74 as 100976 (clg. 4.9.73 - US - 394340) C02c-1/06 (20.6.79) UNION CARBIDE CORP (3pp)(J50072453)

URAL= ★ D15 52027B/28 ★SU -624-066
Electric power-station condensate deaerator and supply unit - has tank and column with pipes at certain levels for taking away the deaerated water for economy
URALS BR THERM TECH 24.01.77-SU-445443
Q72 (26.07.78) C02b-01/10 F22d-11/02

The deaeration and supply installation, operating with sliding steam pressure, comprising a deaerator with tank and deaeration column, feeder pump, feed water cooler, and pipelines connecting the pump with the tank and cooler, and the cooler to the de-aerator.

Operational reliability and economy are increased, by sub-connecting the pipelines linking the cooler with the deaerator to the tank and deaeration column at the points of permissible liquid levels. Superheated steam is fed directly from the uncontrolled outlet from the turbines into the de-aeration column, the pressure changing with the alteration in load. The level of the water in the de-aerator tank alters correspondingly. With the abrupt reduction in load the steam pressure drop is particularly intense, since the temp. of the water collecting in the tank is so much lower. Kondratev, A.D., Oprishchenko, B.G., Kurnyk, L.N. et al. Bul. 34/15.9.78. 24.1.77 as 445443 (3pp29)

UAGR= ★ D15 52088B/28 ★SU -624-585
Animal farm manure dewaterer - has reciprocating mesh screen vibrating inside container to which manure is fed and through which liquid filters, used in fertiliser mfr.
UKR AGRIC MECH ELEC (ZAPO=) 04.03.77-SU-459515
P11 (08.08.78) A01c-03 B01d-25/04

The power consumption of the dewatering process is reduced by installing the screen so that it moves backwards and forwards in the horizontal plane, using a torsional vibration mechanism, e.g. a crankshaft drive.

As the screen oscillates, the liquid manure is piped to the space enclosed between the body and the screen. As result of the reciprocating motion of the screen, in the liquid mass close to the screen's surface, a pulsating centrifugal force is generated, varying from zero to maximum value.
Shkodkin, I.I., Yaroshchuk, V.A., Linnik, N.K. et al. Bul. 35/25.9.78. 4.3.77 as 459515 (2pp29)

UEDA ★ D15 52366B/28 ★SW 7709-924
Treatment of discoloured waste water contg. chlorine - derived from chlorine-based bleaching process
UDDEHOLMS AB 05.09.77-SW-009924
F09 (02.04.79) D21c-11

CLEV- ★ D15 B/28 ★SW 7811-985
Aeration and mixing system for waste water - mixes parallel streams of gas and water in submerged mixing chambers from which deposits are rinsed by reversal of flow
CLEVEPAK CORP 22.11.77-JA-140554
(25.06.79) B01f-03/04 B01f-05/10 C02c-01/08

The waste water is circulated through a network of passages in submerged mixing chambers, in which parallel streams of gas and water are mixed together. To rinse waste out of the mixing chambers, pipes and pump, each
inlet is coupled to a higher point at lower pressure,
the water circulation is stopped, while gas continues
forced ino the passages.

This creates a reverse flow of waste water throu
mixing chamber, so that deposited solids are carrie
of the system. Intermittent gas flow causes pulses
facilitate loosening of the solids. 21.11.78 as 01198
(-pp1407)

SUND/ ★ D15 52417B/28 ★US 41
Distillation system direct contact condenser - with dual tempe
zone condensate sump and cooled condensate recirculat
coolant
SUNDQUIST C.T 22.03.76-US-669393
(26.06.79) B01d-03/42 C02b-01/04

Condenser with improved thermal efficiency compris
vertical vessel with top vapour inlet and a condensate
holding hotter liq. in the upper and cooler in the lowe
and with a liq. level controller and a thermostat sens
temp. between the sump liq. levels.

The controller and thermostat together control up
and lower drain valves to maintain the thermostat ter
branch line feeding coolant to the sump lower part is
rolled by a second thermostat in the sump upper part
cnndensate from the sump top is pumped through a co
to exit as condenser coolant sprayed into the vessel
22.3.76 as 669393 (3pp1358)

AVAN- ★ D15 52418B/28 ★US 41
Solar distillation appts. with airtight enclosure - has evapo
and condensation chambers with intermediate,
condensation chambers with thermally insulative partition
AVANT LTD 11.10.77-US-840823
Q74 (26.06.79) B01d-03 C02b-01/04 F24j-03/02

Appts. for the distn. of contaminated water comprise
airtight enclosure having an evapn. chamber, a conde
chamber and an intermediate insulative partition. Th
condensn. chamber is shaded from direct solar radia
and the evapn. chamber has a lower reservoir for c
the contaminated water and an inclined upper surface
h is transparent to solar radiation.

The partition includes upper and lower ports which
nect the chambers together. A thermally conductive
uit passes through the condensn. chamber with both e
vented to atmos. A collecting reservoir is provided
condensation chamber.

There is increased circulation of air between the c
bers which improves efficiency of operation. 11.10.7
840823(4pp1044)

GOTZ- D15 38690A/22 =US 415
Electrolysis of metal-contg. waste water - forced to flow thr
electrically conductive particles, as cathode, enclosed in perfo
cage
GOTZELMANN KG 22.11.76-DT-652934
*M11 (26.06.79) *DT2652-934 C02c-05/12*

Appts. for treating metal contg. waste water compris
vessel contg. the waste water in which there is >1 an
and a cathode of electrically conductive particles; a
in the form of a double-walled tubular container dispo
in the vessel, the cage having perforated walls and be
movable by an external force; electrically conductive
ticles disposed in the cage; a pump connected to the v
el, and a pipe extending into the container connected t
pump, the pump having perforations in the region of th
cage.

Appts. allows continuous treatment and nearly com
removal of metal is achieved. 2.6.78 as 911812 Div. e
4123340 (+22.11.77-US-854004)(9pp982)

ENVI ★ D15 52428B/28 ★US 415
Controlling denitrification in orbital sewage treatment system
measuring dissolved oxygen concn. at various points and adju
aeration rate accordingly
ENVIROTECH CORP 09.08.77-US-823068
(26.06.79) C02c-01/06

Sewage is treated in the channel of an orbital system
a controllable aerator to promote decompsn. of oxyge
demanding impurities and to form a zone of nitrificati
and a downstream zone of denitrification. A partial s
m of sewage is removed within the denitrification zone

solved oxygen profile is measured with two probes
in the nitrification zone.
ntroller utilises signals from the probes to determ-
shape of the dissolved oxygen profile between the
and the location of a point upstream of which the
is aerobic and downstream of which the sewage is
The distance between the point and the aerator is
ed with a predetermined max. distance and the aer-
controlled accordinly.
process is effective over a wide range of sewage
teristics. The controller insures that the aerators
ce sufficient oxygen into the sewage so that adequate
psn. and nitrification takes place. 9.8.77 as 823068
44)

D15 56759V/32 =US 4159-244
dsorption efficiency activated carbon fluidized bed - with
stribution across wide particle size range, to produce graded
th limited circulation
EHA KAGAKU KOGYO (TOYM) 14.03.73-JA-029868
*(26.06.79) *BE-812-332 C02c-05/02 +C02b-01/14*
cible pollutant present in a waste water is removed
eatment which comprises passing the water at a sui-
rate upwardly through a bed contg. activated carbon
ticle dia. 0.20-1.5 mm and of width (difference betw-
rgest and smallest) ⩾ 0.30 mm. The linear velocity
waste water passing through the bed is controlled to
ce an expansion ratio of fluidised bed hiehgt of the
lar activated carbon of 1.2-3.0 times bed height und-
settled state.
d contains ⩾ 1 layer of sand, pebbles or porous conc-
o form an uniformly upward or plug flow upwardly
gh the vertically extending adsorption section of the
Particle density of activated carbon is 0.8-0.9 g/ml.
ethod avoids the drawbacks such as increased pressu-
ss when particles of smaller size are used, clogging
fixed bed, biased flow of waste water and the back
ng of granules of activated carbon. 8.9.77 as 831391
. 74;26.11.75;7.3.77-US-448490;635042;775285) (5pp)

/ D15 20335Y/12 =US 4159-246
r defluorination by aluminium fluoride formation and pptn. -
dding aluminium sulphate or aluminium chloride and sodium
inate
EGUCHI K 06.12.75-JA-146151 (10.09.75-JA-110174)
*33 (26.06.79) *DT2637-048 C02b-01/20 +B01d-21/**
orine ions are removed from water by adding aluminiu-
ulphate or aluminium chloride to the water in an amt.
ctive to produce pptn. of fluorine ions as aluminium
ride hydrates, simultaneously with sodium aluminate
ratio effective to establish and maintain the pH of soln.
.6-6.9.
The mixt. is continuously stirred, the aluminium and
orine ions being reacted with each other to produce in-
uble aluminium fluoride hydrates, which are then rem-
d. Fluorine ions can be removed by installing an alu-
nium anode against a copper or iron cathode in treating
ter, then passing a d.c. current through it to ionise al-
inium ions from the anode, then adding precipitating
ents.
Fluorine is eliminated from water to the extent that
ter is fit for drinking. 16.12.77 as 861511 (+17.9.75-
-113058)(4pp931)

R- ★ D15 52430B/28 ★US 4159-248
bile system for cleaning and processing catch basin - which
trols degree of waste product dilution prior to transport to mobile
watering truck
LRS RESEARCH LTD 13.03.78-US-885683 (26.07.76-US-709566)
(26.06.79) B01d-21
cleaning system for dewatering a continuous wash stre-
n contg. variable quantities of solid wastes comprises a
waterer having an inlet for receiving the wash stream
d an outlet for continuously separating the stream into
q. and thickened portions. The solids content and flow
the wash stream and liq. portion is measured by a sol-
s sensor. A wash control device is responsive to the
lids sensor for continuously controlling the dewaterer
selectively affect the characteristics of the liq. and th-

Mobile system for cleaning and processing catch basin and/or lagoon waste prods. The degree of waste prod. dilution is carefully controlled prior to transmission to a mobile dewatering truck. The dewaterer produces a dry land fill end prod. and water suitable for recirculation or discharge to a process head of sanitary sewer.

Water addition is minimised and the density of the cleaning pump discharge is maximised. 13.3.78 as 885683 C.i.p. 4040960(+5.7.77-US-812483)(13pp1044)

GOLD/ ★ D15 B/28 ★ZA 7706-342
Combined processing of solid and liq. waste - includes prodn. and dewatering of low solids content sludge
GOLDBERGER-CROSS H 25.10.77-ZA-006342
(25.04.79) C02c-01

Process comprises (a) producing from the liq. waste material a sludge of low solid contents; (b) dewatering the sludge by evaporation to a water content of 40-60 wt. % (c) crushing the solid waste material; (d) extracting non-compostable material from the crushed solid waste material; (e) feeding the crushed solid waste material, after extn. of the non-compostable material, and the dewatered sludge to a fermentation chamber for fermentation; and (f) fine grinding the mixed solid and liq. waste material after fermentation. 25.10.77 as 006342 (9pp)

GOLD/ ★ D15 B/28 ★ZA 7706-443
Rotary screening structure - comprising polygonal cross/section screening drum, bars for lifting material and system for rotating drum
GOLDBERGER-GROSS H 28.10.77-ZA-006443
J01 P43 (30.04.79) B07b

A rotary screening structure comprises a screening drum of polygonal cross-section, bars for lifting material within the drum, the bars protruding inwardly at each of the internal apices defined by the polygonal drum, means mounting the drum for rotation, and means for rotating the drum. 28.10.77 as 006443 (9pp)

THOM/ ★ D15 52519B/28 ★ZA 7801-378
Water treatment and filtering appts. - include ionic steriliser to prevent bacterial growth
THOMAS N F 09.03.78-ZA-001378
J01 (15.03.79) B01d-25

RICE/ ★ D15 B/28 ★ZA 7802-234
Water treatment process - by adding an iodide and multivalent metal salt(s)
RICE D M 19.04.78-ZA-002234
(19.04.79) C02b

The method includes adding an iodide to the water together with ⩾1 salt of multi-valent metal which are capable of reacting with the iodide to liberate iodine, so that they are reduced to the salt corresponding to the lower level of oxidn.

The latter salt is capable of being oxidised by dissolved oxygen in the water back to the salt corresponding to the higher level of oxidn. 19.4.78 as 002234 (10pp)

PATE- ★ D15 B/28 ★ZA 7803-495
Water clarifier - with decanting means to remove clarified water, and a weir arrangement to remove excess floc to form sludge
PATERSON CANDY INT 13.09.77-GB-038064
(21.05.79) C02b C02c

A clarifier comprises a tank having an inlet for raw water, decanting means arranged to decant off clarified water above a suspended floc blanket, in use, in the tank, and a thickener in the tank comprising a weir arrangement to decant off, in use, excess floc from the blanket to form a sludge and means for conveying the sludge to a sludge outlet of the thickener. 19.6.78 as 003495 (11pp)

PATE- ★ D15 B/28 ★ZA 7803-617
Flotation clarification process - includes pre-saturating or supersaturating and mixing with fine gas bubbles
PATERSON CANDY INT 13.07.77-GB-029385
(25.05.79) B01d

A main stream of water is pre-saturated or supersaturated and then mixed with fine gas bubbles released from a recyl recycle flow of water which has been (partially) saturated with gas at a pressure above atmospheric. 23.6.78 as

003617 (13pp)

See Also

D13 DS 2445674 D16 US 4159251 D22 US 415
D22 US 4159254

D16: FERMENTATION INDUSTRY

ASAK ★ D16 B/28 ★BR 7800-180
Beer cooling process - for large/capacity fermentation tank
ASAHI BREWERIES KK 15.08.77-JA-097065
(08.05.79) C12c-09/06 11.1.78 as 000180

PALE/ ★ D16 B/28 ★CS 7601-057
Bacillus licheniformis strain cultivation
PALECKOVA F 19.02.76-CS-001057
(30.03.79) C12k-03

PASK/ ★ D16 B/28 ★CS 7700-450
Pectolytically active enzymatic compsn.
PASKOVA J 24.01.77-CS-000450
(30.03.79) C12d-13/10

FABI/ ★ D16 B/28 ★CS 7701-482
Pectolytic enzyme recovery from fermentation medium
FABIAN J 04.03.77-CS-001482
(30.03.79) C12d-13/10

KOCK/ ★ D16 B/28 ★CS 7701-507
Use of Cryptococcus for xylanase prepn.
KOCKOVA-KRATOCHVILO 07.03.77-CS-001507
(30.03.79) C12d-13/10

BART/ ★ D16 B/28 ★CS 7703-907
Biological stabilisation of continuous fermentation process - in microbial biomass prodn.
BARTA J 14.06.77-CS-003907
(30.03.79) C12b-01/20

ZEME/ ★ D16 B/28 ★CS 7800-153
Pure phosphorylase enzyme isolation
ZEMEK J 09.01.78-CS-000153
(30.03.79) C07g-07/02

ZEME/ ★ D16 B/28 ★CS 7800-248
Cross-linked protein prepn. - for proteolytic enzyme activity evaluation
ZEMEK J 13.01.78-CS-000248
B04 (30.03.79) C07g-07

BELN D16 71981S/45 =DS 2121-237
Virus culture
LAB BELLON R 11.05.70-FR-017053
*B04 C03 (05.07.79) *BE-766-442 C12k-07*

Bacterial cells IB-BS-2, (isolated at the Institute of Biology, Sao Paulo), are used to obtain attenuated viruses for the prodn. of inactivated vaccines. The prods. provide protection against foot and mouth disease, Newcastle disease and swine fever. 30.4.71 as 121237 (7pp047)

FABR D16 75678X/41 =DS 2613-943
Acellular vaccines prodn. - by mixing suitable RNA with bacterial membrane lipo) polysaccharides
FABRE P SA 02.04.75-FR-010252
*A96 B04 C03 (05.07.79) *BE-839-893 +A61k-35/66*

Prepn. of vaccines free from bacterial cells and based on ribonucleic acids, comprises mixing such ribonucleic acids (or extracts from corresp. microorganisms), (100 pts.wt.), with membrane lipopolysaccharides and polysaccharides (100-200 pts.wt.) extracted from suitable bacteria. The prods. exhibit no loss of antigenic activity. 1.4.76 as 613943 (5pp047)

TOBI- D16 04203A/03 =DS 2741-234
Antileukaemic antibiotic - by fermentation of Staphylococcus epidermidis ATCC 31310
TOBISHI PHARM CO 13.09.76-JA-109648
*B04 (05.07.79) *BE-858-661 A61k-35/74*

Anti-leukemia and anti-tumour agent comprises an active extract isolated from culture media in which Staphylococcus epidermidis ATCC 31310 has been propagated in the presence of the usual nutrients. The solid matter i
moved from the culture medium and the clear liquor
concentrated; the residue is washed with water and
washings are combined with the concentrate; the so
subjected to gel filtration on an absorptive gel or mo
ar sieves; the active fraction is collected for furthe
-ication. 13.9.77 as 741234(10pp047)

BIOG D16 51838A/29 =DS 2
Large volume fermenter for antibiotic mfr. - with twin baffle
and ribs of specified form for good heat transfer
BIOGAL GYOGYSZERGYA 01.12.76-HU-BI0553
*B04 (05.07.79) *DT2753-388 C12b-01/10*

A vertical cylindrical fermentation vessel, e.g. for
industrial manufacture of antibiotica, has along the
wall four to seven pairs of baffle plates which extend
the bottom to the top and consist of two arcuate baffl
These are arranged at a distance of 1-3% of the insi
in such a way that the ingress slot lies in the directi
the circulation of the built-in stirring mechanism.
width of the ingress area is made 1-5 to 2 times the
ss area. The radius of curvature of the baffles is m
10-15% of the inside cylinder dia.

This results in ideal conditions for heat transfer
well as for the flow parameters. 30.11.77 as 75338

BETZ/ ★ D16 50999B/28 ★DT 2
Glycerine prodn. - by anaerobic fermentation of green flag
e.g. chlamydomonas moewusii, followed by distillation
BETZ A 21.12.77-DT-757684
E17 (05.07.79) C12d-03/08

Glycerin prodn. comprises anaerobic fermentation o
flagellates, esp. Chalamydomonas Moewiisii and sin
types of algae, followed by distillation.

The algae are pref. first illuminated or fed to ind
ring of carbohydrates. The energy source is e.g. su
or small amts. of organic cpds. as found in effluents
household waste. 21.12.77 as 757684 (3pp903)

ALFA ★ D16 51088B/28 ★DT 27
Biological composing of liquids - by individually controlle
and separate air introduction into liquid
ALFA-LAVAL AGRAR 31.12.77-DT-759180
(05.07.79) B01f-03/04 B01j-10 C05f-07

Liquids are converted to compost by a biological pro
using O_2-contg. gase s which are distributed in the fr
formed on the surface of the liquids. The froth is in
ced in the liquid with the maximum suction created b
impeller. An additional separate gas stream is intr
at a point of lesser suction.

This ensures an unrestricted intake of froth. The
ssary mixing ratio of froth and gas can be easily mai
ed and set for a temp. range which is an optimum for
processing of the liquid into compost. 31.12.77 as 7
(14pp39)

AIRF- ★ D16 51099B/28 ★DT 28
Drying green malt - on perforated conveyor in count
meandering contact path
AIR FROHLICH AG 03.01.78-DT-800184
(05.07.79) C12c-01/06

A kiln drying process for green malt uses a perforate
nveyor which moves continuously and to which a hot g
flow is applied. The hot gas contacts the malt in a c
flow principle in several stages, in which the gas flo
alternately upwards and downwards through the mate
and the belt.

Arrangement combines a min. of heat input requi
with very little floor space requirements. 3.1.78 as
800184 (12pp39)

D16 51202B/28 ★FR 2405-298
rotein isolated from Escherichia coli - having
mmatory and immunostimulant activity
CASSENNE 27.01.77-FR-002266
(08.06.79) A61k-37/02 C12d-13/06

soluble glycoproteins extracted from lysed cells
herichia coli and shaving a molecular weight equal
greater than 300000 are new.
ed on antiinflammatories and immunostimulants,
in the treatment of inflammations of the skin and
ous membranes. They are also useful as anti-prur-
s agents, in dermatology, olorhino-laryngology,
omogy, proctology, and gynaecology, in the treatm
chronic or acute intestinal infections, alimetary
infections, microbial dysenteric syndromes, diges-
andidosis, and urinary infections. They are very
olerated. 27. 1. 77 as 002266 (16pp520)

★ D16 51203B/28 ★FR 2405-300
atic fermentation plant for industrial winemaking installation
dically recycles must independent of fermentation pressure
AR SPA 11.11.77-IT-069542 (04.10.77-IT-069197)
08.06.79) C12g-01 C12l-11

in tank contg. must is surmounted by an auxiliary
A fraction of liq. from the bottom of the main tank
riodically transferred up to the axuiliary tank from
it is dischanged as a spray to pass through the
on the must in the main tank. The base of the
iars tank is now formed as a removable partitio
into the upper part of the main tank. The edge of
artition makes a leakproof seal all around with the
wall. The auxiliary tank is simply a partitioned sect-
f the main tank.
ommunication between the two tanks includes a gas
from the main tank to a pressure-relief, fermenta-
lock in the auxiliary tank and an overflow return
the auxiliary tank to the main tank. Liq is transferr
rom the main tank to the auxiliary tank by pump contro
by an automatic timer. Pray return of liq. from the
liary tank to the main tank if via a valve which can be
ually or automatically actuated. The partition is pref.
ended from a lifting gear on which it can be raised
r of the tank and replaced with a floating top cover
the tank.
aising and spraying of must is independent of fermen
on pressure which can be kept at the low level consis-
with highest quality. After fermentation the tank can
dapted for simple storage by substituting a cover for
partition. 3. 10. 78 as 028193 (14pp448)

)/ ★ D16 51207B/28 ★FR 2405-407
acement drainage door for concrete tank esp. wine vat - comes
e size adaptable to seal different sizes of outlet
UJOL J F 07.10.77-FR-030200
65 (08.06.79) F16j-13

door is formed to retain a surrounding, annular,
ilient edge seal which is compressed between the
r and a metal seating set in the concrete around the
t. Compression of the seal takes place as the door
clamped to close the port. Different thicknesses of
l can be fitted to the door to suit different clearances
ween the edge of the door and the metal seating.
The seal is supported on the door edge pref. to with-
nd both radial and axial compression when the door
clamped to the seating. The seal can be of rectangular
oss-section, sitting in a groove in a hollow, sheet-me
door. The inner wall of the groove is higher than the
ter wall. Alternatively, the door can be made of a single
ickness of sheet metal. The seal is then held in the
gle of a shoulder between the periphery of the door and
external, radial flange.
As a leakproof door for the drainage port of a concrete
nk, partic. a wine vat. A cheap, robust, long-lasting
eplacement for old wood dorrs which have become defec-
ve. a single size of door can be adapted to seal a range of
ifferent sizes of outlet port of a given style. 7. 10. 77 as
30200(7pp448)

BEHW D16 96503X/52 =GB 1548-258
Virus vaccines from cell cultures - by infection insitu after dilution with serum free medium (BE101276)
BEHRINGWERKE AG 10.06.75-DT-525733
*B04 +R36 (11.07.79) *DT2525-733 A61k-39/12 C12k-09 +C12k-05 C12k-07*

In the prodn. of viruses in a cell culture, cells are proliferated in a culture medium contg. < 10(2-3)% (vol. by vol.) of serum, the serum is diluted with serum-free culture medium (I). the cells are infected with the virus, and the virus is allowed to proliferate. Pref. (a) the serum is bovine serum, and (b) the culture is diluted at least once with serum-contg. culture medium prior to dilution with (I) and/or the culture after infection with the virus is diluted at least once with (I).

The virus is pref. foot-and-mouth virus, reo-virus type (, II or III, the adeno- or entero-virus of pigs, or a herpes virus, and the viruses produced in the process may be worked up to a vaccine. 10.6.76 as 024056(5pp990)

KAKY ★ D16 51279B/28 ★GB 2011-425
Straight chain peptide type antibiotics K 582 M - useful as antimicrobials, antitumour agents, interferon inducers etc.
KAKEN YAKU KAKO KK 28.12.77-JA-157416
B04 (11.07.79) A61k-37/02 C07c-103/52 C07g-11 C07g-15 C12d-09/22

Straight-chain peptide-type antibiotics K582M (I) are new: They consits of 1 arginine, 1 threonine, 1 tyrosine, 2 ornithine, in hydroxyarginine and n lysine residues (esp. where m = n = 1 or m = 2 and n = 0).

Cultivation of metarhizium anisopliae ATCC 20500 in a nutrient medium gives a mixt. of the K582M antibiotics The prod. is isolated and then sepd. into the components by ion-exchange, chromatography etc. 582 M-A, as HCL salt, analyses for C, 39.35; H, 7.24; N, 18.03; Cl, 14.83. Similarly for K582-B, as HCL salt, the values are 36.25, 6.61, 18.62, and 14.06 , respectively. Molecular wts. are respectively1200-1300 and 1200-1220; and m.pts. are respectively 192-8 °C(dec) and 197-203 °C (dec).

(I) are antimicrobials esp. effective against fungi and yeasts, with antitumour activity and they confer or inhibit immunity in the mammal and are also interferon induces. 21.12.78 as 049731(19pp1248)

OKIN- ★ D16 51400B/28 ★J5 4067-087
Propagation of Chlorella - using as carbon source cane black-strap molasses
OKINAW CHLORELLA 08.11.77-JA-133021
(30.05.79) C12k-01

Chlorella is propagated by inoculating the molasses-assimilating Chlorella into inorganic salt base contg. as only carbon source cane blackstrap molasses under light conditions.

A large amt. of Chlorella can be obtd. at low cost. 8.11.77. as 133021 (4pp108)

DAIN ★ D16 51401B/28 ★J5 4067-089
Antithrombotic urokinase compsn. - contg. salt of chondroitin: sulphuric acid as stabiliser
DAINIPPON PHARM KK 07.11.77-JA-133812
B04 (30.05.79) A61k-37/48 C07g-07/02

Compsn. comprises urokinase and a salt of chondroitin-sulphuric acid, pref. the Na salt. Compsn. may be in powder form or in the form of a soln. Pref. 100 I. U. of urokinase contains >0.02 mg of the salt.

Compsn. is suitable for injection or admin. as eye-drops. Urokinase activated plasminogen in serum to convert into plasmin having fibrin-dissolving power, and is useful as an antithrombotic agent. Urokinase is normally unstable, partic. in soln., but in this new compsn. is stabilised by the salt. 7. 11. 77. as 133812 (5pp69)

NIRA ★ D16 51402B/28 ★J5 4067-090
Tube for protease adsorption - comprises polyamide, polyester or PVA on which is fixed a protease-inhibiting agent, pref. aprotinin
UNITIKA KK 09.11.77-JA-135016
A96 B04 (A14 A23) (30.05.79) B01d-15/08 C07f-07/02

Protease-inhibiting agent is used as ligand for purificn. of protease in affinity chromatography, and the protrease-adsorbed substance does not block the sieve of the column in which the substance is packed. The protease-adsorbed substance may be used for isolation or determn. of trypsin, plasmin, kalikrein, blood coagulation factor, etc. 9.11.77. as 135016 (6pp69)

BISE- ★ D16 51403B/28 ★J5 4067-092
Insoluble glucan decomposing enzyme prodn. - by culturing microorganism of Pseudomonas genus, for treatment of dental caries
Z H HAND BISEBUTSUB 02.11.77-JA-131988
B04 (D21) (30.05.79) A61k-07/28 C12d-13/10

The process comprises culturing insoluble glucan decomposing enzyme -producing microorganism of Pseudomonas genus and removing prod. obtd.

Insoluble glucan-decomposing enzyme (a-1,3-glucanase) may be used for prevention or cure of dental caries by vlending the enzyme into tooth-powder, chewing gum, troches or cleaning agent for oral cavity.Example of fungi is Pseudomonas SK-01. 2.11.77. as 131988 (5pp69)

AJIN ★ D16 51404B/28 ★J5 4067-093
Purificn. of aminoacid produced by fermentation from waste molasses - using ion exchange membrane following pretreatment with anion exchange resin
AJINOMOTO KK 07.11.77-JA-133298
B05 E19 (30.05.79) C07c-101/22 C12d-13/06

In purificn. of the desired amino acid contained in amino acid fermentation mixt. with the use of waste molasses by the use of ion exchange membrane, the fermentation mixt. is pretreated with anion exchange resin. Dialysis speed of the amino acid by the exchange membrane is thus increased, and thus efficient purficin. can be attained.

The waste molasses may be any conventional type. The amino acid includes glutamic acid, lysin, alginine, ornithine, leucine, isoleucine, glutamine, etc. The anion exchange resin may be weak basic, middle basic or strong basic ones. The resin is used in the form of OH, or Cl. The flow rate of the fermentation mixt. into the resin is 10-50RV. The ion exchange membrane may be any conventional type. The fermentation mixt. is pref. at first subjected to removing the cell body, for example, by coagulation and filtration. 7.11.77. as 133298 (3pp22)

TOYM ★ D16 51405B/28 ★J5 4067-096
Microbial oxidn. of sterol (deriv.) - with addn. of lanolin fatty acid to medium contg. microorganisms
TOYOBO KK 07.11.77-JA-133833
B01 (30.05.79) C12d-13

Oxidn. of sterols or their 4-en-3-one or 1,4-dien-3-one derivs. is effected by dehydrogenation of the A ring in a medium containing a microorganism to give the corresponding androstane cpds. Improvement is that a lanolin fatty acid is added to the medium.

Pref. the microorganisms are of the genus genera Arthrobacter, Protaminobacter, Micobacterium, Nocardia, Brevibacterium, Corynebacterium, Bacillus, etc. Addn. of the fatty acid improves the yield of androstanes. 7.11.77. as 133833 (4pp22)

MITU ★ D16 51406B/28 ★J5 4067-098
Prepn. of androstane cpds. - comprises culturing mutant strains of genus Nocardia in medium contg. sterol cpd.
MITSUBISHI CHEM IND KK 07.11.77-JA-133225
B01 (30.05.79) C12d-13

Prepn. of androstane cpds., comprises cultivation of a mutant microorganism belonging to the genus Nocardia in a culture medium containing sterol compound. The sterol compounds include sterol, its C-3 esters and C-3 ethers, or their oxidised prods. The mutant includes Nocardia aliena MCI-0710 (FERM. No. 4075) and Nocardia aliena MCI-0711 (FERM No. 4076). The mutants can be obtained by UV irradiation of strains of Nocardia isolated from soil.

The culture medium contains, besides the sterol compound, carbon source such as n-paraffin, a-olefin, methanol, glycerine, etc., nitrogen source such as yeast extract, meat extract, fish meal, etc., inorganic components such as $(NH_4(SO_4$ sulphate, ammonium NH_2Cl, Fe, Cu, Mg ,etc. The cultivation is conducted at 20-40°C, pref. 30-35°C at pH of 5-9. The resulting androstan compound can be sepd. and purified conventionally. 7.11.77. as 133225 (9pp22)

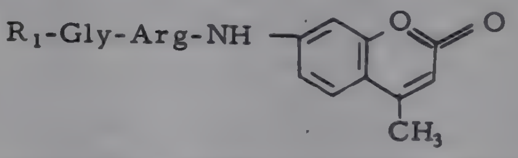
MITU ★ D16 51407B/28 ★J5 4
Prepn. of androstan cpds. - by cultivating Nocardia mutant
sterol and a glyceride
MITSUBISHI CHEM IND KK 07.11.77-JA-133226
B01 (30.05.79) C12d-13

In prepn. of androstan cpds. by cultivation of a mut
microorganism of genus Nocardia in a culture medi
contg. sterol, ≥0.1 wt.% of glyceride is incorporat
into the culture medium. The sterol cpds. include s
its C-3 esters, and C-3 ethers, or their oxides. Th
tant includes Nocardia aliena MCI-0710 (FERM No.
and Nocardia aliena MCI-0711 (FERM No. 4076). T
tants can be obtd. by UV-irradiation Nocardia strai
isolated from soil.

The culture medium contains, besides the sterols
bon source such as n-paraffin, a-olefin, methanol,
cerine, etc., nitrogen source such as yeast extract,
extract, fish meal, and the like, inorganic compone
such as $(NH_4)_2SO_4$, NH_2Cl, Fe, Cu, Mg, etc. The gl
ide includes those originating from natural substanc
e.g. cotton seed, soybean, corn. Amount of glyceri
used is 0.1-10 wt.%. The cultivation is conducted at
40°C at pH of 5-9. The resulting androstan cpd. can
isolated and purified conventionally. 7.11.77. as 13
(12pp22)

SEGK ★ D16 51507B/28 ★J5 40
Determn. of toxin in bacteria in a sample - using fluo
substrate derived from 7-amino 4-methyl-coumarin
SEIKAGAKU KK 10.11.77-JA-134074
B04 J04 R16 (B02) (01.06.79) G01n-31/22

Method of detecting and determining toxin in bacteria
in a sample comprises contacting a fluorescent subs
of formula (I) (where R_1 is L-amino acid radical hav



(I)

protective group at terminal N or peptide radical co
sisting of L-amino acid) and amoebocyte lysate of
Horseshoe crab and/or enzyme component sepd. fro
lysate with the sample, and detecting or determining
amino-4-methylcoumarin thus formed by fluorescent
analytical method.

Toxin in bacteria can be rapidly and quantitatively
cted with high sensitivity. The method is sensitive to
10^{-6} to 10^{-9} µg/ml. 10.11.77. as 134074 (7pp50)

TAKE ★ D16 51883B/28 ★J5 407
Antibiotic C-1364s - having antibacterial activity against
positive organisms, and also having anti:neoplastic activity
TAKEDA CHEMICAL IND KK 10.11..77-JA-135434
B04 (05.06.79) C07g-11 C12d-09/14

Antibiotic C-13648 has characteristics e.g. (1) colour
less powder; (2) formula $C_{21}H_{26}N_2O_4$; 3) mol. wt. (MS):
(4) $[a]^{20}_{D}$ + 419.6°; 5) IR (KBr): 3400, 3140, 2960, 29
2850, 1625, 1585, 1510, 1460, 1440, 1410, 1380, 134
1280, 1250, 1205, 1180, 1135, 1065, 1020, 945, 880,
810, 780, 765, 690 cm^{-1}.

Prepn. of antibiotic C-13648 comprises culturing
suitable microorganism belonging to Streptomyces in
medium.

The antibiotic C-13648 is antibacterial against Gra
positives useful as bactericide or disinfectant, and inhibitory to nucleic acid synthesis useful as antineopla
agent. 10.11.77. as 135434 (9pp38)

KYOW ★ D16 51970B/28 ★J7 901
Fertiliser for seaweed cultivation - is produced by drying
fermentation material in a rotary dryer
KYOWA FERMENTATION KK 22.10.71-JA-083273
C04 P13 (18.06.79) A01g-33/02 C05f-05

Waste material obtd. from fermentation process is fe
a rotary dryer to dry it under evaporation or form gra
es. The resultant is useful as fertiliser for growing
weed and can float on water surface for prolonged

high fertilisering effect. 22.10.71 as 083273
00, A01g-33/02 (18.6.79) KYOWA FERMENTATION
22)(J48045256)

D16 52072B/28 ★SU -624-164
l, e.g. yeast, culture substrate concn. in nutrient -
d by intensity of luminescence of irradiated microbial cell
mide-adenine-nucleotide
COW CHEM EQUIP INST 22.03.77-SU-468148
(07.09.78) G01n-33/16
ncn. of substrate used for culturing microorganisms,
east is estimated in nutrient medium by irradiating
robial suspension with monochromatic light of 330-
wavelength and measuring the luminescence inten-
oxidised and reduced forms of nicotinamide-aden-
cleotide in microbial cells. The results are plotted
amt. of substrate required for the microbial grow-
iven aeration is determined from the graph.
apparatus includes nutrient analysis test and stand-
lls, light source, two-beam irradiation system;
r, light filters and a light intensity measuring syst-
th photomultiplier using intergrated circuit for high-
uracy. It also includes aeration system and nutrient
idising agent inlet and outlet pipes connected to test
parison chambers. There is a means for the remov
spent microbial suspension.
pical substrate is paraffin and the typical microbial
e is Candida Guiliermondii strain.
tyan, A.A., Laltsova, G.A., Erovmova, V.P. et al
34/15.9.78. 22.3.77 as 468148 (4pp938)

= ★ D16 52091B/28 ★SU -624-591
oom drying in two stages - using hot circulating air with
onal end drying at specified temp. and moisture content
RESTRY MECHANISAT 19.07.76-SU-392917
(08.08.78) A23b-07/02
quality of the mushrooms is increased, together with
commercial appearance, and the drying time is re-
d, by carrying out the process in two stages, in the
nd of which part, primarily half of the air being re-
ed is moved around a chamber with the formation of a
lation contour.
he first stage is carried out with the mushrooms hav-
moisture content of 32-38%, while in the second the
is 18-24%. After the second stage the mushrooms
subjected to extra drying with complete circulation of
air. In both the main and extra drying the air is sup-
d at 60-70 °C.
kaev, N.M., Zubarev, V.M., Ulanenkov, A.M. et al.
35/25.9.78. 19.7.76 as 392917 (2pp29)

A= ★ D16 52110B/28 ★SU -624-636
rum prodn. from klebsiella microbial strain - includes culturing
roth with glucose, passivation on agar medium and selection of
ule type colonies, used in agglutination tests
OSC VACCINE SERUM 14.07.76-SU-384005
04 (09.08.78) A61k-39/40
erum prepn. includes culturing Klebsiella vaccinal
ain in nutrient medium, selection of active colonies
ch are then cultured in a broth contg. glucose. The re
lting biomass is inactivated with formalin and used to
nunise animals to obtain final prod.
The specificity of K-serum is increased, for use in
lutination reaction, by culturing the above strain in
ttinger broth with addn. of glucose and subsequent passi
ation in Worfel-Ferguson agar nutrient. The active col-
es are selected on the basis of capsule formation.
seleva, B.S., Kadnikova, L.V., Golubova, I.V. Bul.
/25.8.78. 14.7.76 as 384005 (2pp938)

PO= ★ D16 52232B/28 ★SU -624-914
erry prodn. line control - by measuring air-oxygen concentration
stream and downstream of reactor, for feed adjustment
YAPOVENY AGRIC IND 01.03.76-SU-328311
(08.08.78) C12g-01/02
e automatic control of sherry making in a flow line im-
oves product by adjusting oxygen feed as a function of
fference between the set and actual level of dissolved
ygen. The level of dissolved oxygen in the wine is deter
ined by measuring the flow rate of air-oxygen mixture
in upstream and downstream of the reactor.

Kozub, G.I., Matura, M.K., Antonovich, A.L. et al. Bul. 35/25.9.78. 1.3.76 as 328311 (3pp89)

SUND/ ★ D16 B/28 ★SW 7713-285
Composting appts. with upper and lower chambers - separated by perforated plate through which solids are carried by added water
SUNDBERG H M 24.11.77-SW-013285
+P28 (25.06.79) A47k C05f-03/06

A closed housing has a top inlet, a cavity for waste, and a fan. The cavity is split into upper and lower parts by a perforated plate. The size of the holes in the plate is such that solids can pass through the plate only if they are washed through the holes by water.

The water is supplied either through the top inlet or through a nozzle in the top of the housing. The water collects in a trough covered by a strainer, and flows away through a pipe. 24.11.77 as 013285 (-pp1407)

KURE D16 15897A/09 =US 4159-225
Mono:karyotic mycelium of coriolus versicolor mfr. - used to prepare nitrogen-contg. polysaccharide
KUREHA KAGAKU KOGYO 30.08.76-JA-103379
*B04 C03 +P13 (26.06.79) *BE-858-097 C12d-13/04 C12k-01 +C12b-01/08*

A monokaryotic mycellium of coriolus versicolor (Fr.) Quel is produced by shearing or grinding dikaryotic mycelia in a liq. medium and subsequently or simultaneously cultivating in a submerged culture. Monokaryotic mycelium is recovered having a higher propagation rate than dikaryotic mycelia.

Pref. shearing or grinding is performed by a homogeniser or an agitator. Submerged culture is carried out continuously while addition ally supplying the liq. medium. Grinding process employs glass beads. Submerged culture medium contains 5-10 wt.% glucose and 0.75-1.5 wt.% yeast extract.

Polysaccharides are obtd. from coriolus versicolor (Fr.) Quel, and used as a base component for the prepn. of medical drugs or food and drinks. 19.8.77 as 826118 (5pp931)

ELIL D16 01894B/02 =US 4159-226
Mfr. of Streptomyces protoplast which regenerates viable cells - by forming protoplast during transition phase of growth of organism
ELI LILLY & CO 01.07.77-US-812084
*B04 (26.06.79) *BE-868-472 C12k-01/02*

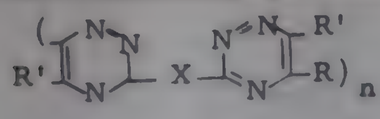
Streptomyces protoplasts are obtd. which are capable of efficiently regenerating viable cells. Streptomyces cultures are grown in the transition phase between the exponential and stationary phase, then forming the protoplasts.

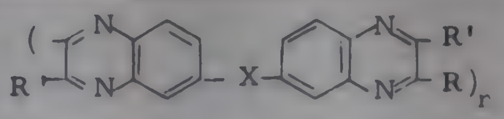
Pref. the additional step of regenerating viable cells from the protoplasts formed is employed. Streptomyces species used are those able to produce antibiotics, esp. aminoglycoside antibiotics, macrolide antibiotics, betalactam antibiotics, polyether antibiotics or glycopeptide antibiotics.

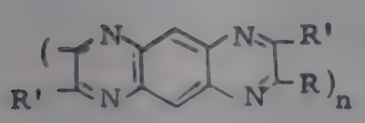
Protoplasts obtd. by this method enhance the use of protoplast-fusion techniques to effect genetic exchange within the genus Streptomyces, and facilitating the construction of hybrid or recombinant strains which produce novel metabolites with useful properties. 1.7.77 as 812084 (5pp931)

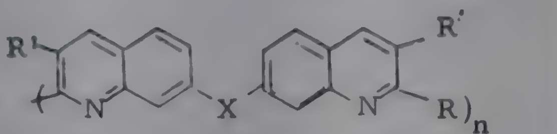
PHAR- D16 25705A/14 =US 4159-251
Microporous ultrafiltration membranes - prepd. from heteroaromatic polymers, used e.g. for filtering or concn. of fluids for intravenous infusion
PHARMACO INC 29.09.76-US-728453
*A88 B07 J01 +P34 (A96 D15) (26.06.79) *DT2743-673 B01d-13/04 B01d-31*

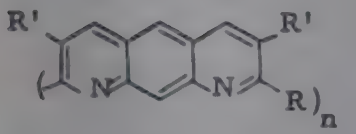
A membrane consisting of a microporous structure having semipermeable properties, said membrane being formed by contacting a film made from a soln. contg. at least one heteroaromatic polymer with a nonsolvent in which said polymer is essentially insoluble, said polymer having a recurring structure selected from the gp. consisting of one or more of the following formulas:


(A)

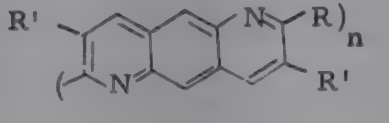

(B)


(C)


(D)


(E)

and


(F)

wherein R is phenylene, diphenylene, diphenyl ether, diphenylsulfide, diphenyl sulfone, diphenylmethane, naphthyl, pyridylidene or alkylene of 1-6 carbon atoms. R' is hydrogen, an aromatic radical or an aliphatic radical, X is a carbon-to-carbon bond, oxygen, sulphur, sulphone, methylene, isopropylene, carbonyl or pyridylidene and n is 10 to 10000. 29.9.76 as 728453(-pp)

BACH/ D16 76283A/43 =US 4159-319

Prodn. of attenuated transmissible gastroenteritis virus - for making live vaccines to protect pigs by repeated passages on tissue culture

BACHMANN P A (PHIG) 21.04.77-NL-004348

*B04 C03 (26.06.79) *BE-866-150 A61k-39/12 C12k-07*

A vaccine is prepd. contg. a live, attenuated, non-virulent, immunogenically active TGE virus strain. A virulent TGE virus strain is isolated directly on wine thyroid gland tissue, then subjected to a large number of passages in the tissue to attenuate the virus whilst maintaining it immunogenically active. Attenuated virus is then formula a vaccine.

Pref. the virulent B1 strain is used, which is su to 250-350 passages at 37°C. Each passage is incu at 37°C for 1-2 days. The liq. contg. virus is then and again subjected to the passage processing.

Vaccine is used to protect pigs, esp. piglets, ag transmissible gastroenteritis (TGE). 19.4.78 as 89 (3pp931)

TOBI- D16 04203A/03 =US 4

Antileukaemic antibiotic - by fermentation of Staphyl epidermidis ATCC 31310

TOBISHI PHARM CO LT 13.09.76-JA-109648

*B04 (26.06.79) *BE-858-661 C07g-11 C12d-09/20*

An agent for inhibiting tumours, induced by leukemi by inoculation of leukemia cells, Ehrlich cancer cel Sarcoma 180 cells, comprises active substances pro by cultivating Staphylococcus epidermidis STF (Biko Deposit No. 3706; ATCC 31310) in a nutrient mediu -g. N. components and inorganic salts. The active ances are water-soluble, crystalline powders which stable after heating at 100°C for 15 mins. IR and U ctra are given.

The agent is pref. prepd. by cultivating Staphyloc epidermidis STF in a liq. culutre medium contg. C a components and inorganic salts; removing the solid entrating the soln., water-washing the pptes., re-di ving them; fractionating the soln., selecting a fracti -hibiting the activity. concentrating it, further puri it; and sepg. the agent of mol.wt. 5000-10000. 6.9. 830746(10pp976)

See Also

D13 SU 624592 D17 GB 2011397 D17 J5 40671

D17: SUGAR; STARCH

MASW D17 58620V/33 =DS 2305-326

Continuous sugar centrifuge - having sylindrical sieve drum eccentrically mounted in rotor rotating about main axis

MASCH BUCKAU WOLF R 03.02.73-DT-305326

*P41 (05.07.79) *DT2305-326 B04b-03/04*

A screen centrifuge, for the gentle treatment of crystallised sugar, consists of a rotor in which an eccentric perforated basket is driven independently from the rotor by a pinion on the central worm drive. The worm conveyor is housed in a hollow shaft for the rotor, with a slot and a scraper which contacts the inside of the perforated basket. The worm conveyor is driven at a differential speed to the rotor and contacts with its periphery the inside of the basket to remove the crystallised sugar layer.

The crystals are thus discharged in an area of little acceleration and velocity and retain their shiny appearance. 3.2.73 as 305326 (5pp39)

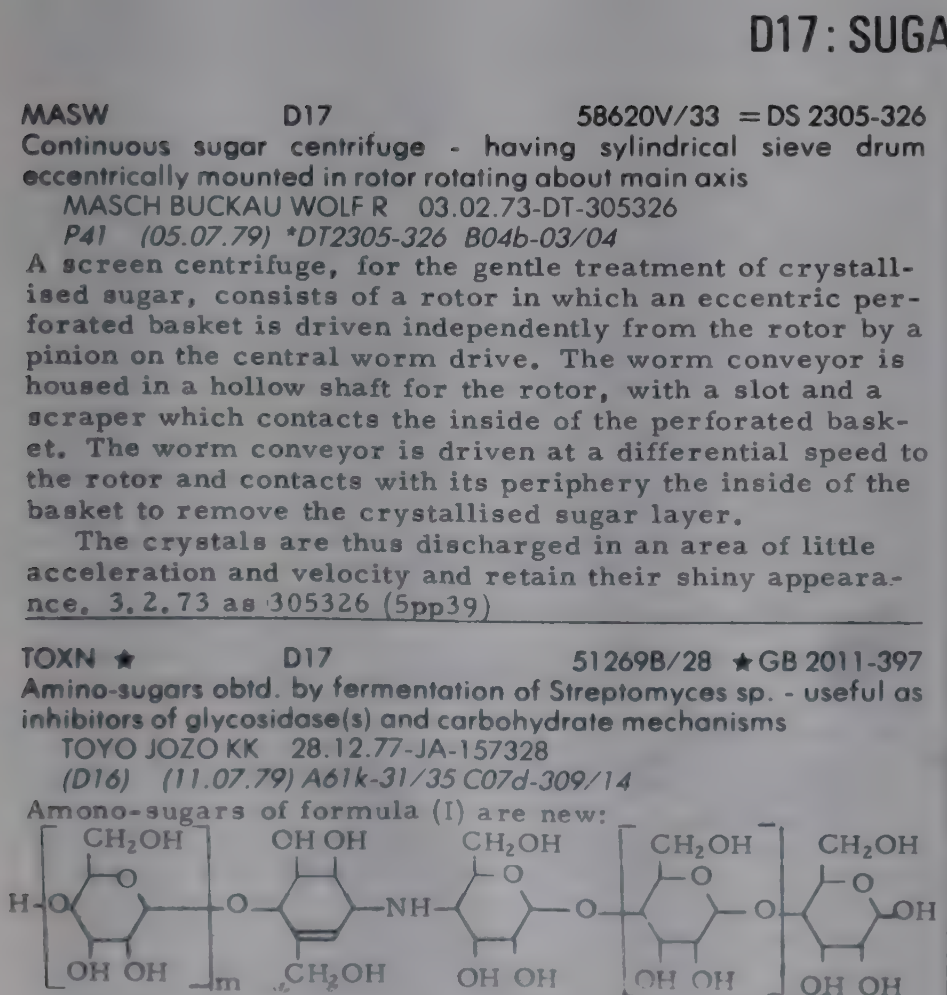
TOXN ★ D17 51269B/28 ★GB 2011-397

Amino-sugars obtd. by fermentation of Streptomyces sp. - useful as inhibitors of glycosidase(s) and carbohydrate mechanisms

TOYO JOZO KK 28.12.77-JA-157328

(D16) (11.07.79) A61k-31/35 C07d-309/14

Amono-sugars of formula (I) are new:


(I)

(m is 0-8 and n is 1-8, with m + n = 1-8).

(I) have a strong and specific inhibiting action against glycosidases, and they are useful in inhibiting the carbohydrate mechanism in man and animals and so can be to treat diabetes, obesity, pseudohypertrophia lipoma secondary conditions caused by the abnormal metabol diseases cuased by sugar metabolism by micro-orga in the mouth, e.g. decayed teeth. 20.12.78 as 04918

SEGK ★ D17 51408B/28 ★J5 40

Hyaluronic acid extn. from cocks-combs - by treating with pr opt. followed by elution of chondroitin:sulphuric acid fro residue

SEIKAGAKU KK 05.11.77-JA-132189

B04 (D16) (30.05.79) C12d-13/04

Process comprises treating raw fresh cockscomb wit protease to elute hyaluronic acid selectively. Specific a process for fractionation of acidic mucopolysacchar comprises treating raw fresh cockscomb with protea eluate hyaluronic acid selectively and then eluting cho driotinsulphuric acid from the residue with salt soln. or the process comprises treating raw fresh cocksco with protease to elute hyaluronic acid, chondroitinsul ic acid and collagen selectively.

Thus, on fractionation of acidic mucopolysacchari (AMPS) from cockscomb, hyaluronic acid (HA) is frac tionated selectively and equivalently by eluting from r fresh cockscomb, and eluting chondroitinsulphuric aci (CHS) from residual cockscomb with salt soln. and el acid-soluble collagen from the residue. HA is useful medical therapy. 5.11.77. as 132189 (5pp69)

TAKA/ ★ D17 51546B/28 ★J5 40

Granulated starch prodn. for spraying - by granulating mi starch ether, dispersing agent, lubricating agent and water sepg. the smaller particles

TAKAYAMA M 05.11.77-JA-132856

ated starch is produced by (1) mixing 100 pts. wt. ch ether, 10-15 pts. wt. of dispersing agent and pts. wt. of lubricating agent with a small quantity er, (2) granulating the resulting mixt., and (3) g the 15 mesh-passing fraction from the larger-particles.

e process provides granulated starch for spray-ing use, which can be easily dissolved in water to re the spray soln. 5.11.77. as 132856 (2pp173)

D17 51844B/28 ★J5 4069-663

ting, cutting or spinning oil compsn. - contg. a di:stearyl f a dimer acid

I CHEMICAL KK 14.11.77-JA-137039

H07 (04.06.79) C07c-67/03 C10m-03/20

oil compsn. is used as lubricating oil, cutting oil or ing oil. The oil compsn. is not polymerised by generated during its use, chemically stable and at room temp.

e distearyl ester of dimer acid is produced by hea-dimethyl ester of dimer acid and stearyl alcohol 00°C or in the presence of LiOH as a catalyst to e ester exchange.

an example, 2160 kg stearyl alcohol is added to kg dimethyl ester of dimer acid and mixed with it. The mixt. is heated at 205°C, with stirring. 400g of LiOH is added to the mixt. The reaction takes place at 200 to 250°C for 9 hours. The methyl alcohol is collected. The reaction products are mixed with 45 kg active clay at 100°C for 1 hour. The mixt. is filtered to obtain 4100 kg of distearyl ester of dimer acid. 14.11.77. as 137039 (4pp86)

AMST- ★ D17 52405B/28 ★US 4159-210

Free-flowing dried maple sugar - prepd. by impact beating concentrated syrup and drying aggregates formed

AMSTAR CORP 15.06.78-US-915719

(26.06.79) A23l-01/09 C13f-01/02

Maple syrup is concentrated to a solids content of 93-98%, and then subjected to impact beating in a crystallisation zone until transformation and crystallisation occur. Aggregates of sugar crystals of size 3-50 microns and moisture content 2-4 wt.% are produced. These are recovered and dried to a moisture content < 1%.

The prod. remains free flowing, and can be easily dissolved in water to reconstitute maple syrup. It may also be used to make fondants, icings, tabletted maple syrup, or as a flavour encapsulant. 15.6.78 as 915719(6pp955)

See Also

D15 J5 4069252

D18: SKINS; HIDES; LEATHER; TOBACCO

A- D18 61409T/39 =DS 2210-255

cco substitute - from wood-deficient plant material admixed pectin, aminoacids and sugar

AB TABAC REUNIES (TAMG) 09.03.71-LU-062752

*15 (05.07.79) *DT2210-255 A24b-15/05*

obacco substitute compsn. is made from plant material ing a low wood content and low or free of chlorophyll fats (leaves, fruit, etc.). The material is slurried h water, dried and sugar, amino acids, film-formers , opt., plasticisers added.

The solids of the slurry should be adjusted to ⩾ 2 wt.% ino acids, ⩾ 10 wt.% sugar and ⩾ 7.5 wt.% pectin by nt extracts and Na CMC may opt. be added as a further m former. The compsn. is then converted to a suitable m by known methods. The smoke is pleasant and mild. 3.72 as 210255 (6pp922)

HG D18 88347Y/50 =DS 2621-697

ating sulphide tanned pelts in aerated acid baths - contg. metal ts to reduce hydrogen sulphide evolution

ROHM GMBH 15.05.76-DT-621697

*(05.07.79) *DT2621-697 C14c-01/08*

method is given for lessening H_2S gas evolution in the treatment of pelts. The method comprises oxidising the acid treating bath prior to tanning with oxygen in the presence of water-sol. Mn (II), titanyl or zirconyl salts. These latter are generally used in amts. 2-20 wt.% and the pref. salts are $MnCl_2$ or $MnSO_4$. 15.5.76 as 621697 (4pp)

MOLI= ★ D18 52233B/28 ★SU -624-915

Finishing chrome leather for shoe uppers - by combined dyeing, oiling and filling with anionic di:cyano-di:amide resin, and additional chrome tanning

MOSC LIGHT IND INST 28.04.77-SU-483461

A97 (04.08.78) C14c-09

The process is intensified and simplified by carrying out the filling before the oiling; after the oiling, the hide is additionally treated with a tanning compsn. contg. chromium cpds. By this method, the duration of the process is shortened and the contamination of the effluent waters is reduced. The water consumption is also decreased by the above procedure.

Strakhov, I.P., Kutsidi, D.A., Vendrov, Ya.A. et al. Bul. 35/25.9.78. 28.4.77 as 483461 (2pp70)

See Also

D13 SU 624561

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL ; TOILET PREPARATIONS

WICH/ ★ D21 B/28 ★CS 7607-605
Teeth treatment compsns. prepn.
WICHTERLOVA L 24.11.76-CS-007605
P32 (30.03.79) A61c-05/02

VONA/ ★ D21 B/28 ★CS 7800-237
Toilet soap
VONASEK F 12.01.78-CS-000237
(30.03.79) C11d-09/22

OREA D21 11594X/07 =DS 2532-934
Skin-softening cosmetics contg acellular plankton products - whose cell membranes have been ruptured/destroyed by physical means
L'OREAL SA 24.07.74-LU-070601
*(05.07.79) *DT2532-934 A61k-07/48*

Plankton prods. from sulphurous hot wells, useful in hygenic/cosmetic skin formulations are acellular in form, the cell membranes having been broken mechanically or thermally without affecting the chemical constitution. 23.7.75 as 532934 (4pp922)

BLEN ★ D21 50979B/28 ★DT 2757-280
Tooth paste compsns. contg. zeolite - to reduce corrosion towards aluminium tooth paste tube
BLENDAX WERKE SCHNEIDER 22.12.77-DT-757280
(05.07.79) A61k-07/16

Toothpaste compsns. contain a polish and other conventional ingredients, and also a zeolite-type alkali metal aluminosilicate (I). Incorporation of (I) inhibits corrosion of Al (e.g. in toothpaste tubes).

(I) is pref. NaA zeolite of formula $Na_{12}(AlO_2)_{12}(SiO_2)_{12}.27H_2O$, and is used in an amt. of 0.05-5.0 wt. %. The polish can be a Ca phosphate, $CaCO_3$, $MgCO_3$, $Al(OH)_3$ or an insol. alkali metal metaphosphate, pref. used in an amt. of 15-60 (esp. 20-40) wt. %. The compsns. can also contain humectants, thickeners, surfactants, F cpds., enzymes, plaque removers and other additives. 22.12.77 as 757280 (10pp367)

BLEN ★ D21 50980B/28 ★DT 2757-290
Tooth paste compsns. contg. zeolite - as polish which is non-corrosive to aluminium tooth paste tube
BLENDAX WERKE SCHNEIDER 22.12.77-DT-757290
(05.07.79) A61k-07/16

Toothpaste compsns. are based on a polish and conventional ingredients. The polish comprises, at least predominantly, a zeolite-type alkali metal aluminosilicate. Zeolite-type polishes are non-corrosive w.r.t. Al (e.g. in toothpaste tubes) have good compatibility with F cpds., and give a good polishing action without being excessively abrasive.

The zeolite can be used alone or in combination with minor amts. of other polishes, e.g. Ca phosphates, silica gels, $CaCO_3$, $Al(OH)_3$, powdered plastics or insol. alkali metal metaphosphates. The pref. polish is NaA zeolite of formula $Na_{12}(AlO_2)_{12}(SiO_2)_{12}.27H_2O$, with a particle size of 1-20 (esp. 2-10)µ. 22.12.77 as 757290 (12pp367)

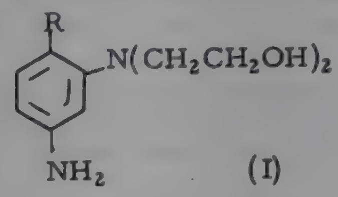
HENK ★ D21 51022B/28 ★DT 2758-202
Shower-bath skin cleansing compsns. - contg. finely divided alkali metal aluminosilicate
HENKEL KG AUF AKTIEN 27.12.77-DT-758202
E33 (05.07.79) C11d-03/12

Shower-bath compsns. contain 2-30 (pref. 5-25 (wt. %) of a finely divided water-insoluble aluminosilicate of formula $(M_2O)x.Al_2O_3.(SiO_2)y$ (I): (where M is an alkali metal, pref. Na; x = 0.7-1.5, pref. 0.7-1.1; y = 0.8-6 with a particle size of 0.1-25 (pref. 1-12) µ and a Ca-binding capacity of 20-200 mg CaO/g (based on anhydrous active substance).

The compsns. have a deep but mild cleansing action without the skin-irritant and -drying effects of compsns. with a high surfactant content. 27.12.77 as 758202 (24pp367)

HENK ★ D21 51023B/28 ★DT 2
Oxidative hair dyes - contg. N,N-bis-hydroxyethy
phenylenediamine cpds. as coupling components
HENKEL KG AUF AKTIEN 27.12.77-DT-758203
E24 (05.07.79) A61k-07/13

Hair colourants based on oxidn. dyes contain (a) m-
enediamine derivs. of formula (I):



(I)

(where R is H or 1-4C alko
their (in)organic salts as c
components, and (b) conven
developers. Suitable devel
include p-phenylenediamine
its derivs., p-aminophenol
and tetraaminopyridine der
and heterocyclic hydrazones. Oxidative coupling ca
effected by atmospheric O_2 or by using a chemical o
agent, e.g. H_2O_2 or its adducts.

The colourants give very intense amber to violet
with good fastness. Cpds. (I) are readily water-sol
have good storage stability and are toxicologically a
matologically harmless. 27.12.77 as 758203 (11pp3

ALBR ★ D21 51110B/28 ★DT 28
Liq. surfactant concentrates - contg. mixt. of anionic surf
forming a mobile G phase in water
ALBRIGHT & WILSON LTD 08.12.78-DT-853136 (09.12.
051293)
A97 (A25) (05.07.79) B01f-17

Aq surfactant compsns. capable of forming a lamell
phase at < 23°C are claimed. The compsns. compr
20-50 wt. % H_2O and > 5 (pref. > 10) wt. % each of >
erent surfactants selected from alkyl sulphates, alky
ether sulphates, olefin sulphonates, alkylbenzenesul
ates, alkyl sulphosuccinates, alkanolamide sulphosu
ates, paraffin sulphonates, fatty acid carboxylates,
ether carboxylates, alkyl phosphates, alkyl ether ph
ates, alkylphenol sulphates, alkylphenol ether sulpha
alkylphenol ether sulphonates, fatty acid ester sulph
fatty acid sulphonates, acylsarcosinates and acyltaur
(where the alkyl, alkenyl or acyl gps. contain an av.
22 C atoms, ether gps. are glyceryl gps. and/or pol
alkylene gps. contg. 1-20 ethylene oxide and/or prop
oxide units).

The compsns. can be used as industrial or domes
ergents. Owing to the relatively low viscosity of the
phase, they can be produced in liq. form at much hig
surfactant concns. than is normally possible. 8.12.
853136 (35pp367)

ESPE ★ D21 51165B/28 ★DT 28
Opaque dental filling materials - based on photopolyme
resin contg. calcium fluoride as white pigment
ESPE FAB PHARM PRAPARATE 03.01.78-CH-000038
A96 (A14) (05.07.79) A61k-05/06

Photopolymerisable dental filling materials contain m
and/or polyfunctional (meth)acrylate esters, photo-in
tors, pigments and opt. activators and silica or silic
fillers. The improvement is that the materials conta
20 (pref. 2-15) wt. % of finely divided CaF_2 as white p
ent.

The particle size of the CaF_2 is pref. < 60 (esp. <
µ. Suitable initiators are benzoin or its derivs., ben
monoketals or 1,2-diketones, opt. used together with
elerators such as organic phosphites or tert. amines.

The materials are sufficiently transparent to short
wave light to allow photo-initiated hardening while bei
sufficiently reflective for visible light to provide the
ired matt-white appearance. 28.12.78 as 856550 (14p

D21 51180B/28 ★FR 2405-068
oil emulsions for dry skin - contg. vitamin/A, stigmasterol,
n, and alpha tocopherol
3A LAB SA 10.10.77-FR-030432
B04 (08.06.79) A61k-31/35

in oil emulsions for topical application contain
, pref. 25-30% hydrogenated firsh liver oil, rich
min A, 0.1-1% preferably 0.5%, of an unsaponifia-
ction of animal or vegetable oil, contg. stigmas-
0.5-2%, pref. 1%, allantoin, and 1-5%, pref. 3% of
table oil rich in natural vitamin E, present as
herol, the remainder being supports for topical
ation, all percentages being by weight.
gmasterol possesses anti-scleroatrophic properties
applied to conjunctive tissue, α-tocopherol is a sym
to stigmasterol and prevents the formation of toxic
ides from unsaturated fatty acids, allantoin stimula-
newal of the epidermis and normalises formation
meal cells in the sebaceous pores. Used in treatment
aneous desiccation. 10.10.77 as 030432(16pp520)

★ D21 51181B/28 ★FR 2405-069
tological water in oil hormonal emulsions - contg. water
e oestrogen, liposoluble oestrogen, and androgen
JBA LAB SA 10.10.77-FR-030433
6 B04 (08.06.79) A61k-37/24

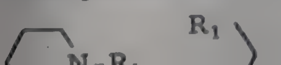
r-in-oil emulsion for topical application that contain
er-soluble oestrogen, a lipo-soluble oestrogen, and
droge, the androgen content being ~10 the total oes-
n content, are new.
ne compsns. pref. contain 0.005% water sol. oestro-
0.005% liposoluble oestrogen, and 0.100% androgen.
androgen is typically testerone or one of its salts.
water sol oestrogen is pref. oestrone or one of its
, and the liponsoluble oestrogen is pref. oestradiol
ne of its salts.
dditional materials which are pref. present are preg-
lone and allantoin, with water making up 30% of the
position.
sed in treatment of skin deterioration due to age,
nate etc. such as dryness, atonia, and cutaneous atro
10.10.77 as 030433 (18pp520)

D21 08684A/05 =GB 1548-346
onic aq. hair shampoo - contg. e.g. tri:alkylamine oxide,
oxyethylene hexitan ester, alkoxy-polyoxyethylene-ethanol
(or) alkyl glycoside
OLGATE PALMOLIVE CO 23.07.76-US-708116
96 E16 (11.07.79) *DT2732-734 +C11d-01/82

hampoo conpsn. is prepd. comprising 3-30 wt.% a tri-
l amine oxide of formula $R, R_2R_3N \rightarrow O$, 2-30 wt.% of
oxyethylene hexitan mono-10-20C fatty acid ester,
0 wt.% of a non-ionic detergent or 1-6wt.% of (di)2-3C
ano/amide and 0.05-1 wt.% of polyacrylamide, and 25-
wt.% of water.
In the formula, R_1 is 10-20C alkyl or 10-20C acylamido
C alkyl, R_2 and R_3 are each 1-4C alkyl or hydroxyalkyl.
tty acid ester contains 4-100 mols. of ethylene oxide
mol. Detergent is 10-20C alkoxy polyoxyethylene eth-
l with ethylene oxide content (including the El-moiety
the ethanol) 6-20 mols per mol, 10-20C alkyl glycosides
their mixts. Polyacrylamide has mol. wt of 1,000-
000,000.
Shampoo allows washing of hair without destroying or
versely affecting salt of disulphide bonders of keratin,
without changing the isoelectric pt. ofthe hair. 20.7.77
030487(6pp931)

RO D21 68788X/37 =GB 1548-377
Alkyl-piperidines - for treatment of dental caries and periodontitis
FERROSAN 22.04.75-GB-016673
B03 (11.07.79) *BE-841-001 A61k-07/16 C07d-295/08

ompsn. for the treatment of the oral cavity and/or tooth
rfaces, comprises as active ingredient >1 piperidine
riv. of formula (I) or its acid addn. salt with a carrier
excipient.



In (I) R_3 is opt. branched 2-10C hydroxyalkyl, and the cpd. is substd. in the 2, 3 or 4 position

alkyl and R_2 is H or opt. branched alkyl R_1 and R_2 together contg. 3-4C atoms. The sum of C atoms in R, R_1 and R_2 is $\geqslant 10$.

The compsn. is esp. useful for the prevention of cavies and periodonitis. 21.4.76 (18pp924)

HENK ★ D21 51272B/28 ★GB 2011-403
Mono- and di:carboxylic acid 2-hydroxy-alkyl ester(s) - useful as water in oil emulsifiers, esp. for cosmetic emulsions
HENKEL KG AUF AKTIEN 22.12.77-DT-757278
E19 (11.07.79) A61k-07/48 B01f-17 C07c-69

Mono- or dicarboxylic acid 2-hydroxyalkyl esters (I) are new:

$$(R_3O_2C)_n - A - CO_2CH_2CR, R_2OH \qquad (I)$$

(Where A=alkyl(ene), or aryl(ene) all opt. substd. or interrupted by hetero atoms; R_1=H, 1-12C alkyl; R_2=10-22C alkyl; R_3=H, or $CH_2CR_1R_2OH$; n=O or 1).

Prefd. (I) have n=1; A=2-4C alkenylene or alkylene (both opt. contg. OH); $R_3=CH_2CR_1R_2OH$; R_2=10-18C alkyl)

(I) are useful as H_2O-in-oil emulsifiers, partic. for the prodn. of H_2O-in-oil cosmetic emulsions. (I) are colourless and odourless (and hence do not need strong perfumes), and do not oxidise. Creams prepd. from (I) are smooth and glossy, are well tolerated by sensitive skins, spread readily over skin, and not sticky. 21.12.78 as 049482(6pp478)

YAMA- ★ D21 51395B/28 ★J5 4067-039
Hair colouring cosmetic compsn. - including a copolymer of N,N-di:methylamino-ethyl methacrylate modified by mono:chloro-acetic acid amine salt with (meth)acrylic acid ester
YAMAHATSU SANGYO KK 07.11.77-JA-133944
A96 (A14) (30.05.79) A61k-07/18

Cosmetic compsn. for colouring hair comprises 1 pt.wt. of copolymer of N,N-dimethylaminoethyl methacrylate (I) modified with monochloro acetic acid amine salt with methacrylic acid ester and/or acrylic acid ester and 0.01-0.06 pts. wt. of acid dyestuff, which are dissolved in a solvent, the total amt. of the copolymer and the dyestuff being 0.5-20 wt.% wrt solvent.

Amt. of (I) in the copolymer is 50-80%, pref. Ca 68 wt.%. The acid dyestuff is conventional. Solvent may be ethanol propanol, etc. Other additives may be added e.g. carbon black, plasticiser, water repellant, antiseptics, pH regulator, perfume, wetting agent, etc. 7.11.77. as 133944 (8pp22)

AJIN ★ D21 51396B/28 ★J5 4067-040
Tooth-paste compsn. with excellent cleaning power - contains N-acyl glutamic acid salt as foaming agent and e.g. spirit oil of globe amaranth
AJINOMOTO KK (LIOC) 07.11.77-JA-133300
E12 (30.05.79) A61k-07/26

Composition comprises N-long chained acyl glutamic acid salt as foaming agent, spirantol or its isomer or spirit oil of globe amaranth. The composition is useful as toothpaste, and has high cleaning effect and good flavour and taste without damaging mouth mucosa.

The N-long chained acyl glutamic acid salt is of formula

$$M'OOC-CH_2-CH_2-\underset{\displaystyle RCO-NH}{\underset{|}{CH}}-COOM^2$$

M^1 and M^2 are each alkali metal or H, RCO is mixed fatty acid residue containing 65 to 85 pts. of unsatd. fatty acid such as oleic acid and 35-15 pts. of a mixt. of 1-3 pts. of palm oil fatty acid and 9-7 pts. of hydrogenated tallow fatty acid). The amt. of the N-acyl glutamic acid salt used is 0.1-5 wt.% relative to the total amt. of the compsn. 7.11.77. as 133300 (7pp22)

HITK ★ D21 51437B/28 ★J5 4067-516
Low m.pt magnetic alloy, used e.g. as a dental compsn. - contains cobalt, nickel, and balance palladium, and other components for improving hardness, corrosion resistance, flux density etc.
HITACHI METAL KK 10.11.77-JA-135106
M26 R42 (31.05.79) C22c-05/04 C22c-30 H01f-01/04

The alloy consists by wt. of 20-35% Co, 20-40% Ni and the balance mainly Pd. The m.pt. is <1350°C, pref. <1300°C. The alloy has good corrosion resistance, a satd. magnetic flux density > 2000 G, and is suitable as a dental cpd. The Co serves to lower the m. pt. and provide corrosion resistance. The Ni improves the porcelain gripping performance.

The alloy pref. also contains Mn, Zn, Sn to improve hardness, Pt, Au, Ag for corrosion resistance, Nb, Ti, V, Si, Mg as deoxidising agent or Mo, W, Ta, for hardness, Cr for corrosion resistance, Fe for magnetic flux density or Cu for hardness. 10.11.77. as 135106 (3pp53)

OREA D21 05010V/03 = J7 9015-705
Anti-inflammatory polymers - with prolonged activity and lowered side effects
L'OREAL SA 29.06.72-LU-065622 (29.06.72-LU-065621)
*A96 B04 (16.06.79) *NL7309-151 A61k-31/74 C08f-08/14*

The polymers contain on the main chain as side chains, carboxylic function-contg. anti-inflammatory molecules, covalently bonded to the main chain, the polymers having a mol. wt. of 2000-1,000,000. 29.6.73 as 073003 (clg. 29.6.72(2)-LU-065621/2) C08f-8/14; A61k-31/74 (16.6.79) OREAL S.A. (31pp) (J4 9058195)

MOST= ★ D21 52099B/28 ★SU -624-622
Two-layer enamel for artificial dentures - prepd. from mixt. using specified oxide(s) and fluorine content to improve strength
MOSC STOMATOLOGY 11.07.75-SU-155775
L02 P32 (08.08.78) A61c-09

The strong hard wearing enamel is obtd. by applying two coatings to base.

The inner, opaque coating contains (in wt.%): SiO_2 57.88-61.0, Al_2O_3 13.02-14.73, K_2O 11.54-14.52, Na_2O 4.08-5.44 and additional Fe_2O_3 0.03-0.05, B_2O_3 5.4-7.68, CaO 0.17-0.25, MgO 0.09-0.11 and ZnO 1.0-3.0. The outer, transparent layer contg. (in wt.%): SiO_2 52.86-56.9, Al_2O_3 12.5-14.58, K_2O 12.0-14.18, Na_2O 5.03-7.43 and additional Fe_2O_3 0.03-0.05, B_2O_3 9.44-10.48, CaO 0.2-0.26, MgO 0.1-0.12 and F_2 1.3-2.54.

Kurlyandskii, V.Yu., Vydrik, G.A., Anisimova, S.V. et al. Bul. 35/25.9.78. 11.7.75 as 155775 (2pp124)

MOST= ★ D21 52100B/28 ★SU -624-623
Two-layer enamel for artificial dentures - with each layer contg. additional specified oxide s) and fluorine to increase strength
MOSC STOMATOLOGY 11.07.75-SU-156864
L02 P32 (08.08.78) A61c-09

The inner, opaque layer contains (in wt.%): SiO_2 62.0-66.2, Al_2O_3 14.5-17.4, Na_2O 5.4-6.7, K_2O 9.53-12.47 and additional Fe_2O_3 0.03-0.05, CaO 0.82-1.68, MgO 0.1-0.12, ZrO_2 0.5-1.0 and B_2O_3 0.5-1.0. The outer, transparent layer contains (in wt.%): SiO_2 61.12-64.88, Al_2O_3 14.06-15.1, Na_2O 4.32-7.36, K_2O 10.15-13.85 and additional Fe_2O_3 0.07-0.08, CaO 2.3-2.74, MgO 0.11-0.13, TiO_2 0.04-0.05 and F_2 0.9-2.72.

Each layer is fired, after the application, in vacuo at 950-1000 °C. The enamel has improved wear-resistance and strength. The use of the above compsn. improves the inter-layer bond strength.

Kurlyandskii, V.Yu., Vydrik, G.A., Anisimova, S.V. et al. Bul. 35/25.9.78. 11.7.75 as 156864 (2pp124)

PROK/ ★ D21 52103B/28 ★SU -624-629
Compsn. for removal of dental calculus - contg. hydrochloric acid, hydroquinone, ascorbic acid and kaolin, used in stomatology
PROKHUNCHOKOV A A 21.08.75-SU-167854
B05 (09.08.78) A61k-05

Compsn. for the removal of dental cadulus comprises (in wt.%): hydrochloric acid 1.7-1.9; hydroquinone 1.0-1.2; ascorbic acid 0.1-0.2 and kaolin the rest. The compsn. has also antiseptic and antiviral activity. It is non-toxic and does not adversely affect the mucous lining of the mouth and hard tooth tissue.

The dental calcified deposits are removed easily 10-15 mm. after the application of the above compsn. which accelerated the dental work. The tooth surface after the removal of the deposits is smooth.

Prokhonchukov, A.A., Myaskovskii, D.G., Simanovskaya, E.Yu. Bul. 35/25.9.78. 21.8.75 as 167854 (2pp938)

GERN/ ★ D21 52104B/28 ★SU
Fast setting dental cement prepn. - by mixing thermally trea
oxide powder with silicone additive, drying and impregnat
polyacrylic acid soln.
GERNER M M 23.06.75-SU-147176
*A96 (A14 A26) (08.08.78) A61k-05/**

Dental cement for fast tooth cavity filling is prepd.
-ing deactivated and thermally treated zinc oxide po
with aq. soln. of polyacrylic acid. The hardening o
cement is accelerated if the mixt. is additionally tr
with silicone additive and dried at 130-140 °C prior
impregnation with the polyacrylic acid soln.

The thermal treatment of ZnO is at 1000-1300 °C
35-50% aq. soln. of polyacrylic acid is used for the
pregnation. The oxide:acid wt. ratio is 0.5-4:1 (pr
3:1). The 1.5-2.0% aq. soln. of silicone additive (
amino-propyl-triethoxy-silane) is used in amts. of
0.75 wt.%. The drying period is 20-30 min. It fixe
size on the zinc oxide surface. The cement compsn
in 15 min.

Gerner, M.M., Pashinin, B.P., Vlasova, N.K. et
Bul. 35/25.9.78. 23.6.75 as 147176 (2pp938)

ALMA- ★ D21 52387B/28 ★US 41
Forming and containerising a multiphase cosmetic compsn.
a dispensing head and stirring device moved upwardly
rotating skewed container
ALMAY INC 28.03.77-US-781590
Q31 (26.06.79) B65b-03/04

A multiphase cosmetic compsn. is formed from cre
and gel phase compsns. which are directed to a disp
ing head and dispensed simultaneously into a contain
The major axis of the container is angled and skewe
ative to the dispensing head during the dispensing op
ion and the container is rotated.

The dispensing head is moved upwardly during th
dispensing so that the container is filled from the bo
to the top and a generally swirl configuration exists
ughout the filled container. The container is rotated
out at least one stirring rod disposed about the dispe
head during the dispensing operation.

The dispensed cosmetic compsn. assumes a marb
like configuration and appearance throughout the con
with the respective phases disposed in side-by-side,
ble, visually distinct relationship. The compsn. is p
ing in appearance. 28.3.77 as 781590 (8pp1044)

HUBE D21 19654A/11 = US 41
Fluoride tooth:paste compsn. suitable for unlined aluminium
contg. alkaline earth metal additive to inhibit corrosion
HUBER J M CORP 24.08.77-US-826901 (15.09.76-US-72334
*B06 M14 + Q32 Q34 (26.06.79) *BE-858-528 A61k-07/18*
85/14 + B65d-81/24

Unlined Al tubes contg. a toothpaste compsn. are cla
The compsn. comprises a fluoride therapeutic agent,
solid phase, a liq. phase and 0.005-0.2 wt.% of a flu
corrosion and staining preventing alkaline earth meta
ch is provided as the reaction prod. of a water-solub
kaline earth metal salt with amorphous silica.

Pref. the alkaline earth metal is Ca (esp.), Mg an
Sr. 24.8.77 as 826901(9pp992)

GENM ★ D21 52462B/28 ★US 41
Plaque-inhibiting chewing gum - contg. di (2-ethylhexyl)su
succinate salt and plaque-inhibiting flavour oil
GENERAL MILLS INC 28.11.77-US-855534
(26.06.79) A61k-07/16 A61k-09/68

Chewing gum contains 0.001-15 wt.% of a di(2-ethylh
sulphosuccinate salt, 0.05-10 wt.% of a plaque inhibi
flavour, which is ≥ 1 of cinnamon oil, peppermint oil
spearmint oil, and 10-95 wt.% of gum base.

A typical compsn. comprises 25% gum base, 10%
tol, 2% $NaHCO_3$, 35% sorbitol, 15% Sorbo(RTM), 5%
cium phosphate dihydrate, 5% mannitol, 0.5% glyceri
0.8% cinnamon oil, 0.8% sodium di(2-ethylhexyl)sulp
uccinate, balance colouring. 28.11.77 as 855534(7pp

D21 52463B/28 ★US 4159-316
nerating dentifrice - contg. anhydrous zeolite in base of
ne glycol thickened with hydroxypropyl cellulose
ATE PALMOLIVE CO 06.03.78-US-884292
A11) *(26.06.79) A61k-07.'16*

e anhydrous dentifrice which releases heat in the
contains 20-50 wt.% finely divided anhydrous zeol-
ing an appreciable heat of hydration which is the
major polishing agent, 0,1-5 wt.% of flavouring,
-75 wt.% of anhydrous liq. vehicle, consisting of
ene glycol gelled with hydroxypropyl cellulose of
t. 60000-1000000.

compsn. does not evolve gas and keeps its consis-
during storage. 6.3.78 as 884292(9pp955)

D21 64984V/37 =US 4159-317
and tooth-cleansing agents - contg. fructan-degrading
e to inhibit dental plaque formation
NKYO KK 26.02.73-JA-022842
*(26.06.79) *DT2408-997 A61k-07/28 +A61k-37/48*

nting alveoler pyorrhea compr ises applying to gingi-
acque and periodontal disease causing Ackinomyles
sus, a fructan degrading enzyme contg. compsn. or-
ing from a mould belonging to genus Aspergillus,
rium, Humicola, Penicillium, Talaromyces, Euperi-
m, Sporotorichum, Chateomium, Gelasinosporo or
ybotrys, or bacteria belonging to genus Arthrobacter,
tomyces, Streptococcus or Actinomyces, at a rate of
activity units per g or 2 ml of the compsn.

ne Actinomyces fungus set free is then washed out of
nterdenal spaces and oral cavity. Pref. the material
laromyces flavus var. flavus, Eupenicillium Javan-
or Chaetomium subspirale. 28.11.77 as 855317
.74, 5.5.75, 23.2.76-US-440295, 574375, 660016)
964)

RUBH ★ D21 52464B/28 ★US 4159-318
Oil-free make/up contg. inorganic pigments - in aq. vehicle thickened with clay and hydroxyethyl cellulose
RUBENSTEIN, HELENA INC 13.07.77-US-815306
(26.06.79) A61k-07/02

A stable oil-free make-up compsn. contains 0.1-1.25 wt.% hydrous Mg Al silicate a bactericidal preservative, a chelating agent, 0.1 wt.% allantoin, 0.30 wt.% triethanolamine 0.5-5.0 wt.% ethoxylated methyl glucoside, 20.00 wt.% propylene glycol, 0.05 wt.% dioctyl Na sulphosuccinate, 0.3-1.45 wt.% hydroxyethyl cellulose 0.05-2.5 wt.% Na polynaphthalene sulphonate, water insoluble pigment, (esp. an iron oxide), 0.05 wt.% perfume, 0.01 wt.% camphor, 0.01 wt.% menthol, balance water.

The compsn, is emollient and lubricating, but free of oil, and is not prone to colour streaking. 13.7.77 as 815306(3pp955)

FRYS/ ★ D21 B/28 ★ZA 7802-334
Dentifrice compsn. - contains water soluble disclosing agent or dye visually indicating plaque on teeth
DR FRYSH H 24.04.78-ZA-002334
(04.05.79) A61k

Dentifrice compsn. comprises a mixt. of a suitable dentifrice paste and an acceptable, water soluble disclosing agent or dye in a quantity sufficient visually to indicate dental plaque on a user's teeth. The disclosing agent is not lasting, easily removed by rinsing and not capable of providing a persistant distasteful stain to any considerable extent. 24.4.78 as 002334 (13pp)

See Also

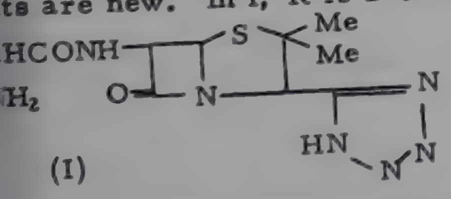
D13 US 4159347
D23 US 4159258
D16 J5 4067092
D23 J5 4070208

D22: BANDAGES; DRESSINGS

O/ ★ D22 B/28 ★CS 7706-293
d-protecting impregnating agent
OMORA F 29.09.77-CS-006293
03 F09 P63 (30.03.79) A01n-09 B27k-03/34

D22 29076W/18 =DS 2449-863
mino-2,2-dimethyl-3-(tetrazol-5-yl)-penam derivs. -
bacterials used as feed supplements, therapeutics, disinfectants
intermediates
FIZER INC 12.03.74-US-450435 (17.10.73-US-407097)
*302 C02 E13 (05.07.79) *BE-821-163 A61k-31/43 C07d-499*

5-Tetrazolyl)penam derivs. of formula (I) and their
ts are new. In I, R is 2-thienyl, 3-thienyl or Ph, opt. with Cl, OH, or NH_2 substits., esp. 3-chloro-4-hydroxyphenyl. Pref. cpds. are 6- D-2-amino-2-phenyl- or (4-hydroxyphenyl)acetamido -
2-dimethyl-3-(5-tetrazolyl)penam.



(I)

Prepn. of cpds. (I) and their salts comprises acrylat-
n of the 6-amino deriv. with acids of formula $RCH(NH_2)$
OOH or their reactive functional derivs., followed by
eavage of protective gps. and/or salt formation. The
rods. are useful antibiotics. 17.10.74 as 449863 Div. in
462675(15pp047)

BR- D22 70581X/38 =DS 2507-353
utomatic contact lens cleaning appts - with cleaning liq vibrated
ltrasonically and heated to sterilisation
FIBRA-SONICS INC 20.02.75-DT-507353
*A96 P34 P43 R21 (05.07.79) *DT2507-353 A61l-03 B08b-03/12 G02c-13*

cleaning appts. for contact lenses consists of a lens
nded by a heating pot for

the heating pot as a hollow cylinder. A thermostat in the current supply to the heater cuts out the power to the heater when the cleaning fluid reaches a temp. of 77-93°C. A timer then switches on the ultrasonic oscillator as well as the heater to ensure that the temp. does not drop below the optimum level.

This removes deposits caused by extracted matter from the lachrymal fluid and prevents eye inflammations. 20.2.75 as 507353(10pp39)

BEGH- D22 27116Y/16 =DS 2646-317
Crosslinking cellulose with formaldehyde - by treating aerated paper pulp with a mist of formaldehyde, formic acid and hydrogen chloride, and heating in hot air stream
BEGHIN-SAY SA 20.10.75-FR-031965
*A11 F09 (05.07.79) *BE-847-172 D06m-13/14*

Cellulosic fibres of increased water absorbability are produced by fibrillating and airing the cellulose in a dry state and then spraying the fibres with an aq. soln. contg. 1-6 wt.% HCHO, ⩽ 2 wt.% HCl and ⩽ 12 wt.% formic or acetic acid and then passing the fibres for 1-10 secs. through an air stream at 80-250°C.

The prods. are useful in mfg. diapers, tampons, nonwoven fleeces etc. having a better feel, softness and of improved tear resistance. 14.10.76 as 646317(5pp922)

BURP D22 63164A/35 =DS 2810-978
Proteinaceous material separation from soft contact lens material - using aq. slurry of pancreatin, boric acid and sodium chloride and rinsing
BURTON PARSONS & CO 09.06.77-US-805147
*E36 P43 (E34) (05.07.79) *US4096-870 C11d-07/42*

Cleaning agent in tablet form for removing proteins, liquids, fats etc. from soft contact lenses comprises pancreatin 4X (25-50 mg), NaCl (60-145 mg) and H_3BO_3 (12-25
formed into a slurry with water

into which the lens is dipped for ≥10 mins, after which it is washed with an isotonic, buffered saline soln, to remove the pancreatin.

Treatment does not affect the lens surface so that no eye irritation ensurs on re-insertion. 14.3.78 as 810978 (4pp922)

BOEF ★ D22 51012B/28 ★DT 2758-036

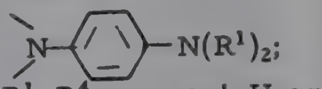
Adsorbent for separating bio-polymers - pref. comprising polymeric carrier with grafted dye gps. with nucleic acid affinity

BOEHRINGER MANNHEIM GMBH 24.12.77-DT-758036

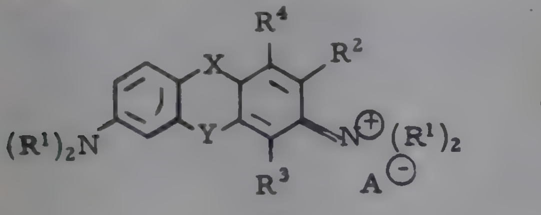
A96 E13 (05.07.79) B01j-01/22 C08f-291 C09b-11/12 C09b-15 C12d-13/06

Adsorbent for affinity-specific sepn. of macromolecular materials, esp. biopolymers, comprises a polymeric carrier to which a gp. with affinity for the bipolymer is covalently bonded, either directly or via a polymeric spacer. Pref. the carrier is a microporous, low compressibility polymer to which ≥2 comonomers are grafted as spacer, one of these monomers having affinity for the biopolymer.

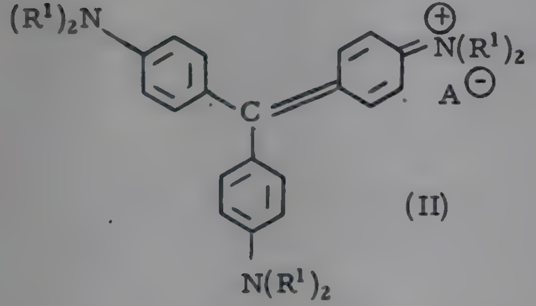
Pref. the polymer carries the residue of a dye of formula (I) or (II) as a base- and/or structure-specific complex former for nucleic acids, (where X is CH or N; Y is O, S, NH or



R^1-R^4 are each H or Me; A^- is an anion, e.g. chloride, perchlorate or oxalate) or the residue of an intercalating dye contg. a polycyclic (e.g. 2-4 ring) planar condensed ring system opt. contg. heteroatoms e.g. N, O or S.



(I)



The absorbents can be used for chromatographic sepn. of mixts. of single-strand, double-strand, supercoiled and/or linear nucleic acids esp. DNS in gene technology. They have higher capacity than known adsorbents, are cheaper and allow quicker sepn. 24.12.77 as 758036 (52pp941)

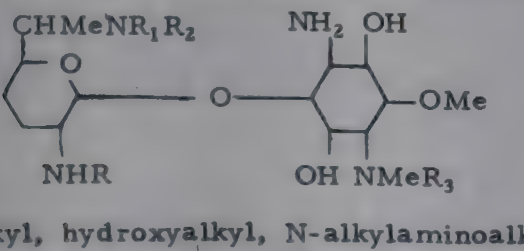
ABBO ★ D22 51124B/28 ★DT 2855-066

2'-N-acyl or alkyl fortimicin A and B derivs. - used as antibacterials active against Gram positive and negative bacteria

ABBOTT LABORATORIES 21.12.77-US-863008

B03 C02 E13 (05.07.79) A61k-31/35 C07h-15/22

Fortimycin derivs. of formula (I) and their pharmaceutically acceptable salts are new: (R is acyl, aminoacyl, N-alkylaminoacyl, N, N-dialkylaminoacyl, hydroxy-substd. aminoacyl, an aminoacid residue, alkyl, aminoalkyl, hydroxyalkyl, N-alkylaminoalkyl, N, N-dialkylaminoalkyl, aminohydroxyalkyl, N-alkylaminohydroxyalkyl or N, N-dialkylaminohydroxyalkyl; R_1 is alkyl; R_2 is H or alkyl; R_3 is H or as R: all alkyl gps. are lower, i.e. 1-6C).



(I)

(I) are antibiotics which are active against various Gram positive and Gram negative bacteria orally or parenterally at daily doses of 1-100 mg/kg. They can also be used as preservatives for industrial solns., in antibacterial cleaning solns. for laboratory benches, etc. and no intermediates for other antibacterial fortimycin B derivs. Fluorosilicate salts of (I) are moth-proofing agents and thiocyanate salts of (I) can be condensed with HCHO to give resinous materials useful as inhibitors. 20.12.78 as 855066 (36pp941)

KYOW ★ D22 51129B/28 ★DT 2

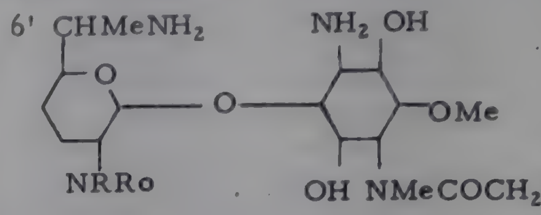
2'-N-Substd. fortimicin A derivs. - used as broad s

antibacterial agents

KYOWA HAKKO KOGYO 21.12.77-JA-153001

B03 C02 E13 (05.07.79) A61k-31/35 C07h-15/22

Fortimycin derivs. of formula (I) and their acid add salts are new.



(I)

In (I) Ro or NRRo is substd. 2-p lidonyl the ituents bein 2 OH or NH in the 3- or position; R i COR_1, $CH_2R_1^1$, $CH(R_1^1)_2$ or amidino; R_1 is NH_2, hydroxy inoalkyl or carbamoylaminoalkyl; R_1^1 is diaminoalkyl roxyalkyl, dihydroxyalkyl, hydroxyaminoalkyl or gua noalkyl.

(I) are broad-spectrum antibacterial agents with h activity against various pathogenic germs, including istant strains. They can be used medicinally or as d fectants. They have higher activity than fortimycin have esp. high activity against fortimycin A-resistan strains; e.g. MIC is usually 3.12-12.5 µg/ml agains coli KY 8348 (forming gentamycin acetyltransferase c.f. > 100 µg/ml for fortimycin A. 21.12.78 as 855 (60pp941)

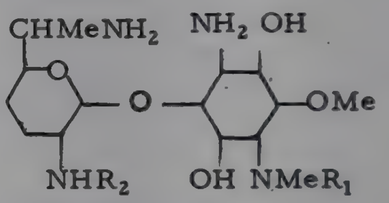
KYOW ★ D22 51130B/28 ★DT 28

4,2'-Di:acyl or alkyl fortimicin B derivs. - used as broad-spe antibacterial agents

KYOWA HAKKO KOGYO 21.12.77-JA-153002

B03 C02 E13 (05.07.79) A61k-31/35 C07h-15/22

Fortimycin derivs. of formula (I) and their salts are



(I)

In (I) R_1 is COR_3 o CH_2R_3; R_2 is COR_4 or R_4; R_3 and R_4 are ea aminoalkyl, hydroxy carbamoylaminoalky aminohydroxyalkyl.

(I) are broad-spec antibacterial agents high activity against various pathogenic germs, inclu resistant strains. They can be used medicinally or a tiseptics. They have higher activity than fortimycin have good stability under strongly alkaline conditions. 21.12.78 as 855350 (56pp941)

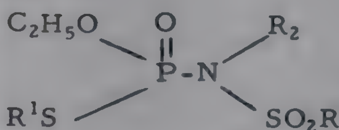
NITN D22 23603A/13 =GB 154

(N)-Sulphonyl phosphoric acid ester amide derivs. - h insecticide, acaricide and nematocide activity and used in protection, hygiene and preservatives (BE 20.3.78)

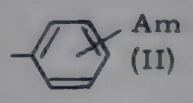
NIHON TOKUSHU NOYAK 20.09.76-JA-111746

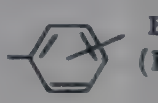
*B05 C01 (11.07.79) *DT2741-086 A01n-09/36 C07f-09/24*

New thiophosphoric acid amide esters are of formula



(I)





(where R^1 is n- or sec-butyl; R^2 is 1-6Calkyl, 2-6C a or (II); A is halogen or 1-6C alkyl; m = 0-2; R^3 is opt. halogen-substd. alkyl, or aralkyl or (III); B is haloge 1-6C alkyl or nitro; and k = 0-2).

(I) are insecticides and acaricides. 14.9.77 as 038 (– pp976)

KEMA ★ D22 51266B/28 ★GB 201

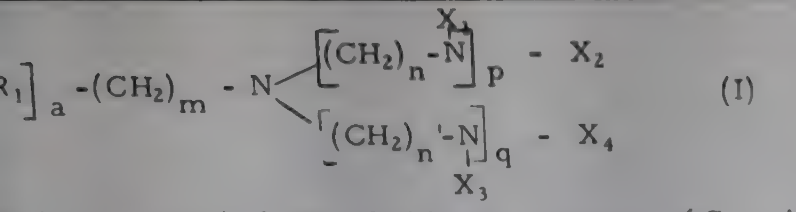
Sulphite on bi:sulphite cpds. contg. hydrophobic gps. - are use corrosion inhibiting and oxygen scavenging agents for met contact with corrosive liquids

KEMANOBEL AB 16.11.78-GB-044783 (16.11.77-SW-012955

E19 M14 (11.07.79) C07c-93/04 C23f-11/14

Sulphite or Bi:sulphite cpds. contg. hydrophobic gps. useful as corrosion inhibiting and oxygen scavenging a for metals in contact with corrosive liquids.

Sulphites or bisulphites of an an amine of formula

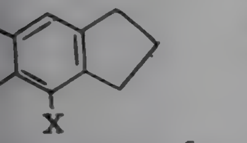


(I)

R is an organic hydrophobic gp. contg. 6C, a is X_1, X_2, X_3 and X_4 can be H, 1-4C alkyl or $(R^1 - 0)yH$ y is 1-10, p. is 0-2 and q is 0 or 1, however when p = 2. m is 0 or 1, n and n^1 are 2-10, and each R_1 is e-, propylene-, or isopropylene)
cific cpds. include the (bi)sulphites of 3-octoxy prope and N-(3-octoxy propyl)-propylene diamine.
npared to prior art. sulphites, the present cpd. can nulated as liq. prods. having a substantially higher f the active ingredient. The cpds. may also be used tericides. 16.11.78 as 044783(6pp)

★ D22 51271B/28 ★GB 2011-399
-5-indanol cpds. - useful broad spectrum antibacterial fungicides, and antiviral agents
BURY SCHWEPPES LTD 20.12.78-GB-049282 (14.11.77-GB-346)
(11.07.79) A61k-31/04 C07c-35/32 C07c-43/18 C07c-47/42 c-69/12

yl-5-indanols (I) are new:



(Where R=H, alkyl, aryl, aralkyl; X=H or halogen, provided not both R and X are H).

(I) are active against a wide range of Gram +ve and Gram -ve bacteria, lso posses fungicidal, sporistatic, and viricidal act-. In partic., (I) are useful in disinfectant compsns. ifically claimed is (I; X=Cl, R=H or Et), and (I; x=H Me, Et, Pr, Bu, C_5H_{11}, and Ph). 20.12.78 as 049282 478)

★ D22 51496B/28 ★J5 4068-097
rambotic material for medical articles - comprises olefin or polymer with surface layer of e.g. urokinase or streptokinase
NITIKA KK 09.11.77-JA-135018
96 B07 P34 (A12 A17) (31.05.79) A61l-17 A61m-01/03 A61m-

material comprises a base of polymer of olefin or e, and a surface layer of fibrin-dissolving material, as urokinase or streptokinase, formed on the sur- of the base. Material is used for artificial kidneys, ficial hearts, artificial blood vessels and catheters. material dissolves fibrin effectively. Fibrinogen is verted into the fibrin to form a thrombosis.

an example, a polypropylene film was exposed in an nonia gas plasma to induce amino radicals at the face of the film. The film was washed with an acetone n. and dried. The film was then immersed in a phylogical salt soln. of urokinase for 24 hrs. at 7°C to m a urokinase layer on the film. The sheet obtd. dissles a fibrin film. 9.11.77. as 135018 (5pp64)

A ★ D22 51595B/28 ★J5 4068-776
orber for removing malodorous gas components - in which orption of gas and regeneration of fibrous activated charcoal be effected continuously
UNITIKA KK 11.11.77-JA-135891
J01 (02.06.79) B01d-53/04

cylindrical fibrous activated charcoal adsorbent is cured to the adsorber body which is divided by a partin into an adsorbing zone and a reclaiming zone. Upper d lower discs are disposed in the upper and lower ends the adsorbent to insulate mutually gases passed through adsorbing zone and the reclaiming zone.

The adsorbing zone and the reclaiming zone are turned out the driving shaft by rotating the driving shaft to rry out continuously the adsorbing and reclaiming work. he bad smell gas is introduced from an inlet into the dy and passed through the adsorbing zone to be discharded as a clean gas from an outlet. The reclaiming gas is troduced from an inlet and passed through the reclaimg zone to be discharged as the gas contg. conc. bad ll components from an outlet.

of adsorbent may be continuously carried out in the same adsorber body. 11.11.77: as 135891 (3pp35)

STER= ★ D22 51887B/28 ★J5 4070-209
Gaseous formaldehyde recovery from aq. soln. - by extn. with alcohol, azeotropically rectifying the extract soln. with a hydrocarbon, and heating the prod.
STERLITAMAK PETROCH 23.11.77-BR-007788 (12.11.77-JA-136143)
A41 E17 (05.06.79) C07c-45/24 C07c-47/04

The aq. soln. is extracted with an alcohol to give an extract soln. and a raffinate soln. The extract soln. is treated by azeotropic rectification step in the presence of 4-6C hydrocarbon, e.g. pentane, isopentane or hexane to remove water. The resulting prod. is heated to the b.pt. of alcohol to give off gaseous formaldehyde.

The formaldehyde is used for producing dyes or synthetic resins, and as a sterilising agent. 12.11.77. as 136143 (8pp15)

SAOO ★ D22 51893B/28 ★J5 4070-228
Stabilisation of fungicidal bis tri:alkyl tin oxide - by addn. of oxy:fatty acid ester
SANKYO ORGANIC CHEM KK 09.11.77-JA-133631
A60 C01 E12 (05.06.79) C07f-07/22

An oxyfatty acid ester is added to the bis-trialkyl tin oxide of formula (I): $(R_3Sn)_2O$ (where Ris 1-6C alkyl). (I) shows excellent fungicidal effect and has been used as antiseptics for paper, leather, paint and plastics and as agricultural fungicide and antiseptics for wood. (I) is obtained by alkali hydrolysis of trialkyl tin halide but is unstable, and is decomposed during storage when exposed to light or UV rays. The present method stabilises the active component (I) for a long period of time.

Examples of (I) are bis-trimethyl tin oxide, bis-triethyl oxide, bis-tri-n-propyl tin oxide, bis-tri-n-hexyl tin oxide, etc. Oxyfatty acid esters include, e.g., methyl glycolate, ethyl glycolate, propyl glycolate, butyl glycolate, hexyl glycolate, octyl glycolate, methyl lactate, ethyl lactate, butyl lactate, hexyl lactate, methyl glycerate, ethyl glycerate, butyl glycerate, octyl glycerate, dimethyl malate, diethyl malate, trimethyl citrate, triethyl citrate, etc. The addn. amt. is 0.1-5.0% of (I). 9.11.77. as 133631 (4pp108)

KHME= ★ D22 52102B/28 ★SU -624-625
Acrylic and fluorinated rubber copolymer for denture mfr. - contg. luminophore, benzoyl peroxide and pigment in solid phase and methyl-methacrylate and hydroquinone liquid phase
KHARK MED PLAS WKS 11.07.75-SU-168182
A96 P32 (A14) (08.08.78) A61c-09

Material used in orthopaedic stomatology is based on methylmethacrylate/fluoro-rubber suspn. copolymer is made stronger by incorporation of luminophore, benzoyl peroxide and pigments into the solid phase and methylmethacrylate and hydroquinone as the liquid phase. The ratio powder: liquid phase is 1:0.5.

The solid phase comprises (wt.%): luminophore 0.001-0.1; benzoyl peroxide 0.2-0.3; pigment 0.1-0.2; above copolymer to 100. The liquid phase contains (wt.%): hydroquinone 0.002-0.006; methylmethacrylate to 100. The phases are mixed prior to use.
Isemini I.Ya., Butovskii V.N., Voskresenskaya I.B. et al
Bul. 35/25.9.78 11.7.75 as 168182 (2pp114)

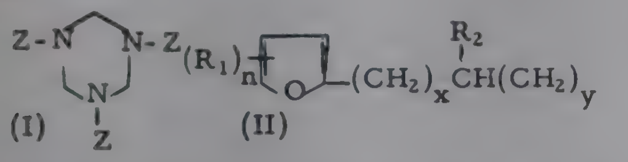
EPAR- D22 04679A/03 =US 4159-008
Granular sanitary material for cat's tray - based on absorptive, expanded mineral material, esp. exfoliated phlogopite mica
EPARCO 06.07.76-FR-020587
*P14 (26.06.79) *DT2728-860 +A01k-29*

An animal litter prod. is prepd. in the form of granulated solid material having a large grain size, characterised in that it is constituted by an expanded material having a specific wt. of 50-200 g/l.

Material is obtd. by the exfoliation of mica phlogophite in the form of flakes, treated by being subjected to a temp. of 700°C without the addition of foreign bodies to increase its specific vol. by 20-30 times. Material has an absorbent capacity w.r.t. water of 200-350 wt.% and an absorbent capacity w.r.t. ammonia of 30-35 wt.%. litter is esp. used for cats. It is light, does not deteriorate, is aseptic, non-harmful (non-toxic, non-corrosive) easily absorbs urine, is able to retain unpleasant odours, is chemically inert w.r.t. urine or excrement, or not chemically react with the same. 6.7.77 as 813233(2pp931)

MERI ★ D22 52432B/28 ★US 4159-253
Metal-working fluid contg. antimicrobial hexa:hydro-triazine deriv. - which protects the fluid against fungal and bacterial attack
MERCK & CO INC 22.05.78-US-908173 (01.08.77-US-820506)
C02 E13 H07 (D15) (26.06.79) C10m-01/32

Metal-working fluid comprises 50-95 wt.% of a petroleum hydrocarbon oil and 0.1-50 wt.% of a hexahydrotriazine deriv. of formula (I) in which each Z is a gp. of formula (II).

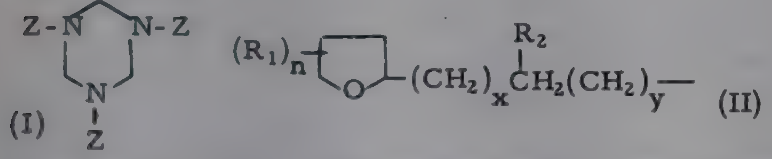

(I) (II)

In (I), R_1 is H, 1-8C (Hydroxy)alkyl, 1-8C alkoxyloweralkyl, phenyl lower alkyl, phenyl or phenyl mono-substd. with nitro or mono-, di- or trisubstd. with halogen, lower alkyl or lower alkoxy; n is 1, 2 or 3. R_2 is H, 1-8C alkyl, phenyl lower alkyl, halophenyl, nitrophenyl or phenyl; x and y are each integers of 0-4 and (x + y) = 0-4, provided that when (x+y)=0, R_2 is other than H.

(I) protects the metal-working fluid against fungal and bacterial attack. The Parent Patent claimed cpds. (I). 22.5.78 as 908173 Div.ex 4125719(6pp927)

MERI ★ D22 52433B/28 ★US 4159-254
Metal-working fluid contg. antimicrobial hexa:hydro-triazine deriv. - which protects the fluid against fungal and bacterial attack
MERCK & CO INC 22.05.78-US-908177 (11.05.77-US-795674)
C02 E13 H07 (D15) (26.06.79) C10m-01/32

Metal-working fluid comprises 50-95 wt.% of a petroleum hydrocarbon oil and 0.1-50 wt.% of a hexahydro-triazine deriv. of formula (I) in which each Z is a gp. of formula (II).


(I) (II)

In (II) R_1 is H, 1-8C (hydroxy)alkyl, 1-8C alkoxy lower alkyl, phenyl lower alkyl, phenyl or phenyl substd. with halogen, nitro, lower alkyl or lower alkoxy; n is 1, 2 or 3. R_2 is H, 1-8C alkyl, phenyl lower alkyl or phenyl; x and y are each integers of 0-4 and (x+y) = 0-4.

(I) protects the metal-working fluid against fungal and bacterial attack. The Parent Patent claimed cpds. (I). 22.5.78 as 908177 Div.ex 4119779 (6pp927)

HENK D22 01981B/02 =US 4159-260
Hydrolysed grafted starch-polyacrylonitrile copolymer mixture - contg. quaternary ammonium chloride to improve water absorption
HENKEL KG AUF AKTIEN (GENM) 23.11.77-US-854294
*A11 E16 +P14 (A14 A96) (26.06.79) *BE-870-121 C08l-03*

A blend is prepd. comprising hydrolysed polyacrylonitrile-starch graft copolymer and 2.5-20 wt.% of 18C fatt ammonium chloride of formula $R_1R_2R_3R_4N^+Cl^-$, wh R_2, R_3 and R_4 are H or alkyl, such that there is ≥ 1 radical in the molecule.

Pref. the fatty quat. ammonium chloride is di(hy nated tallow) dimethyl-, tallow trimethyl-, dicoco yl-, monococo trimethyl-, or tricapryl methyl amn chloride. Pref. 10-20 wt.% of fatty quat. ammoniur ride is used w.r.t. copolymer.

Blend prepd. shows good wicking and dispersing ties. Used on absorbents for diapers, feminine hyg pkins or tampons, bandages, etc. 23.11.77 as 8542

UYFL- D22 78321A/44 =US 4
Metal-coated biologically active glass - used to make implant useful in orthopaedics and dentistry
UNIV FLORIDA 19.05.77-US-798671
*L01 M13 P33 +P32 P42 (26.06.79) *BE-866-323 B05d-03*

Bioglass layer is bonded to a metal substrate by (1) substrate having oxidised roughened surface to max. (T_1) such that total vol. expansion of metal is equal of bioglass at temp. (Ts) where temp. dependence o of glass becomes non-linear; (2) providing molten g temp. (Tw) sufficiently high to permit immersion of heated to T_1; (3) immersing metal surface in the gla time such that metal surface temp. does not rise ab (4) withdrawing and cooling coating rapidly from Tw thus rapidly relieving themo-mechanical stress in g and (5) further cooling below Ts, so that thermol me al stresses in the coating and substrate are relieved equal rate due to linear thermal expansion.

Method is useful in construction of prosthesis and opedic and dental devices. 19.5.77 as 798671 (7pp96

FRTI- ★ · D22 B/28 ★ZA 77
Wood treatment - by applying to smoothed surface a prese comprising an insecticide, a fungicide and a water repelle dipping in protective paint
FRENCH TIMBER INDS 07.10.77-ZA-006023
C03 F09 P63 (09.04.79) B27k

Method comprises applying to a smoothed surface of ber having a moisture content of 8-20% by mass, a p vative comprising a solvent contg. an insecticide, a cide and a water repellent, and dipping the timber in protective paint. 7.10.77 as 006023 (10pp)

TUCK/ ★ D22 B/28 ★ZA 78
Pliant splint - has a support of sheet material with fasteners one edge
TUCKER C N 06.04.78-ZA-001975
P32 (03.05.79) A61f

A pliant splint includes a support of sheet material a -ening means provided at least along one edge of the ort. 6.4.78 as 001975 (11pp)

See Also

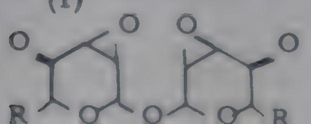
D15 DS 1667879

D23: OILS; FATS; WAXES

SAKB D23 72549Y/41 =DS 2727-044
Bis-epoxy-tetrahydropyranone ethers - useful as bactericides, fungicides and intermediates for hydroxy-pyranones
OTSUKA KAGAKU YAKUHIN 15.06.76-JA-070819
*B03 C02 E13 +P34 (05.07.79) *BE-855-649 C07d-407*

2,2'-Bis(3,4-epoxy-5-oxotetrahydropyranyl) ethers of formula I are new. In I, R is H or (un)branched 1-6C alkyl.

(I)

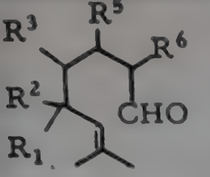


Prepn. of ethers I comprises epoxidation of corresp. 2,2'-bis(5-oxo-5,6-dihydro-2H-pyranyl) ethers using peroxides in the presence of an alkaline catalyst.

The prods. are used as ba icides and fungicides. 15.6.77 as 727044(4pp047)

RHON ★ D23 51196B/28 ★FR 240
Semi hydrogenation of citral and alkyl derivs - using palla catalyst and specified amt. of heterocyclic base
RHONE-POULENC INDUSTRIES 05.10.77-FR-030629
E17 (08.06.79) A61k-07/46 C07c-47/20

Prepn. of cpds. of formula (where R_1-R_4 and R_6 are H



1-5C alkyl and R_5 is 1-5C alkyl) comprises hydrogenating the corresp. αβ ethylenically unsaturated adehyde in the absence of water and in the presence of a Pd based catalyst and at least 10% based on the diene aldeh- pyridine, quinoline or 8-hydroxy-quinoline.

starting diene aldehyde is pref. citral to prepare ellal. An inert third solvent is pref. used and the on temp is 10-60°C. The amt. of Pd is pref. 0.0005 r 100 g dienealdehyde.

products can be used directly in perfume compsn intermediates for preparing other cpds. The above es yields of ⩾95% and with a yield of the undesirable inethyloctanal < 1%, pref. <0.1%. 5.10.77 as 9 (9pp597)

★ D23 51886B/28 ★J5 4070-208

n-1-ol geometric isomers prepn. - for use as perfuming and ring agents in cosmetics, foodstuffs, medicines, etc.

SEGAWA KK 11.11.77-JA-134707

E17 (B05 D13 D21) (05.06.79) A61k-07/46 C07c-33/02 C07c- '07

etrically isomeric 6-octen-1-ols (I) $CH_3CH_2\sim CH=CH$ $H_2)_3CH_2OR''$ are prepd. by contacting 5-octen-1-ol $CH_3CH_2\sim CH=CH\sim(CH_2)_3CH_2OH$ with carboxylic its anhydride or acid halide (III) $(R'CO)_nX$ in the ence or absence of catalyst.(where R'=H, 1-5C alkyl 5C alkenyl; X=OH, halogen, or oxygen, but when I or halogen, n=1; and when X=oxygen, n=2; R''= R'). Cis isomer is prepd. by hydrogenating 5-octyn-

) are useful as long-acting perfumes, flavours, or lators in drinks, cold cakes, foodstuffs, cosmetics, tary and health products or medicinal materials. s isomer is known as having trepang odour but cis er is found to have apple flavour. 11.11.77. as '07 (14pp104)

H= ★ D23 52213B/28 ★SU -624-895

for building applications - contg. gypsum binder, sesqui- ne fraction of pine flotation oil and water to increase strength

HUVASH UNIV 01.03.77-SU-458374

02 (11.08.78) C04b-11/09

of the sesquiterpene fraction of flotation pine oil (I) as organic additive increases the strength of the building n.

The latter contains (in wt.%): gypsum binder 72-75, 0.1-0.4 and water the rest.

The fraction (I) represents a mixt. of $C_{15}H_{24}$ hydro- bons contg. 25% of terpenols.

Spiridonov, F.P., Bazylchik, V.V., Illarionov, I.E. et al Bul. 35/25.9.78. 1.3.77 as 458374 (2pp124)

DANI/ ★ D23 52340B/28 ★SU -625-150

Granulometric analysis of foreign body content of liquids - involves thorough purification of cellulose ester filter with aq. acetic acid

DANILOV V M 24.06.75-SU-148861

A88 J04 R16 (A11) (09.08.78) G01n-15

The Foreign body content of liquids e.g. lubricants can be determined by passing the liquid through a porous cellulose ester membrane. Then this filter is cleaned and the particles filtered out are recorded conventionally. Now for greater accuracy, the filter is cleaned fully by using aq. acetic acid at 18-20°C for 1-2 min. Thus the filter is completely translucent to assist counting and measurement.

In the granulometric analysis the particles held by the filter can readily be examined under a microscope. A considerable increase of the fine fraction (0.5-5.0 um) is observed.

Danilov, V.M., Skorobogatova, A.N. Bul. 35/25.9.78. 24.6.75 as 148861 (2pp840)

FIRM D23 02215B/02 =US 4159-258

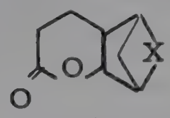
Tri:cyclic norbornane derivs for perfumery use - are prepd. by reacting acrolein and (ethylidene) norbornene, reacting adduct with water and oxidising (NL 19.12.78)

FIRMENICH SA 17.06.77-CH-007449

*E13 (D13 D21) (26.06.79) *DT2826-302 C11b-09*

The odour properties of perfume compsns. or perfume bases are improved by adding a tricyclic deriv. of norbornane of formula (I) (where X is $-\underset{-CH_2}{\underset{|}{C}}H-CH_2-CH_3$, $-\underset{-CH_2}{\underset{|}{C}}=CH-CH_3$ or $-CH_2-CH_2-$), pref. e.g. 3-oxa-9-ethyl-tricyclo 6,2,1, 0^{2-7} undecan-4-one.

The norbornane derivs. can develop extremely varied odour notes, such as green, fruity aromatic notes, reminiscent in certain instances of tonka beans or medicinal decoctions, and may be used for the prepn. of luxury perfumes as well as soaps, detergents, cosmetic prods. or household materials. They may also be used for mfg. artificial flavour compsns. and for aromatising foods and beverages in general. 7.6.78 as 913476 (5pp990)



(I)

D24: SOAP; SOAP DETERGENTS

AK D24 10046V/06 =J7 9015-708

in soaps prepn - from (di) cyclopentadiene and unsatd boxylic acids

ARAKAWA RINSAN CHEM 28.00.72-JA-001051

*A96 (16.06.79) *J48071-494 +C08f-08/12*

thod comprises reacting successively or simultaneously 1 cpd. selected from cyclopentadiene (I), dicyclopenta- ne (II) and derivs. thereof, 1 or ⩾2, α, β-unsatd. car- xylic acid and saponifying a resulting resinous substance ereby providing a narrow mol. wt. distribn. prod. In an example 280 g II contg. 5% codimer of I and isoprene or piperylene, 120 g Me methacrylate, 200 g C_6H_5COOH, and 200 g xylene were heated to 245° in N_2, kept for 30 mins. heated to 260°, and reacted for 3 hrs. to give 404 g. bal- sam-like rosin, showing a single peak by gel-permeation chromatography. The product was saponified by 48% aq. NaOH, treating with xylene to remove impurities, and has a softening p. 83° mol. wt. 280.28. 12.71 as 001051 C08f-8/12 (16.6.79) ARAKAWA RINSAN CHEMICAL IND CO LTD (4pp)(J48071494)

D25: OTHER DETERGENTS

OREA ★ D25 50873B/28 ★BE -873-315

Cosmetic skin cleaning compsn. - oil-in-water emulsion contg. a kaolinite clay

L'OREAL SA 06.01.78-LU-078831

(05.07.79) A61k

The compsn. comprises an oil phase, a water phase, an emulsifying agent and a mineral phase, which consists essentially of a kaolinite clay of particle size $< 60\ \mu$ with $\leqslant 25\%$ of the particles being $\geqslant 2\ \mu$. The clay has a quantz content $< 20\%$ and a thixotropy of $\leqslant 6$.

The compsn. is esp. used for removing make-up. It is non-irritant, leaves a soft and supple sensation, and unlike previous compsn. does leave a feeling of dryness. It is removed by washing. 5.1.79 as 873315 (9pp597)

UNIL ★ D25 50886B/28 ★BE -873-366

Aq. liq. detergent compsn. free from active salt additives - contains mixt. of three specified nonionic surfactants

UNILEVER NV 09.01.78-GB-000656

A97 (A25) (09.07.79) C11d

The compsn. contains 25-45% of a nonionic surfactant mixt. comprising (a) 50-80% of a 16-19C primary satd. alcohol/15-90 mals ethylene oxide condensate; (b) 5-25% of an 8-12C primary satd. alcohol/6-10 mols ethylene oxide condensate and (c) 5-25% of a 10-14C primary satd. alcohol/10-14 mols ethylene oxide condensate. The percentages are based on the sum of (a), (b) and (c).

The compsn. has a good detergent power at low temps. esp. for removing greasy stains, and unlike previously proposed compsns. does not gel or solidify at low temps. and is only slightly foaming. 9.1.76 as 873366 (7pp597)

UNVO D25 04532R/04 =DS 1768-021

Alkylation of benzene with olefin yielding mono alkylate - for detergent production

UOP INC 23.03.67-US-625495

*E14 (05.07.79) *GB1178-952 C07c-03/54 C07c-15/02*

Alkylaromatic hydrocarbons, used for producing easily biologically degradable detergents, are produced by alkylation of benzene with 10-15C n-olefins in the presence of HF in 2 alkylation zones in which the effluent from the first alkylation zone is sepd. into a first catalyst phase (I) and a first alkylaromatic hydrocarbon phase (II), at least part of one recycled and (II) passed to a second alkylation zone and alkylated in the presence of fresh or regenerated HF and from the effluent of which the alkylaromatic hydrocarbon phase recovered.

The first alkylation is carried out at 4-49°C with a dwell time of 5-25 mins. in the presence of $\geqslant 83$ wt.% HF and utilising > 98 wt.% of the olefin feed. The second alkylation is carried out at 27-66°C with a dwell time of 5-25 mins. in the presence of 93-100 wt.% HF, the temp. in this zone being $\geqslant 3.6$°C higher than the first zone. This gives a purer prod. (i.e. only small quantities of tarry impurities are formed in the catalyst phase). 22.3.68 as 768021 (6pp922)

LIOY D25 29126U/21 =DS 2253-896

Surface active agents - purified from non-converted oils by mixing with polyalcohols or polyethers and stripping

LION FAT & OIL KK 05.11.71-JA-087682

*E17 (05.07.79) *DT2253-896 C07c-139/14*

A method for purifying surfactants comprises reacting 0.1-10 times the quantity of the neutralisation prod. of sulp(on)ates (obtd. by sulphonation of 12-22C olefins or paraffins or sulphation of 8-22C monobasic aliphatic alcohols) with glycerin, ethylene glycol, polyethylene glycol, polypropylene glycol, sorbitol and/or polyoxyethylene adducts of 8-20C aliphatic alcohols or of 8-16C alkylphenols and subjecting unreacted oils to thin film distn. at 10-200 °C.

Process may be made continuous, is cheap and results in a colourless, non-odorous prod. 3.11.72 as 253896 (5pp922)

HENK D25 40140V/22 =DS 2

Detergent compsns contg cellulose mixed ethers -
(carboxy)methyl gps, acting as greying inhibitors in w
synthetics

HENKEL KG AUF AKTIEN 16.11.72-DT-256194

*A97 F06 (05.07.79) *DT2256-194 C11d-03/22*

Detergent for textiles contg. synthetic fibres (e.g. p
ster and/or polypropylene fibres) contains, apart fr
$\geqslant 1$ surfactant and > 1 builder, 0.1-10 wt.% of an
li metal salt of a cellulose mixed ether contg. 1.4-2
methyl gps. and 0.05-0.25 carboxymethyl gps. per
droglucose unit as a greying inhibitor. The cellulose
should have a viscosity (as a 2 wt.% aq. soln.) of 10
5000 (1500-3500) cP. The textile may also contain ce
ose fibres. 16.11.72 as 256194 (5pp922)

BENC D25 55162A/31 =DS 27

Granular product for washing and cleaning compsns. - co
alkali metal aluminosilicate and a highly polymerised phosph

BENCKISER J A GMBH 01.04.77-DT-714604

*(05.07.79) *BE-865-572 C02b-01/22 C11d-03/12*

Non-agglomerating free, flowing and abrasion-resist
granular compsn. for detergents, cleaning agents an
water softening contains a polymeric phosphate whos
P_2O_5 contents is 64-69% and an ion-exchanging alumi
licate, pref. in ratio of 1-2:2-1. The granules may
contain Na tripolyphosphate (pref. 20-40 wt.% of the
phate component). 1.4.77 as 714604(6pp922)

BADI D25 87977A/49 =DS 272

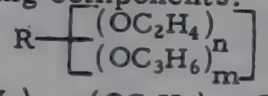
Synergistic low foaming surfactant compsn. - contg. mix
ethylene oxide-propylene oxide copolymer derivs. esp
dishwashers and bottle washers

BASF AG 23.05.77-DT-723139

*A97 E17 (A25 E16) (05.07.79) *DT2723-139 C11d-03/37*

Extremely low foaming detergent compsn. contains th
nergistically-acting components:

a) 50-90 wt.%



$$R-\left[\begin{matrix}(OC_2H_4)_n\\(OC_3H_6)_m\end{matrix}\right]OH$$

and/or

$H(OC_2H_4)_{n'}(OC_3H_6)_{m'}(OC_2H_4)_{n'}OH$ and/or

$[H(OC_2H_4)_{n''}(OC_3H_6)_{m''}]_2N-CH_2CH_2-N[(C_3H_6O)_{m''}(C_2$

(where m = 5.20, n = 5-20, m' = 15-100, n' = 1-20, n''
m'' = 3-40, n'' = 1-15 and R = 8-22C fatty alcohol, the
and PO gps. being random or in blocks) and (b) 10-50
$\geqslant 1$ cpd. of formula $H(OC_3H_6)_y(OC_2H_4)_x-O-CH(CH_3)-C$
$O-CH(CH_3)-CH_2-O(C_2H_4O)_x(C_3H_6O)_yH$ (where x = 5.50 a
= 10-100).

The compsn. has, in addn, improved wetting and cl
ing strength. 23.5.77 as 723139(7pp922)

BENC ★ D25 51004B/28 ★DT 2757

Dish washer operation accelerating soln. of cleaning age
permits usage of cheaper salts normally dissolving more slowly

BENCKISER J A GMBH 24.12.77-DT-757930 (00.00.77-DT-746

P28 (05.07.79) A47l-15/44

The cleaning agent stock tank of a dish washing machin
modified so that the washing agent contg active chlorin
polyphosphates is dissolved more easily. A sieve is fi
the mesh of which is so small that the washing agent in
solid state cannot pass through, and the water level is
ntained above that of the chemical mixt.

Beneath the sieve an inclined plate with passages at
top and bottom edges stimulates circulation of the wate
and the soln. of the chemical agent for dosage into the
hing water.

Caking of the chemicals at the bottom of the stock ta
not only prevented, but the improved speed of soln. ma
it possible to use cheaper sodium instead of potassium
24.12.77 as 757930 Add to 746843 (7pp1045)

D25 75705X/41 =GB 1548-379

cous hypochlorite bleaching product for cleaning - contg
ester surfactant as thickener and other surfactants

GROUP LTD 19.05.75-GB-021323

*+P34 (11.07.79) *BE-841-936 C11d-03/39 +C11d-01/5*
-10/02

ned bleach compsn. comprises an aq. soln. of an metal hypochlorite contg. (a) a sucrose surfactant >1 other hypochlorite-soluble surfactant. Pref. i) a quat. ammonium cpd., (ii) an amine oxide (iii) ne or (iv) an alkanolamide.

high viscosity compsns. adhere longer to vertical clined surfaces e.g. lavatory pans, waste-pipes etc. improved disinfectant effect. 12.5.76 (8pp924)

D25 11131Y/07 =GB 1548-389

etergent for heavy wash, contg. nonionic and anionic ant - using alkylbenzene sulphonate and fatty acid soap in ed ratio as anionic surfactant

CTER & GAMBLE CO 05.09.75-GB-036633 (13.08.75-GB-717)

*(A25) (11.07.79) *BE-845-116 C11d-01/22 C11d-10/04*
11d-09/02

detergent compsn. is prepd. comprising 28-44 wt.% on-ionic surfactant; an anionic surfactant mixt. pre- n amt. sufficient to provide a wt. ratio of nonionic nionic surfactant mixt. in free acid form of 1-2.3:1; 0-45 wt.% if solvent mixt.

nionic surfactant is produced by condensn. of 4-11 s of ethylene oxide with 1 mole of 13-16C alcohol. A ic surfactant mixt. consists of 9-15C alkyl benzene onate, 0.2-5 wt.% w.r.t. detergent compsn. of satd. C fatty acid soap. Cations of the sulphonate and soap nono- or triethanolaime, potassium, sodium or their s. Anionic surfactant mixt. contg. sulphonate and is present in wt. ratio of acid forms of sulphonate to of 3-80:1. Solvent mixt. contains water to 1-5C alco- n wt. ratio >1:1.

ompsn. is prepd. as a heavy duty liq. detergent suit- for home laundering contg. reduced amts. of inorganic ler salts. 13.8.76 (7pp931)

D25 70972X/38 =J7 9015-549

e sodium percarbonate or peroxypyrophosphate bleach psn. - contg. glucose, sorbitol, mannose or arabinose

AO SOAP KK 30.08.73-JA-097461

*97 E19 (15.06.79) *J50057-977 +C11d-07/54*

$CO_3 . 3H_2O_2$ (I) or Na peroxypyrophosphate bleach mixed activator granules contg. glucose, sorbitol mannose rabinose had improved storability. In an example, 70: 0 mixt. of Na acetoxybenzenesulphonate, polyethylene col (mol. wt. 6000), and glucose was granulated to give vator granules. A laundering detergent-bleach of (I) the activator granules 10, Na tripolyphosphaste 20, Na_2SO_4 50% had effective O retention (after 1 month 0° in closed container) 90%, compared with 73.1% for npsn. contg. Mg silicate in place of glucose. 30.8.73 097461 C11d-7/54 (15.6.79) KAO SOAP KK (4pp) 0057977)

TS- D25 32976A/18 =J7 9015-763

grant abstergent compsn. for flush WC - contains low mol. wt. yethylene glycol, anionic and/or nonionic surfactant and high l. wt. polyethylene glycol

KATSURAYA FINE GOOD 04.09.76-JA-105440

*A97 (A25) (18.06.79) *J53031-708 C11d-11 +C11d-10/02*

agrant abstergent compsn. for flush WC contains (a) 0 pts. wt. fragrant abstergent comprising polyethylene ycol (I) mol. 2000-6000 wt., anionic and/or nonionic rfactant (II), and opt. Na thiosulphate, dyes and perfume d (b) 4-7 pts. wt. polyethylene glycol (III) of mol. wt. 000-20000.

Specifically the compsn. is prepd. by mixing (I), (II), II) and opt. Na thiosulphate and fusing at 60-80°C and yes are added during cooling, Perfume is blended at 2-45°C and the mixt. is solidified on cooling. Loss of erfume during prepn. is minimised, and the compsn. has ood high temp. solubility. 4.9.76 as 105440 C11d-10/02, 1/00 (18.6.79) KATSURAYA FINE GOOD (3pp)(J54041708)

DNIN D25 82058Y/46 =J7 9015-873

Surfactant compsn. useful as emulsifier, wetting agent etc. - contains nonionic surfactant and fluoroalkane sulphonate

DAINIPPON INK CHEM KK 01.04.76-JA-035117

*A97 E19 (18.06.79) *J52119-484 C11d-01/83*

The compsn. comprises a fluoroalkane cpd. of formula $C_nF_{2n+1}SO_3M$ (I) (where n = integer of 6-10; M is Li or ammonium of triethanol) and nonionic surfactant. (I) are highly soluble in water at neutral pH, and show increased property of decreasing surface tension when admixed with nonionic surface active agents like polyoxyethylene alkyl ether and polyoxyethylene alkylphenol at a molar ratio of 0.002-0.4 mol. against (I).

In an example. Li perfluorooctane sulphonate was admixed with polyoxyethylene dodecylalcohol to produce an aq. soln. of pH 6.5. The soln. was added in an amt. of 4×10^{-5} and 2×10^{-2} of the nonionic surfactant showed surface tension of < ca. 30 dyne/cm. 1.4.76 as 035117 C11d-1/83 (18.6.79) DAINIPPON INK CHEM KK (3pp)(J52119484)

PROC ★ D25 52443B/28 ★US 4159-277

Zwitterionic surfactant cpds. - with charge centres sepd. by (poly tetra:methylene oxide gps.

PROCTER & GAMBLE CO 22.02.77-US-770489 (02.04.75-US-562307)

A25 C03 E19 (A97 C01) (26.06.79) C07c-141/02 C11d-01/18

New surfactants are of formula $R_1R_2R_3M^+[(CH_2)_4O]_n(CH_2)_4X^-$ (I) (where R_{1-3} are each opt. branched or cyclic alkyl, or alkenyl, or aryl or aralkyl gps., M is N or P, n is 1-20, and X is an anionic gp.).

(I) are zwitterionic surfactants, giving good soil removal even in the absence of builders. The cpds. are also useful as emulsifiers, suspending agents, spreading agents e.g. for herbicides, and in oil recovery and ore flotation. 22.2.77 as 770489 (7pp955)

UNIL ★ D25 52495B/28 ★US 4159-388

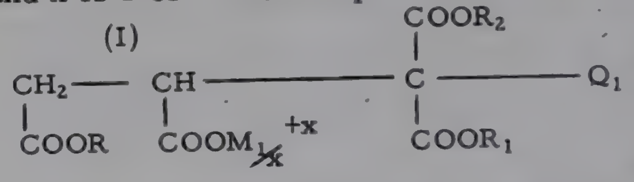
Ester derivs. of 1-halo-1,1,2,3-propane tetra:carboxylic acid - useful as intermediates for metal sequestrants and detergent builders e.g. aconitic acid and its salts

LEVER BROTHERS CO 15.05.78-US-905719 (22.12.75-US-642850)

E17 (E12) (26.06.79) C07c-69/63

New halopropane tetracarboxylic acid derivs. are of formula (I) (where R, R_1, and R^2 are each 1-4C alkyl; Q_1 is Cl or Br; M_1 is H or a Li, Na, K, Mg, Ca, Sr or Ba cation; and x is 1 or 2 and is equivalent to the valency of M_1).

(I)



$$\underset{COOR}{\underset{|}{CH_2}} - \underset{COOM_{1/x}^{+x}}{\underset{|}{CH}} - \overset{COOR_2}{\overset{|}{\underset{COOR_1}{\underset{|}{C}}}} - Q_1$$

The new derivs. may be converted into cis and trans aconitic acid or into a mixt. of isocitric acid, alloisocitric acid and the lactones of these acids as well as salts of these acids.

US 4123458 described the prepn. of aconitic acid and its salts (useful as metal sequestrants and detergent builders) from dialkyl-malonyl succinate, a deriv. of formula (I) being formed as an intermediate in the process. 15.5.78 as 905719 Div. ex 4123458 (16pp990)

CHEM- ★ D25 52521B/28 ★ZA 7802-342

Cleaning compsn. - contg. high boiling mineral hydrocarbon(s) and nonionic surfactant contg. ethylene oxide or propylene oxide gps.

CHEMED CORP 28.04.78-ZA-002342

A97 (15.03.79) C11d-01

CPI INDEXES

RTING PATENTEE INDEX (II)

ly by section and overall, lists all current patents in tee code order and, within a given patentee, in earliest ty date order. The first line gives patentee code, st priority date, patentee name, CPI classes and finally urrent patent number. The second line gives the first of the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
    Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
    Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

I CLASS INDEX (IV)

ekly only. Headings are all the CPI ses within the section to which an ting Bulletin relates, arranged in erical order. Posted under each class ding is a list, in country then patent nber order, of all basic or equivalent uments referenced or cross-erenced under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

ASIC NUMBER INDEX (V)

eekly by section and overall, lists all ries by accession number. Each ading consists of the accession mber in bold, followed by the CPI ction letters. There then follows a of all the family members, mmencing with the basic and ishing with the current week's tent. For each family member the PI week of issue is quoted, and a us sign indicates that a multiple iority has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                               49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                          49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                               48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX 1

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distingu accepted West German specifications (DAS) from unexamined applications (OLS) which are given the nc DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR
Australia	AU
Austria	OE
Belgium	BE
Brazil	BR
Bulgaria	BG
Canada	CA
Chile	CE
Colombia	CO
Czechoslovakia	CS
Denmark	DK
Europe	EP
Finland	SF
France	FR
Germany, East	DL
Germany, West	DS
Germany, West	DT
Greece	GR
Hungary	HU
Iceland	IS
India	IN
Ireland	EI
Israel	IL
Italy	IT
Japan	JA
Japan, unex.	J5
Japan, ex.	J7
Luxembourg	LU
Malawi	MW
Mexico	MX
Monaco	MC
Netherlands	NL
New Zealand	NZ
Norway	NO
Pakistan	PK
PCT	WP
Philippines	RP
Poland	PO
Portugal	PT
Rhodesia	RH
Rumania	RU
South Africa	ZA
South Korea	KS
Spain	ES
Sudan	SD
Sweden	SW
Switzerland	CH
Syria	SR
Trinidad	TD
Turkey	TR
Untd. Kingdom	GB
U.S.A.	US
U.S.S.R.	SU
Yugoslavia	YU

.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 *DT 2855-066
cyl or alkyl fortimicin A and B derivs. - 51124B/28
.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =DT 2855-094
xy-N-substd.-fortimicin A and B cpds. - 49527B/27
5.10.77 ADOLPHE M C03 D13 (D16) =FR 2405-028
al foodstuffs obtd. from brewery residues - 40420A/23
02.11.78 ADVANCED WATER SERV D15 J02 =GB 2011-268
ment of effluent liquors from demineralisation plant - 37475B/20
.01.78 AIR FROHLICH AG D16 *DT 2800-184
g green malt - 51099B/28
.11.77 AJINOMOTO KK D21 E12 *J5 4067-040
-paste compsn. with excellent cleaning power - 51396B/28
.11.77 AJINOMOTO KK B05 D16 E19 *J5 4067-093
icn. of aminoacid produced by fermentation from waste molasses -
4B/28
9.12.77 ALBRIGHT & WILSON LTD A97 D21 (A25) *DT 2853-136
surfactant concentrates - 51110B/28
1.12.77 ALFA-LAVAL AGRAR D16 *DT 2759-180
ogical composing of liquids - 51088B/28
1.10.77 AKZONA INC A25 D21 (A96 D23) =BR 7806-729
ural beeswax substitute compsn. - 31945B/17
28.03.77 ALMAY INC D21 *US 4159-028
ning and containerising a multiphase cosmetic compsn. - 52387B/28
22.08.77 AMERICAN HOME PROD CORP D13 =FR 2405-024
le, sprayable, lecithin vegetable oil compsn. - 15979B/09
18.07.77 AMINKEMI AB B07 D22 =J5 4066-975
arinisation of charged surfaces - 12259B/07
29.06.77 AMF INC A97 D18 =ZA 7803-721
onstituted tobacco mfr. - 78436A/44
= 02.02.77 A MEDICINE NUTRITIO D13 *SU -624-593
ter product obtained from milk and vegetable fat - 52093B/28
- 05.10.77 AMER ORIGINAL CORP D12 =FR 2405-021
ble shellfish treatment with sodium sulphite and/or metabisulphite -
31B/16
- 05.10.77 AMER ORIGINAL CORP D12 =FR 2405-022
ble shellfish treatment with sodium sulphite and/or metabisulphite -
31B/16
- 05.10.77 AMER ORIGINAL CORP D12 =PT --68-614
ble shellfish treatment with sodium sulphite and/or metabisulphite -
31B/16
- 15.06.78 AMSTAR CORP D17 *US 4159-210
ee-flowing dried maple sugar - 52405B/28
10.10.72 ANHEUSER BUSCH INC D16 (D17) =CS 7306-965
tinoplanes type glucose isomerase - 30755V/17
10.10.72 ANHEUSER BUSCH INC D16 (D17) =CS 7608-298
tinoplanes type glucose isomerase - 30755V/17
03.01.78 ANIC SPA B05 D23 E17 =DT 2852-587
ethyl-heptenone prepn. for use as terpene intermediate - 45685B/25
R 07.10.77 AGENCE NAT VALORISATION D12 *FR 2405-023
icrowave thawing of food items over 30 kg. in wt. - 51177B/28
T 24.07.74 APOTHEKERNES LAB FU A/S D15 J01 =DS 2530-820
ecovery of pptn. agent from pptd. protein matter - 83261W/51
K 28.00.72 ARAKAWA RINSAN CHEM A96 D24 =J7 9015-708
osin soaps prepn - 10046V/06
N 05.08.76 ARENCO AB D12 =CA 1057-012
ositioning fish for processing machines - 12639A/07
E 21.07.72 ASAHI ELECTROCHEM IND KK D13 =J4 9031-708
fg. oil emulsion for use in pastry - 51951B/28
E 21.07.72 ASAHI ELECTROCHEM IND KK D13 *J7 9015-682
fg. oil emulsion for use in pastry - 51951B/28
K 15.08.77 ASAHI BREWERIES KK D16 *BR 7800-180
eer cooling process - B/28
L/ 22.08.69 ASTL J D15 =DS 2041-701
Water purification apparatus for connec- - 17472S/10
R 06.10.71 ASTRA LAKEMEDEL AB A96 B04 C03 D16 (D25) =NL 7901-

njectable iron prepns - 23071U/17
AN- 11.10.77 AVANT LTD D15 *US 4159-228
Solar distillation appts. with airtight enclosure - 52418B/28

CH/ 21.04.77 BACHMANN P A B04 C03 D16 =US 4159-319
Prodn. of attenuated transmissible gastroenteritis virus - 76283A/43
DI 14.05.77 BASF AG A60 C03 D22 E14 =ZA 7802-718
2-Tri:chloro:methyl-4-nitro:benzene:sulphenic acid derivs. - 82112A/46
DI 23.05.77 BASF AG A97 D25 E17 (A25 E16) =DS 2723-139
Synergistic low foaming surfactant compsn. - 87977A/49
DI 25.05.77 BASF WYANDOTTE CORP D25 E19 (E36) =ZA 7802-974
Thickened cleaning concentrate for metal surfaces, esp. vehicles -
70835A/40
DI 19.11.77 BASF AG C03 D13 =NO 7803-824
Feedstuff additive for monogastrenes e.g. piglets - 40773B/22
RT/ 14.06.77 BARTA J D16 *CS 7703-907
Biological stabilisation of continuous fermentation process - B/28
TT 10.06.77 BATTELLE MEMORIAL I C03 D13 =ZA 7803-326
Carbohydrate based ruminant feedstuff - 89608A/49

BEGH- 20.10.75 BEGHIN-SAY SA A11 D22 F09 =DS 2646-317
Crosslinking cellulose with formaldehyde - 27116Y/16
BEHW 10.06.75 BEHRINGWERKE AG B04 D16 =GB 1548-258
Virus vaccines from cell cultures - 96503X/52
*BELG= 13.02.76 BELGOROD DAIRY PROD D13 (D16) *SU -624-592
Kefir-type fermented milk prodn. - 52092B/28
BELN 11.05.70 LAB BELLON R B04 C03 D16 =DS 2121-237
Virus culture - 71981S/45
*BENC 00.00.77 BENCKISER J A GMBH D25 *DT 2757-930
Dish washer operation accelerating soln. of cleaning agents - 51004B/28
BENC 01.04.77 BENCKISER J A GMBH D25 =DS 2714-604
Granular product for washing and cleaning compsns. - 55162A/31
BENC 18.08.77 BENCKISER KNAPSACK D15 E11 F06 M14 (D25 F09) =J5 4070-222
Amino-alkane-carboxylic-di:phosphonic acid prodn. - 18188B/10
BENC 05.10.77 BENCKISER J A GMBH D25 J04 =FR 2405-091
Free-flowing dust-free granulate, esp. for detergent mfr. - 31685B/17
BENC 05.10.77 BENCKISER J A GMBH D25 E37 =FR 2405-293
Granulation products contg. polymerised phosphate and aluminosilicate - 11963B/07
BENI- 19.02.76 BENIER BV D11 =CA 1057-125
Forming dough into balls and kneading them - 57528Y/33
*BETZ/ 21.12.77 BETZ A D16 E17 *DT 2757-684
Glycerine prodn. - 50999B/28
BIOG 01.12.76 BIOGAL GYOGYSZERGYA B04 D16 =DS 2753-388
Large volume fermenter for antibiotic mfr. - 51838A/29
BIOM- 04.05.76 BIOMECHANICS LTD D15 #CA 1057-429
Biological treatment of organic wastes - 19203X/11
BIOM- 23.12.77 INST BIOMEDIZINISCH D22 =DT 2757-854
Liquid disinfecting appts. - 26441B/14
BIOR- 02.08.72 BIORESEARCH SAS B02 D16 =CS 7305-374
S-adenosil-l-methionine tri-para-toluene sulphonate - 03583V/02
*BISE- 02.11.77 Z H HAND BISEBUTSUB B04 D16 (D21) *J5 4067-092
Insoluble glucan decomposing enzyme prodn. - 51403B/28
*BLEN 22.12.77 BLENDAX WERKE SCHNEIDER D21 *DT 2757-280
Tooth paste compsns. contg. zeolite - 50979B/28
*BLEN 22.12.77 BLENDAX WERKE SCHNEIDER D21 *DT 2757-290
Tooth paste compsns. contg. zeolite - 50980B/28
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =NL 7812-319
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
*BOEF 24.12.77 BOEHRINGER MANNHEIM GMBH A96 D22 E13 *DT 2758-036
Adsorbent for separating bio-polymers - 51012B/28
BREV 24.12.77 BREVETEAM SA C03 D15 J04 K07 (D22 J01) =DT 2855-059
Flexible stratified mass transfer element - 31612B/17
BREV 24.12.77 BREVETEAM SA C03 D15 J04 K07 (D22 J01) =NL 7812-241
Flexible stratified mass transfer element - 31612B/17
BRID 12.03.75 BRIDGESTONE TIRE KK A88 D14 (A25) =J7 9015-824
Polyurethane roll for removing rice hulls - 84194X/45
BRIK- 10.10.77 BRIK PAK INC B04 D16 (D13) #FR 2405-264
Purifying sulphydryl oxidase enzyme derived from whole milk - 29946B/16
*BROW- 17.10.77 BROWN INT CORP D13 *BR 7806-813
Fruit juice extractor - B/28
BRPE 07.07.75 BP CHEMICALS LTD A12 D15 =GB 1548-387
Purifying waste water from chloroprene emulsion polymerisation - 07995Y/05
*BRTO 12.09.77 BOC LTD D15 *GB 2011-369
Treatment of aq. waste materials - 51260B/28
BUHL 07.10.77 BUHLER GEBR AG D15 =FR 2405-227
Refuse and sludge conversion to compost - 31856B/17
BURP 09.06.77 BURTON PARSONS & CO D22 E36 (E34) =DS 2810-978
Proteinaceous material separation from soft contact lens material - 63164A/35
*BUSH/ 19.10.76 BUSHIN I F D14 *SU -624-599
Domestic fruit juice extractor - 52097B/28

*CADB 14.11.77 CADBURY SCHWEPPES LTD C03 D22 *GB 2011-399
6-Alkyl-5-indanol cpds. - 51271B/28
*CAIE/ 09.11.76 CAIELLO J A D11 *US 4159-349
Cheese topping for pizza pie - 52476B/28
CALI 11.05.77 CHEVRON RESEARCH CO D16 E16 =FR 2405-243
Mono,di or tri:chloromethyl di:thioacetic acid - 86446A/48
*CANA 07.10.75 CANADIAN PAT & DEV LTD C03 D13 *CA 1057-114
Toxin free protein concentrate - 50934B/28
CARO 30.12.77 CARBORUNDUM CO D15 E36 J01 =GB 2011-359
Hard granular activated carbon for water treatment - 35108B/18
*CARR/ 09.10.78 DOS S CARRICO A J D13 *PT --68-635
Prepn. of potatoes ready for cooking - B/28
*CERA- 07.10.77 CERALIMENT-LU BRUN D11 *FR 2405-020
Loading device for loaves into shelved wagons - 51176B/28
CHAL- 23.06.77 CHALLENGE-COOK BROS D18 =ZA 7803-330
Tumbler drum for treating hides - 75993A/42
*CHEM- 28.04.78 CHEMED CORP A97 D25 *ZA 7802-342
Cleaning compsn. - 52521B/28
CIBA 26.05.77 CIBA GEIGY AG B04 C03 D13 (D16) =ZA 7803-007
Avilamycin antibiotic as animal feed additive - 86132A/48

*CIBA 03.01.78 CIBA GEIGY AG D15 E36 *GB 2011-374
Removal of soluble cyanide complexes from waste waters - 51264B/28

*CIZE/ 06.03.78 CIZEK P D15 *CS 7801-382
Water aerator - B/28

*CLEV- 22.11.77 CLEVEPAK CORP D15 *SW 7811-985
Aeration and mixing system for waste water - B/28

CLEV- 22.11.77 CLEVEPAK CORP D15 =SW 7811-986
Aeration chamber for mixing gas and waste water - 47042B/25

CNSF 15.06.77 CONSOLIDATED FOODS CORP D15 =ZA 7803-257
Drinking water treatment - 03428B/02

COKE 30.12.77 COCA-COLA CO D23 E15 =GB 2011-413
Substd.-cyclohex-3-en-1-one cpds. useful as perfume materials - 09884B/05

COLG 23.07.76 COLGATE PALMOLIVE CO A96 D21 E16 =GB 1548-346
Nonionic aq. hair shampoo - 08684A/05

COLG 02.12.76 COLGATE PALMOLIVE CO A97 D25 E34 =ZA 7706-824
Washing powder based on carbonate and bi:carbonate particles - 26993A/15

COLG 02.12.76 COLGATE PALMOLIVE CO A97 D25 E34 F06 =ZA 7706-946
High density, free flowing detergent softener particles - 26994A/15

COLG 02.12.76 COLGATE PALMOLIVE CO A97 D25 E19 =ZA 7706-948
Low density washing powders based on nonionic detergent - 26991A/15

COLG 20.12.76 COLGATE PALMOLIVE CO D22 =ZA 7706-823
Baby's disposable napkin with pressure sensitive adhesive tapes - 30282A/17

COLG 06.10.77 COLGATE PALMOLIVE CO D25 E37 =FR 2405-294
Washing powders based on zeolite(s) and nonionic detergent - 14201B/08

COLG 06.10.77 COLGATE PALMOLIVE CO D25 E37 =PT --68-615
Washing powders based on zeolite(s) and nonionic detergent - 14201B/08

COLG 14.10.77 COLGATE PALMOLIVE CO A97 D25 (A25) =PT --68-660
Abrasive liquid detergent compsn. - 88305A/49

COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =PT --68-675
Deodorant stick based on alkali metal bi:carbonate - 18051B/10

COLG 09.11.77 COLGATE PALMOLIVE CO D21 E37 #J5 4067-041
Dentifrice with improved cleansing and polishing action - 35477B/19

*COLG 06.03.78 COLGATE PALMOLIVE CO A96 D21 (A11) *US 4159-316
Heat generating dentifrice - 52463B/28

COOR- 22.12.77 COORS FOOD PRODS D13 (D16) =DT 2855-675
Edible yeast product used as cocoa substitute - 47147B/26

COOR- 22.12.77 COORS FOOD PROD D13 (D16) =NL 7812-306
Edible yeast product used as cocoa substitute - 47147B/26

CORP 26.02.75 CPC INTERNATIONAL INC D17 (D16) #CA 1057-218
Conversion of starch to levulose from aq suspension - 24155W/15

CORP 26.02.75 CPC INTERNATIONAL INC D17 (D16) #CA 1057-219
Conversion of starch to levulose from aq suspension - 24155W/15

CORP 21.11.77 CPC INTERNATIONAL INC A11 D17 =GB 2011-451
Modified starch prepn. esp. using two centrifuge separations - 38989B/21

CORP 21.11.77 CPC INTERNATIONAL INC A11 D17 =SW 7811-927
Modified starch prepn. esp. using two centrifuge separations - 38989B/21

*DAIN 07.11.77 DAINIPPON PHARM KK B04 D16 *J5 4067-089
Antithrombotic urokinase compsn. - 51401B/28

*DANI/ 24.06.75 DANILOV V M A88 D23 J04 (A11) *SU -625-150
Granulometric analysis of foreign body content of liquids - 52340B/28

DECI- 06.05.76 DEC INT INC D13 =CA 1057-226
Cheese processing machine - 83268Y/47

DEGG- 09.07.77 DEGGENDORFER WERFT D15 =ZA 7803-694
Water desalination system - 06241B/04

DEGM 18.02.70 FA DEGREMONT D15 J04 =DS 2007-315
Chemical plant process control system espfor - 57574S/36

DEGM 17.09.76 FA DEGREMONT D15 =DS 2741-574
Packaged plant for physicochemical purification of waste water - 04212A/03

DEGS 02.10.74 DEUTSCHE GOLD & SILBER D15 J01 =CA 1057-272
Hydrated zeolite molecular sieves for softening water - 30126X/17

DEGS 18.06.77 DEUTS GOLD AND SILBER D25 E33 =ZA 7803-475
Aluminosilicate cpds. contg. combined surfactants - 91495A/51

DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 =DT 2757-561
Deodorising industrial and urban waste water sludges - 47180B/26

DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 =NL 7811-215
Deodorising industrial and urban waste water sludges - 47180B/26

DEGU/ 10.09.75 DEGUCHI K D15 E33 =US 4159-246
Water defluorination by aluminium fluoride formation and pptn. - 20335Y/12

DEJI- 06.10.77 DEJ INT RES CO D13 =FR 2405-025
Prim. extn. of coffee from ground roast coffee beans - 27848B/15

*DMAI/ 05.10.77 MAILLARD P DE D13 *FR 2405-616
Tongs with central movable part - 51215B/28

DNIN 01.04.76 DAINIPPON INK CHEM KK A97 D25 E19 =J7 9015-873
Surfactant compsn. useful as emulsifier, wetting agent etc. - 82058Y/46

DOKO/ 27.12.77 DOKOUPIL J D18 F06 =DT 2758-349
Continuous hot gluing press for leather and footwear blanks etc. - 14534B/08

DOUW 11.09.67 DOUWE EGBERTS KON TAB B05 D13 E19 =NL
738
Flavouring method - 65183Z/00

DOUW 11.09.67 DOUWE EGBERTS KON TAB B05 D13 E19 =NL
739
Flavouring method - 65183Z/00

DYNL 18.11.76 DYNAPOL A97 D13 E24 =ZA 7706-749
Increasing solubility of polymeric dyes contg. amino gps. - 23389

DYNL 22.12.77 DYNAPOL B05 D13 E14 (E12) =NL 7812-383
4-3-Sulpho-4,5-di:hydroxy-hexyl:oxy 4'-alkoxy di:hydro-chalc
31634B/17

DYNN 02.05.70 DYNAMIT NOBEL AG D11 E17 =DS 2065-772
Acetyltartaric acid esters useful as free flow bakery emuls
75806S/48

*EBAI 11.11.77 EBARA INFILCO KK C04 D15 *J5 4068-053
Digestion of sewage etc. - 51494B/28

ECOL- 12.07.74 ECOLOTROL INC D15 =CA 1057-430
Biological treatment for elimination of ammoniacal nitr
81486W/50

*EFFE/ 27.12.77 EFFENBERGER M D15 *CS 7708-806
Intensive purification of aq. effluents - B/28

ELIL 01.07.77 ELI LILLY & CO B04 D16 =US 4159-226
Mfr. of Streptomyces protoplast which regenerates viable
01894B/02

ELIL 05.08.77 ELI LILLY & CO A96 D21 G02 (A14 A82) =BR 7800-40
Nail varnish based on aq. polymer emulsion - 42204A/24

ELIL 05.08.77 ELI LILLY & CO A96 D21 G02 (A14 A82) =ZA 7707-01
Nail varnish based on aq. polymer emulsion - 42204A/24

ELIL 20.10.77 ELI LILLY & CO B03 C02 D13 E13 =J5 4070-276
Antibiotics 20-deoxy-narasin and 20-deoxy-epi-17 narasin - 19939

ELIL 20.10.77 ELI LILLY & CO B03 C02 D13 E13 =PT --68-661
Antibiotics 20-deoxy-narasin and 20-deoxy-epi-17 narasin - 19939

ELIL 26.10.77 ELI LILLY & CO B03 D22 E13 =J5 4070-256
2-3-Amino-2-oxo-1-azetidinyl 3-methyl 2- or 3 butenoic acid d
31575B/17

*ENVI 09.08.77 ENVIROTECH CORP D15 *US 4159-243
Controlling denitrification in orbital sewage treatment sy
52428B/28

EPAR- 06.07.76 EPARCO D22 =US 4159-008
Granular sanitary material for cat's tray - 04679A/03

*ERAP 04.10.77 ELFUNION D15 H05 J01 *FR 2405-082
Sepg. two immiscible liquids by means of coalescent mat
51184B/28

*ESPE 03.01.78 ESPE FAB PHARM PRAPARATE A96 D21 (A14) *DT 2
550
Opaque dental filling materials - 51165B/28

*ESSO 03.01.78 EXXON RES & ENG CO D15 E36 J01 *GB 2011-372
Non-stoichiometric carbon-sulphur cpds. - 51262B/28

EURT 27.02.75 EUROC ADMINISTRATION AB D15 (D16) =CS 7601-
Removing harmful nitrogen cpds from water - 70749X/38

*EVRA/ 23.12.77 EVRARD J E M D13 *DT 2853-277
Pasty food packaging machine e.g. for soft cheese - 51111B/28

*FABI/ 04.03.77 FABIAN J D16 *CS 7701-482
Pectolytic enzyme recovery from fermentation medium - B/28

FABR 02.04.75 FABRE P SA A96 B04 C03 D16 =DS 2613-943
Acellular vaccines prodn. - 75678X/41

FARB 05.08.75 BAYER AG D15 F09 =DS 2534-892
Purifying waste liquor contg. sulphide, sulphite and thiosulp
09372Y/06

FARB 25.06.77 BAYER AG A96 D21 (A14) =BR 7803-474
Two/part dental filling paste compsn. - 87799A/49

FARB 13.09.77 BAYER AG A14 D21 (A25 A96) =BR 7802-659
Two/phase pearl polymers - 22260B/12

FARB 13.10.77 BAYER AG D25 E23 F06 =BR 7806-745
Optically-brightening bis:triazolyl stilbene(s) prodn. - 49880A/28

FARB 25.10.77 BAYER AG B02 C02 D13 =J5 4070-289
Quinoxaline-di-(N)-oxide derivs. - 33712B/18

FARB 26.10.77 BAYER AG B05 C03 D22 E14 =J5 4070-237
Aryl-thiocarboxylic acid thiocyano-methyl ester derivs. - 33714B/18

*FARE= 14.02.77 FAR EAST POLY D12 *SU -625-126
Shaped component length-measuring device - 52337B/28

FARH 25.07.77 HOECHST AG A60 D22 E16 M25 (D21) =PT --68-343

Non-symmetrical sec. ether-amine derivs. - 10263B/06

FARH 22.12.77 HOECHST AG A96 B04 D16 =DT 2757-169
Prodn. of insulin producing cell line - 49536B/27

*FARM= 14.02.77 FARM MACH CONS INST D14 *SU -624-594
Fruit grader belt conveyor - 52094B/28

FERO 22.04.75 FERROSAN B03 D21 =GB 1548-377
1-Alkyl-piperidines - 68788X/37

FIBR- 20.02.75 FIBRA-SONICS INC A96 D22 =DS 2507-353
Automatic contact lens cleaning appts - 70581X/38

*FILP- 02.09.75 FILPER CORP D13 *US 4158-993
Selective peach pitter - 52381B/28

FIRM 28.09.73 FIRMENICH SA B02 C02 D13 E13 (D15) =DS 2445-67
Cocoa aroma flavouring mixt. - 26176W/16

17.06.77 FIRMENICH SA D23 E13 (D13 D21) =US 4159-258
:cyclic norbornane derivs for perfumery use - 02215B/02
05.10.77 FIRMENICH SA B07 D13 E13 (B03) #FR 2405-251
tra:methyl-oxa-spiro-deca:diene cpds. - 34615B/18
C 13.03.67 FMC CORP D15 E13 (D22) =DS 1667-879
ontrolled solubility sanitizer tablet - 01168R/01
C 27.12.77 FMC CORP D15 #DT 2758-220
iminating cyanurate cpds. from waste water - 56782A/32
E= 19.07.76 FORESTRY MECHANISAT D16 *SU -624-591
ushroom drying in two stages - 52091B/28
R 17.08.76 FERRERO P & CIA SPA D11 =US 4159-348
aba type fancy cake - 90091Y/51
- 07.10.77 FRENCH TIMBER INDS C03 D22 F09 *ZA 7706-023
Vood treatment - B/28
S/ 24.04.78 DR FRYSH H D21 *ZA 7802-334
entifrice compsn. - B/28
CH/ 26.09.67 FUCHS H D15 J02 =CS 6806-518
Agitator for introducing additives to liquids - 48996S/30
OO- 08.11.77 FUDO GIKEN KK D15 *J5 4068-047
Puricn. of polluted water and accumulated sludge - 51491B/28
OO- 08.11.77 FUDO KENSETSU KK D15 *J5 4068-047
Puricn. of polluted water and accumulated sludge - 51491B/28
SO 05.11.77 FUSO KAGAKU KOGYO K D13 *J5 4067-061
Peeled pickled radish prepn. - 51397B/28

ART- 30.12.77 GARTNER J & CO D15 M13 *DT 2758-960
Treatment of rinse water from aluminium chromating plant - 51082B/28
EBA- 27.12.77 GEBA GERATEBAU GMBH D12 =DT 2758-233
Shrimp peeling machine - 29804B/16
EBA- 27.12.77 GEBA-GERATEBAU GMBH D12 =GB 2011-242
Shrimp peeling machine - 29804B/16
EBA- 27.12.77 GEBA GERATEBAU D12 =NL 7812-072
Shrimp peeling machine - 29804B/16
ENM 28.11.77 GENERAL MILLS INC D21 *US 4159-315
Plaque-inhibiting chewing gum - 52462B/28
ENO 30.11.77 GENERAL FOODS FRANC D13 =GB 2011-240
chewing gum prepn. - 25987B/14
ERN/ 23.06.75 GERNER M M A96 D21 (A14 A26) *SU -624-630
Fast setting dental cement prepn. - 52104B/28
IMA- 04.10.77 GIMAR SPA D16 *FR 2405-300
Automatic fermentation plant for industrial winemaking installation - 51203B/28
IUL- 26.11.77 GUILINI CHEM GMBH D21 =DK 7805-146
Dentifrice contg. fine poly:phosphate granulate - 42569B/23
LAC- 21.11.77 GLACE-BOLAGET AB D13 =SW 7713-124
Ice cream cone closure appliance - 40870B/22
GOLD/ 25.10.77 GOLDBERGER-CROSS H D15 *ZA 7706-342
Combined processing of solid and liq. waste - B/28
GOLD/ 28.10.77 GOLDBERGER-GROSS H D15 J01 *ZA 7706-443
Rotary screening structure - B/28
GOTZ- 22.11.76 GOTZELMANN KG D15 M11 =US 4159-235
Electrolysis of metal-contg. waste water - 38690A/22
GOTZ- 03.05.77 GOTZELMANN KG D15 M11 =DT 2757-271
Recovery of metal from effluent in electrolytic process - 85247A/47
GRAM- 06.10.77 BRODRENE GRAM A/S D13 =FR 2405-026
Deeply inlaid decoration of iced lollies with contrast material - 11966B/07
GRAM- 06.10.77 BRODRENE GRAM A/S D13 =FR 2405-027
Decoration of iced lollies with patterned imprint - 11967B/07
GROT/ 10.10.77 GROTZ W D15 J02 =FR 2405-090
Motorised rotary agitator to aerate liq. manure etc. - 14204B/08

*HASE 11.11.77 HASEGAWA KK B07 D23 E17 (B05 D13 D21) *J5 4070-208
5-Octen-1-ol geometric isomers prepn. - 51886B/28
HELI 07.09.73 HELIOS KEMISK-TEKNI AB D25 M14 =CA 1057-154
Aq. detergent compn for cleaning aluminium surfaces - 09218W/06
HENK 16.11.72 HENKEL KG AUF AKTIEN A97 D25 F06 =DS 2256-194
Detergent compsns contg cellulose mixed ethers - 40140V/22
HENK 02.10.74 HENKEL KG AUF AKTIEN D15 J01 =CA 1057-272
Hydrated zeolite molecular sieves for softening water - 30126X/17
HENK 28.05.77 HENKEL KG AUF AKTIEN A97 D25 (A25) =ZA 7803-031
Rinsing prod. for dish washing machines, contg. draining cpd. - 86153A/48
HENK 18.06.77 HENKEL KG AUF AKTIEN D25 E33 =ZA 7803-475
Aluminosilicate cpds. contg. combined surfactants - 91495A/51
HENK 16.07.77 HENKEL KG AUF AKTIEN D18 E33 =BR 7803-010
Additives for defatting and tanning in leather mfr. - 10088B/06
HENK 08.10.77 HENKEL KG AUF AKTIEN A97 D14 =BR 7806-633
Cleaning product for fruit, vegetables and other foods - 27862B/15
HENK 08.10.77 HENKEL KG AUF AKTIEN A97 D14 =FR 2405-032
Cleaning product for fruit, vegetables and other foods - 27862B/15
HENK 23.11.77 HENKEL KG AUF AKTIEN A11 D22 E16 (A14 A96) =US 4159-260
Hydrolysed grafted starch-polyacrylonitrile copolymer mixture - 01981B/02
HENK 22.12.77 HENKEL KG AUF AKTIEN D21 E19 =DT 2757-278
Mono- and di:carboxylic acid 2-hydroxy-alkyl ester(s) - 51272B/28
*HENK 22.12.77 HENKEL KG AUF AKTIEN D21 E19 *GB 2011-403
Mono- and di:carboxylic acid 2-hydroxy-alkyl ester(s) - 51272B/28
HENK 23.12.77 HENKEL KG AUF AKTIEN D23 E17 (D21 D25) =DT 2757-559
3,5,5-Tri:methyl hexanoic acid ester(s) used as aromatic materials - 47163B/26
HENK 23.12.77 HENKEL KG AUF AKTIEN D23 E17 (D21 D25) =NL 7811-788
3,5,5-Tri:methyl hexanoic acid ester(s) used as aromatic materials - 47163B/26
*HENK 27.12.77 HENKEL KG AUF AKTIEN D21 E33 *DT 2758-202
Shower-bath skin cleansing compsns. - 51022B/28
*HENK 27.12.77 HENKEL KG AUF AKTIEN D21 E24 *DT 2758-203
Oxidative hair dyes - 51023B/28
*HITA 09.11.77 HITACHI KK D15 J01 K07 *J5 4067-571
Rotary blade evaporator - 51453B/28
*HITA 14.11.77 HITACHI KK D15 E32 J01 K05 *J5 4068-786
Titanium oxide adsorbent for treating hot water - 51603B/28
*HITG 11.11.77 BABCOCK-HITACHI KK D15 *J5 4068-774
Cross-tube type multistage flash water evaporator - 51594B/28
*HITK 10.11.77 HITACHI METAL KK D21 M26 *J5 4067-516
Low m.pt magnetic alloy, used e.g. as a dental compsn. - 51437B/28
*HITK 16.11.77 HITACHI METAL KK D15 E31 J09 M11 *J5 4069-571
Treating incinerated sludge ash contg. hexavalent chromium - 51819B/28
*HITK 16.11.77 HITACHI METAL KK D15 E31 J09 M11 *J5 4069-572
Sludge treatment of sewage, industrial effluents etc. - 51820B/28
HOFF 11.05.77 HOFFMANN-LA ROCHE AG D21 E12 =ZA 7802-546
Antiperspirant organo-aluminium cpds. - 82107A/46
*HOLA/ 03.03.78 HOLATA M D15 *CS 7801-358
Sampler for collecting water from bottom of conduit - B/28
HOUT/ 28.11.77 HOUT C W I D14 =DK 7805-265
Cheese rind planing machine - 42631B/23
HUBE 15.09.76 HUBER J M CORP B06 D21 M14 =US 4159-280
Fluoride tooth:paste compsn. suitable for unlined aluminium tubes - 19654A/11
HUMP/ 15.03.72 HUMPHREY A D16 =CS 7206-982
Isomerised hop extracts - 09425U/07
*HVIZ/ 25.05.77 HVIZDAL Z D15 *CS 7703-451
Even distribution of liquid fed into sedimentation tank - B/28
HYDR- 16.06.77 HYDRO-PLAN ENG LTD D15 J01 =ZA 7803-203
Self-cleaning filtration device - 45610B/24

ICIL 09.06.77 IMPERIAL CHEM INDS LTD A97 D25 E34 =ZA 7803-169
Liquid detergent compsn. used as washing powder substitute - 89619A/50
ICIL 23.06.77 IMPERIAL CHEM INDS LTD B06 D21 E33 =ZA 7803-241
Cleaning teeth using specified rare earth element cations - 00007B/01
ICIL 08.09.77 IMPERIAL CHEM INDS LTD D16 (D13) =J5 4067-084
Microbiological prodn. of single cell protein - 18028B/10
ICIL 03.11.77 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =J5 4070-203
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18
ICIL 23.12.77 IMPERIAL CHEM INDS LTD C03 D22 G02 H08 (D15 G03) =NL 7812-483
1-Thiocyanato-8-substd. naphthalene biocides - 47159B/26
*INFL 24.08.77 INT FLAVORS & FRAGR INC B03 D13 E13 (D21) *US 4159-347
Cyclic acetal or 2-methyl-2-pentenal - 52475B/28
INOZ 24.02.71 INOUE JAPAX RES INC D15 =J7 9016-134
Purifying effluents or contaminated waters - 52330T/33
INOZ 09.06.72 INOUE JAPAX KENKYUSHO D15 #J7 9016-135
Ind waste water treatment - 79102U/51
*INPR= 29.11.76 IND PROC AUTO RES D13 *SU -625-140
Tea processing temp. change rate monitor - 52338B/28
INRG 07.06.77 INST NAT RECH AGRON C03 D13 (D16) =ZA 7803-072
Nutritional protein prodn. from Trichoderma album - 89622A/50
INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D16 =CA 1057-220
Recovery of zearalenone from fermentation liquors - 00047Y/01

*JACH- 08.11.77 JA CHLORELLA CONSU D13 *J5 4067-070
Chemical seasoning prepn. - 51399B/28
JAGN 24.12.77 JAGENBERG WERKE AG D14 =NL 7812-264
Automatic dispenser of tiny doses of liq. - 31645B/17
JEYE- 19.05.75 JEYES GROUP LTD D25 E13 =GB 1548-379
Conc viscous hypochlorite bleaching product for cleaning - 75705X/41
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =DT 2841-077
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =NL 7809-454
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =NL 7810-848
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10

*KACA/ 15.12.77 KACANI S D15 E13 J01 *CS 7708-403
Sulphur-contg. effluent purification - B/28

KAKY 28.12.77 KAKENYAKU KAKO 3 CO B04 D16 =DT 2856-410
Straight chain peptide type antibiotics K 582 M - 51279B/28
*KAKY 28.12.77 KAKEN YAKU KAKO KK B04 D16 *GB 2011-425
Straight chain peptide type antibiotics K 582 M - 51279B/28
KAOS 30.08.73 KAO SOAP KK A97 D25 E19 =J7 9015-549
Stable sodium percarbonate or peroxypyrophosphate bleach compsn. - 70972X/38
KATS- 04.09.76 KATSURAYA FINE GOOD A97 D25 (A25) =J7 9015-763
Fragrant abstergent compsn. for flush WC - 32976A/18
*KAWA/ 14.11.77 KAWAMURA S A97 C04 D15 *J5 4069-573
Industrial waste sludge treatment and utilisation - 51821B/28
KEIL/ 25.11.77 KEIL W A91 D15 J01 =DK 7805-114
Water softening appliance - 33443B/18
*KEMA 16.11.77 KEMANOBEL AB D22 E19 M14 *GB 2011-383
Sulphite on bi:sulphite cpds. contg. hydrophobic gps. - 51266B/28
*KEMI- 09.01.78 KEMIN IND INC C03 D13 *PT --68-651
Prepn. of stable edible emulsions contg. amide(s) - B/28
KEND 24.06.77 KENDALL CO D22 E13 =ZA 7803-613
Sterilisation using ethylene oxide-contg. gas mixt. - 00433B/01
KEND 01.07.77 KENDALL CO D22 F07 =ZA 7803-564
Full length therapeutic elastic stockings - 78453A/44
*KHME= 11.07.75 KHARK MED PLAS WKS A96 D22 (A14) *SU -624-625
Acrylic and fluorinated rubber copolymer for denture mfr. - 52102B/28
KIKK 08.10.77 KIKKOMAN SHOYU KK D16 =FR 2405-263
Pectin esterase having methyl ester hydrolysing activity - 30037B/16
KLOC 22.12.77 KLOCKNER WERKE AG D15 =NL 7811-057
Clarified sewage sludge vessel - 60568A/34
*KLOC 19.05.78 KLOCKNER WERKE AG D15 *DS 2821-896
Sewage sludge pasteurisation - 50951B/28
*KOCK/ 07.03.77 KOCKOVA-KRATOCHVILO D16 *CS 7701-507
Use of Cryptococcus for xylanase prepn. - B/28
*KOMO/ 29.09.77 KOMORA F C03 D22 F09 *CS 7706-293
Wood-protecting impregnating agent - B/28
*KULL/ 03.01.78 KULLMANN H F A97 D15 *DT 2800-137
Activated sludge treatment of waste water - 51097B/28
KUPK/ 22.05.76 KUPKA D D16 J02 =CS 7701-135
Height adjustable agitator for open process vat - 46259A/26
KURE 14.03.73 KUREHA KAGAKU KOGYO D15 J04 =US 4159-244
High adsorption efficiency activated carbon fluidized bed - 56759V/32
KURE 30.08.76 KUREHA KAGAKU KOGYO B04 C03 D16 =US 4159-225
Mono:karyotic mycelium of coriolus versicolor mfr. - 15897A/09
KYOW 22.10.71 KYOWA FERMENTATION KK C04 D16 =J4 8048-256
Fertiliser for seaweed cultivation - 51970B/28
*KYOW 22.10.71 KYOWA FERMENTATION KK C04 D16 *J7 9015-827
Fertiliser for seaweed cultivation - 51970B/28
*KYOW 21.12.77 KYOWA HAKKO KOGYO B03 C02 D22 E13 *DT 2855-348
2′-N-Substd. fortimicin A derivs. - 51129B/28
KYOW 21.12.77 KYOWA HAKKO KOGYO B03 D22 E13 =DT 2855-349
2-Deoxy-fortimicin B and its precursors - 47152B/26
*KYOW 21.12.77 KYOWA HAKKO KOGYO B03 C02 D22 E13 *DT 2855-350
4,2′-Di:acyl or alkyl fortimicin B derivs. - 51130B/28
KYOW 21.12.77 KYOWA HAKKO KOGYO B03 D22 E13 =DT 2855-424
N-Substd.-fortimicin A derivs. - 49528B/27
*KYOY 15.11.77 KYORITSU YUKIKOGYO A91 D15 (A14) *J5 4069-582
Preventing functional deterioration of cationic high mol. coagulants - 51828B/28

LABO 27.12.77 LABOFINA SA A97 D25 H03 (D15) =GB 2011-368
Surfactant compsn. for treating oil slicks and beaches - 47162B/26
*LCAS 27.01.77 LAB CASSENNE B04 D16 *FR 2405-298
Glyco-protein isolated from Escherichia coli - 51202B/28
LIFE- 08.07.77 LIFE SAVERS INC A97 D13 =ZA 7803-520
Chewing gum with long lasting sweetness - 04517B/03
*LIOC 07.11.77 LION DENTRIFICE KK D21 E12 *J5 4067-040
Tooth-paste compsn. with excellent cleaning power - 51396B/28
LIOY 05.11.71 LION FAT & OIL KK D25 E17 =DS 2253-896
Surface active agents - 29126U/21
LOVE 16.11.72 LEO AB D13 (D18) =SU -624-561
Nicotine-contg. chewing gum - 24948V/14
*LRSR- 26.07.76 LRS RESEARCH LTD D15 *US 4159-248
Mobile system for cleaning and processing catch basin - 52430B/28
LUBB/ 16.12.76 LUBBERT G D16 H04 (D13) =CS 7708-361
Edible protein prodn. from fermentation of (N) paraffins - 79493Y/45
LUPO- 28.06.77 LUPOFRESH ALLFELD D16 =GB 2011-597
Hop drying kiln - 02120B/02
LYCK 18.10.77 LYCKEBY STARKELSEFORADL D13 =PT --68-667
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09
LYON- 04.10.77 LYON-SOFRAPAIN LYON D11 =FR 2405-019
Machine for grooving automatically the tops of unbaked loaves - 28843A/16

*MADE/ 10.10.77 MADERN J P D15 *FR 2405-221
Desalination of sea-water by solar radiation - 51192B/28
*MADS/ 23.11.77 MADSEN E D12 *DK 7805-176
Sausage closure clamp and mounting method - B/28
MADS/ 23.11.77 MADSEN E D12 =NO 7803-931
Sausage closure clamp and mounting method - B/28
*MAED- 04.11.77 MAEDA SANGYO KK D11 *J5 4067-068
Compsn. for bakery prods. - 51398B/28
MASW 03.02.73 MASCH BUCKAU WOLF R D17 =DS 2305-326
Continuous sugar centrifuge - 58620V/33
MAUG 09.07.77 AUGSBURG NURNBERG AG D15 =ZA 7803-694
Water desalination system - 06241B/04
MCCA- 29.08.73 MCCAIN FOODS LTD D13 =DS 2359-672
Deep-frozen fried potato chips - 17830W/11
MCDD 29.08.77 MCDONNELL DOUGLAS CORP B04 D16 =BR 780
Testing Escherichia coli sensitivity to antibacterials - 84100A/47
*MEDV/ 12.12.77 MEDVECKY D C03 D13 *CS 7708-297
Feedstuff for farm sucklings - B/28
MEIJ 17.05.74 MEIJI SEIKA KAISHA D13 =DT 2560-100
Chewing gum of low specific wt. and soft texture - 79144W/48
MEIJ 12.09.75 MEIJI KK D13 =J5 2038-040
Coating foodstuffs, tablets, etc., with a coating liq. - 51918B/28
*MEIJ 12.09.75 MEIJI KK D13 *J7 9010-620
Coating foodstuffs, tablets, etc., with a coating liq. - 51918B/28
MEIJ 04.10.77 MEIJI SEIKA KK B04 D16 =FR 2405-265
Broad-spectrum antibiotic BN-200 - 28137B/15
MEIJ 08.11.77 MEIJI KK C03 D16 =J5 4067-026
Herbicidal compsn. contg. antibiotic SF-1293 - 37454B/20
*MELO 10.10.77 SAUBA LAB SA A96 B04 D21 *FR 2405-068
Water in oil emulsions for dry skin - 51180B/28
*MELO 10.10.77 SAUBA LAB SA A96 B04 D21 *FR 2405-069
Dermatological water in oil hormonal emulsions - 51181B/28
MERI 18.04.77 MERCK & CO INC B02 C02 D16 =PT --67-884
Antibacterial antibiotic (N)-acetyl-dehydro-thienamycin - 76857A/
*MERI 11.05.77 MERCK & CO INC C02 D22 E13 H07 (D15) *US 4159-
Metal-working fluid contg. antimicrobial hexa:hydro-triazine
52433B/28
*MERI 01.08.77 MERCK & CO INC C02 D22 E13 H07 (D15) *US 4159-
Metal-working fluid contg. antimicrobial hexa:hydro-triazine
52432B/28
MICA- 08.01.76 MICARNA FLEISCHW AG D12 =CA 1057-013
Meat cleaving machine to split animal carcase - 32822Y/19
MILE 07.10.77 MILES LABORATORIES INC D13 (D12) =FR 2405-029
Simulated bacon product formed of fat and lean layers - 14203B/0
*MILE 06.03.78 MILES LABORATORIES INC D13 *BE -874-624
Preparing products analogous to cheese - 50906B/28
MITU 22.02.72 MITSUBISHI CHEM IND KK A26 D15 (A91) =J7
920
Chelate-forming amino acid addition polymers - 35183U/25
MITU 14.10.77 MITSUBISHI CHEM IND KK B01 D16 =J5 4067-094
Steroidal alcohol(s) prodn. by fermentation with Mycobacterium
- 33713B/18
MITU 14.10.77 MITSUBISHI CHEM IND KK B01 D16 =J5 4067-095
Steroidal alcohol(s) prodn. by fermentation with Mycobacterium
- 33713B/18
*MITU 07.11.77 MITSUBISHI CHEM IND KK B01 D16 *J5 4067-098
Prepn. of androstane cpds. - 51406B/28
*MITU 07.11.77 MITSUBISHI CHEM IND KK B01 D16 *J5 4067-099
Prepn. of androstan cpds. - 51407B/28
MJOL- 23.11.77 MJOLKCENTRALEN EKON D13 =NO 7803-937
Low calorie margarine mfr. - 24016B/13
MJOL- 23.11.77 MJOLKSENTRALEN EKON D13 =NO 7803-938
Protein concentrate prodn. from skimmed milk - 24015B/13
MJOL- 23.11.77 MJOLKCENT ARLA EKON D13 =SW 7713-274
Protein concentrate prodn. from skimmed milk - 24015B/13
MJOL- 23.11.77 MJOLKCENT ARLA EKON D13 =SW 7713-275
Low calorie margarine mfr. - 24016B/13
MLCW 28.12.77 BYK-MALLINCKRODT CH A96 B04 D16 (A26) =
2758-507
Stabilised, insolubilised biochemical products - 31618B/17
MLCW 28.12.77 BYK-MALLINCKRODT A96 B04 D16 (A26) =GB 2
424
Stabilised, insolubilised biochemical products - 31618B/17
MOHN/ 30.06.75 MOHN H J D15 =DS 2529-156
Controlled addn. of liq. to flowing water - 04120Y/03
*MOLI= 28.04.77 MOSC LIGHT IND INST A97 D18 *SU -624-915
Finishing chrome leather for shoe uppers - 52233B/28
MOLN 21.12.77 MOLNLYCKE AB D22 =NL 7812-297
Intravaginal period sanitary tampon with extraction cord - 47149B/
*MOMD 03.03.77 MOSCOW MEAT DAIRY INST D12 *SU -624-590
Ground frozen meat and bone mixt. sepn. - 52090B/28
MONS 22.08.77 MONSANTO CO A25 D25 (A97) =BR 7805-391
Polymeric acetal carboxylate detergent builders - 18418B/10
MONS 31.10.77 MONSANTO CO A41 D22 E14 H06 (A60 H07) =
4070-248
1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - 37537B/20
*MORA/ 12.01.78 MORAVEC J D15 *CS 7800-243
Elimination of metal hydroxides and organic cpds. from aq. efflu
B/28
MORG 04.07.75 MORINAGA MILK KK B04 C03 D13 =J7 9015-829
Flowable lactulose powder prodn. from lactose soln. - 86973X/47

08.07.75 MORINAGA MILK KK B04 C03 D13 =J7 9015-830
able lactulose powder prodn. from lactose soln. - 86973X/47

22.03.77 MOSCOW CHEM EQUIP INST D16 *SU -624-164
obial, e.g. yeast, culture substrate concn. in nutrient - 52072B/28

= 11.07.75 MOSC STOMATOLOGY D21 L02 *SU -624-622
layer enamel for artificial dentures - 52099B/28

= 11.07.75 MOSC STOMATOLOGY D21 L02 *SU -624-623
-layer enamel for artificial dentures - 52100B/28

= 14.07.76 MOSC VACCINE SERUM B04 D16 *SU -624-636
rum prodn. from klebsiella microbial strain - 52110B/28

12.12.75 MARS LTD D13 =CA 1057-126
ln. of pressed chocolate articles carrying a relief design - 41731Y/24

10.10.77 MARS LTD D13 (D12) =FR 2405-030
ucing odour of fish-based food prods. - 27884B/15

- 12.11.77 NAKAYAMA SEIKOSHO D15 E36 H09 J01 *J5 4068-790
ating sulphur and condensed waste water from coke furnace gas -
07B/28

29.09.67 NEPTUNE MICROFLOC D15 J01 *DS 1784-190
cipitatable matter extraction from fluids - 50943B/28

28.09.71 MAGGI AG D12 =DS 2246-032
at aroma agent - 21488U/16

23.12.77 SOC PROD NESTLE SA B07 D14 =DT 2829-381
ch steriliser for particulate food or pharmaceutical prodn. - 22068B/12

23.12.77 SOC PROD NESTLE SA B07 D14 =NL 7811-269
ch steriliser for particulate food or pharmaceutical prodn. - 22068B/12

29.12.77 SOC PROD NESTLE SA D13 =GB 2011-239
vouring and colouring extract from cocoa shells - 43986B/23

04.01.78 SOC PRODS NESTLE D13 =DT 2856-694
moving flatulent sugars from soya - 40639B/22

- 08.11.77 NIPPON KANKO SHIKIS D15 J04 *J5 4068-052
eating potassium iodide-contg. waste liquor - 51493B/28

09.11.77 UNITIKA KK A96 B04 D16 (A14 A23) *J5 4067-090
be for protease adsorption - 51402B/28

09.11.77 UNITIKA KK A96 B07 D22 (A12 A17) *J5 4068-097
ntithrombotic material for medical articles - 51496B/28

11.11.77 UNITIKA KK D22 J01 *J5 4068-776
dsorber for removing malodorous gas components - 51595B/28

27.12.77 NISSAN CHEM IND KK D17 E12 F09 M12 (D16) =GB 2011-

emoval of calcium oxalate encrustations - 49436B/27

H/ 30.08.74 NISHIYAMA K A97 D13 (A11) #CA 1057-115
ruit juice compsn. and milk drink contg. it - 48434X/26

15.11.77 NITTO ELECTRIC IND KK D15 J01 *J5 4069-578
embrane sepn. treatment of food and fermentation waste - 51825B/28

15.11.77 NITTO ELECTRIC IND KK D15 J01 *J5 4069-579
epn. of ions and low molecular cpds. from soln. - 51826B/28

22.12.77 NITTO ELECTRIC IND KK A97 C03 D22 =DT 2833-290
ntibacterial and antifungal materials - 49538B/27

N 20.09.76 NIHON TOKUSHU NOYAK B05 C01 D22 =GB 1548-350
N)-Sulphonyl phosphoric acid ester amide derivs. - 23603A/13

HB 28.11.77 NORDISCH MASCH R BAADER D12 #DK 7705-270
ish fillet skinning machine - 38622A/22

RV- 30.11.77 NORVIDAN ENG APS D14 =BR 7807-850
Ring mould press for fodder pellets - 42688B/23

VA/ 08.12.76 NOVAK Z D15 *CS 7608-005
Suspension separation in plate-type sedimentation tank - B/28

VO= 23.11.77 NOVOKUIB GIPROKAUCHUK A60 B07 D13 E14 (B05)
O 7704-013
Methyl-di:tert.-butyl:phenol purification - 49676A/28

TR- 30.12.77 NUTRIDAN ENG A/S D12 *DT 2855-981
Animal carcass branding tool - 51143B/28

HY/ 12.04.76 OCHYLSKI E D12 =US 4158-903
Mechanical removal of head from suspended hog carcass - 88460X/47

SU= 26.04.77 ODESS SUPPLY MACH D14 *SU -624-595
Cutting device to remove ends of root crops - 52095B/28

IN- 08.11.77 OKINAW CHLORELLA D16 *J5 4067-087
Propagation of Chlorella - 51400B/28

REA 29.06.72 L'OREAL SA A96 B04 D21 =J7 9015-705
Anti-inflammatory polymers - 05010V/03

REA 24.07.74 L'OREAL SA D21 =DS 2532-934
Skin-softening cosmetics contg acellular plankton products - 11594X/07

REA 30.12.77 L'OREAL SA A96 D21 E19 (A25) =GB 2011-462
Cosmetic for removing make/up from the eyes - 48993B/27

REA 06.01.78 L'OREAL SA D25 *BE -873-315
Cosmetic skin cleaning compsn. - 50873B/28

TSU- 14.03.78 OTSUKA CHEM CO LTD D15 J04 =FR 2405-088
Deoxidising gas with soln. contg. hydrazine, quinone and hydroquinon - 31849B/17

TTA- 04.06.75 GEBRUDER O AG D13 =CA 1057-116
Prodn. of milk with standardised fat content - 03935Y/03

*PALE/ 19.02.76 PALECKOVA F D16 *CS 7601-057
Bacillus licheniformis strain cultivation - B/28

*PASE 02.01.78 PASSAVANTW MICHELBACHER D15 *DT 2800-034
Sewage purification system - 51093B/28

*PASE 02.01.78 PASSAVANTW MICHELBACHER D15 *DT 2800-035
Sewage purification system - 51094B/28

*PASK/ 24.01.77 PASKOVA J D16 *CS 7700-450
Pectolytically active enzymatic compsn. - B/28

*PATE- 13.07.77 PATERSON CANDY INT D15 *ZA 7803-617
Flotation clarification process - B/28

*PATE- 13.09.77 PATERSON CANDY INT D15 *ZA 7803-495
Water clarifier - B/28

PFIZ 17.10.73 PFIZER INC B02 C02 D22 E13 =DS 2449-863
6-Amino-2,2-dimethyl-3-(tetrazol-5-yl)-penam derivs. - 29076W/18

PFIZ 26.10.77 PFIZER INC B04 C03 D16 (D13) =J5 4070-202
Poly:cyclic ether antibiotic 47224 - 35178B/18

PFIZ 03.01.78 PFIZER INC B03 D22 E13 =DT 2856-534
Antibacterial 11-alkanoyl-4-isonitrile oleandomycin cpds. - 84004A/46

PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =DT 2900-118
Antibacterial 4-de:oxy-4-acylamido macrolide cpds. - 49015B/27

PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =DT 2900-120
4-Deoxy-4-aryl-glyoxamido and aroyl thio:formamido-oleandomycin(s) - 49016B/27

PHAR- 29.09.76 PHARMACO INC A88 B07 D16 J01 (A96 D15) =US 4159-251
Microporous ultrafiltration membranes - 25705A/14

PHIP 25.11.77 PHILLIPS PETROLEUM CO C03 D16 (D13) #NO 7704-054
Single cell protein prodn. from mixed thermophilic culture - 44073A/25

PHIP 28.11.77 PHILLIPS PETROLEUM CO C03 D16 (D13) #DK 7705-259
Single cell protein prodn. from mixed thermophilic culture - 44073A/25

PLAC 24.11.77 MAX PLANCK GES WISSENSCH B05 C01 D13 E11 (D25) =DK 7805-185
Ammonio-alkyl phospholipid analogues - 42546B/23

POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 =NL 7900-737
Flavouring method - 65183Z/00

POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 =NL 7900-738
Flavouring method - 65183Z/00

POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 =NL 7900-739
Flavouring method - 65183Z/00

*POLA/ 04.06.76 POLAK J D15 *CS 7603-704
Water treatment or purification reactor - B/28

*POLA/ 12.12.77 POLASEK M D11 *CS 7708-277
Bread stacking in layers - B/28

*POLA/ 12.12.77 POLASEK M D11 *CS 7708-278
Bread metering system - B/28

PROC 21.06.74 PROCTER & GAMBLE CO A97 D25 E19 =CA 1057-153
Liq. detergent compsn. contg. nonionic and anionic agents - 01996X/02

*PROC 02.04.75 PROCTER & GAMBLE CO A25 C03 D25 E19 (A97 C01) *US 4159-277
Zwitterionic surfactant cpds. - 52443B/28

PROC 13.08.75 PROCTER & GAMBLE CO A97 D25 (A25) =GB 1548-389
Liq. detergent for heavy wash, contg. nonionic and anionic surfactant - 11131Y/07

PROC 30.08.77 PROCTER & GAMBLE CO D22 F07 =BR 7805-607
Diaper for incontinent adults - 18403B/10

PROJ- 17.08.77 PROJEKT CHEM D17 =BR 7805-269
Sugars and opt. cellulose and lignin extn. from vegetable material - 14176B/08

*PROK/ 21.08.75 PROKHUNCHOKOV A A B05 D21 *SU -624-629
Compsn. for removal of dental calculus - 52103B/28

*PROK/ 11.03.78 PROKES B D15 *CS 7801-546
Additional biological purification of waste water - B/28

*PUJO/ 07.10.77 PUJOL J F D16 *FR 2405-407
Replacement drainage door for concrete tank esp. wine vat - 51207B/28

*RADE/ 04.04.77 RADEV S D15 J01 *CS 7702-209
Separator for industrial, aq. effluents purification - B/28

REAP- 04.10.77 LAB RECH API B04 D16 =FR 2405-301
Rapid identification of Streptococcus bacteria - 30151B/16

*RHON 05.10.77 RHONE-POULENC INDUSTRIES D23 E17 *FR 2405-232
Semi hydrogenation of citral and alkyl derivs - 51196B/28

RHWL 21.05.77 RH-WESTF ELEKTRIZIT AG D15 K06 =DS 2723-025
Processing nuclear power station evaporator concentrates - 86394A/48

*RICE/ 19.04.78 RICE D M D15 *ZA 7802-234
Water treatment process - B/28

RICH- 28.01.77 RICH PRODUCTS CORP D13 =GB 1548-358
Food stabilised against microbial decay - 57151A/32

*RIJK- 21.12.77 MACH C RIJKAART BV D11 *NL 7714-214
Continuous rolling of layered dough - 52014B/28

RIKA 11.06.75 RIKAGAKU RES LABS KK D16 J04 =CA 1057-077
Immersion colorimeter for microorganism density measurement - 96628X/52

RITP 06.11.75 SYBRON CORP D12 G03 =GB 1548-309
Degreasing animal waste contg. over 50 percent bone - 18222Y/11

ROHG 15.05.76 ROHM GMBH D18 =DS 2621-697
d salts in aerated acid baths - 88347Y/50

ROQF 17.05.72 ROQUETTE FRERES SA B04 D13 =DS 2324-470
Hydrogenated propoxylated starch hydrolysates - 74987U/49
ROUS 17.10.77 ROUSSEL UCLAF D11 =J5 4067-055
High protein cellular diet food, e.g. wafer - 31894B/17
*RUBH 13.07.77 RUBENSTEIN, HELENA INC D21 *US 4159-318
Oil-free make/up contg. inorganic pigments - 52464B/28
RUTF 22.10.75 RUTGERS RES EDUC FOUND D13 #CA 1057-113
Antioxidant compn from rosemary and sage - 31667X/17
RUTH- 24.11.77 RUTHNER INDUSTRIEAN D15 =SW 7811-922
Refuse and sewage slurry composter - 42805B/23

SAKB 15.06.76 OTSUKA KAGAKU YAKUHIN B03 C02 D23 E13 =DS 2727-044
Bis-epoxy-tetrahydropyranone ethers - 72549Y/41
SALV- 07.10.77 SALVE SA D22 =FR 2405-065
Surgical bandage pack - 29976B/16
SANO 23.06.77 SANDOZ SA B04 D16 =FR 2405-297
Antibiotic S 53210/A-I-III active against Gram positive bacteria - 00456B/01
SANO 13.07.77 SANDOZ SA B04 C03 D16 =PT --68-275
Isolating antigenic glyco:protein from para:myxovirus - 04043B/03
SANY 26.02.73 SANKYO KK B04 D21 =US 4159-317
Mouth- and tooth-cleansing agents - 64984V/37
*SAOF 10.11.77 SANKI ENGINEERING KK D15 *J5 4068-050
Purificn. of small amts. of domestic waste water - 51492B/28
*SAOO 09.11.77 SANKYO ORGANIC CHEM KK A60 C01 D22 E12 *J5 4070-228
Stabilisation of fungicidal bis tri:alkyl tin oxide - 51893B/28
SCHC 08.09.75 SCHERICO LTD B05 C03 D22 =FR 2405-266
Antibacterial desoxystreptamines - 44034X/24
SCHE/ 31.12.77 SCHEICHER H D22 L02 =DT 2759-214
Moulding implants, esp. dental implants, from ceramic masses - 33434B/18
SCHE/ 31.12.77 SCHEICHER H D22 L02 =GB 2011-314
Moulding implants, esp. dental implants, from ceramic masses - 33434B/18
*SCHM/ 00.00.77 SCHMIDT M D11 *DT 2758-643
Honey dispensing machine for waffles - 51057B/28
SCHO- 23.11.77 SCIENTIFIC HOSPITAL B04 D16 #DK 7705-203
Petri dish multi-disc test strips for microbiological research - 38509A/22
SCHO/ 28.10.77 SCHOXI AG D11 =PT --68-710
Whipped foam for cakes - 72923A/41
SCHR/ 23.12.77 SCHREIBER A D15 =NL 7812-371
Compact plant for activated sludge treatment of waste water - 47189B/26
SCHW- 28.07.77 SYNTHESEW SCHWARZHE A96 D22 (A25) =SW 7808-147
Medical dressing prepd. from soft polyurethane foam - 86171A/48
SCOL 03.05.77 SCHOLL MFG CO D15 =ZA 7802-536
Purificn. of polluted industrial effluent esp. from dye works - 65334A/37
SEGK 05.12.75 SEIKAGAKU KK B04 D16 #CA 1057-221
Aq. extn. of kallidinogenase from pancreas - 94063X/50
*SEGK 05.11.77 SEIKAGAKU KK B04 D17 (D16) *J5 4067-100
Hyaluronic acid extn. from cocks-combs - 51408B/28
*SEGK 10.11.77 SEIKAGAKU KK B04 D16 J04 (B02) *J5 4068-290
Determn. of toxin in bacteria in a sample - 51507B/28
*SEIB/ 21.12.77 SEIBOLD A D12 *DT 2759-309
Dehydrated smoked meat products by rapid process - 51090B/28
*SEKI 14.11.77 SEKISUI CHEMI IND KK A97 D15 (D17) *J5 4069-252
Treatment of starch-contg. waste water - 51769B/28
*SERV- 06.10.77 SERVI ETUD REALISAT D13 *FR 2405-010
Draining rack for cheeses - 51174B/28
SMHL 10.01.76 SIMON HARTLEY LTD D15 =CA 1057-431
Vertical axis aerating rotor for waste water - 27204Y/16
SMHL 20.10.77 SIMON-HARTLEY LTD B04 D16 (D13 D15) =BR 7806-903
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08
SNAM 05.07.77 SNAMPROGETTI SPA D17 E13 (D16) =ZA 7803-200
Fructose prepn. from glucose solns. - 01939B/02
SNAM 12.07.77 SNAMPROGETTI SPA D14 =ZA 7803-252
Sterilising milk and other liquid foods with hydrogen peroxide - 04054B/03
SNAM 05.10.77 SNAMPROGETTI SPA C03 D16 (D13) =FR 2405-296
Novel strain of Candida valida yeast - 27860B/15
SNAM 05.10.77 SNAMPROGETTI SPA C03 D16 (D13) =J5 4067-086
Novel strain of Candida valida yeast - 27860B/15
SNLE 09.06.72 STANLEY DENKI KK D15 #J4 9017-050
Ind waste water treatment - 79102U/51
SNLE 09.06.72 STANLEY DENKI KK D15 #J7 9016-135
Ind waste water treatment - 79102U/51
SOLB 23.12.77 SOLCO BASEL AG B04 D16 =NL 7812-295
Hetero-vaccine for treatment of trichomonas syndrome - 47144B/26
SPEC- 17.02.76 SPECO INC D12 =DS 2649-305
Rotary meat grinder with bone-collecting facilities - 10660Y/06
STAL 25.02.74 STALEY A E MFG CO D16 =SW 7900-557
Pullulanase microbiological prodn - 55651W/34
STAM 18.10.77 STAMICARBON BV D13 E14 (D23) =PT --68-649
Pure benzaldehyde prodn. - 34621B/18
STAM- 22.12.77 STAMAG STADLAUER AG D11 =NL 7811-548
Bakery prod. partic crisp biscuit with high bran content - 29793B/
STER 23.12.77 STERLING DRUG INC D22 L02 =DT 2855-368
Beta whitlockite prepn. in solid or porous form - 47146B/26
STER 23.12.77 STERLING DRUG INC D22 L02 =NL 7812-305
Beta whitlockite prepn. in solid or porous form - 47146B/26
*STER= 12.11.77 STERLITAMAK PETROCH A41 D22 E17 *J5 4070-20
Gaseous formaldehyde recovery from aq. soln. - 51887B/28
STER= 23.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05)
7704-013
Methyl-di:tert.-butyl:phenol purification - 49676A/28
STIC/ 01.08.74 STICKL H A B04 C03 D16 =CA 1057-195
Medicaments contg. attenuated chicken pox virus - 83277W/51
*STOR- 21.12.77 STORK FRIESLAND BV D14 J08 *NL 7714-208
Spray drying of viscous food products with atomising nozzles - 520
*STUD 13.02.78 STUDIENGES KOHLE MBH D13 *BE -874-137
Decaffeination of coffee - 50888B/28
SUMO 05.11.77 SUMITOMO CHEMICAL KK A97 B04 D16 =J5 406
Immobilised enzyme carrier of macroporous anion exchange
37364B/20
*SUND/ 22.03.76 SUNDQUIST C T D15 *US 4159-227
Distillation system direct contact condenser - 52417B/28
SUND/ 24.11.77 SUNDBERG H M D16 =NO 7803-967
Composting appts. with upper and lower chambers - B/28
*SUND/ 24.11.77 SUNDBERG H M D16 *SW 7713-285
Composting appts. with upper and lower chambers - B/28
SUSO 25.04.73 SUOMEN SOKERI OY A91 D17 E13 =CS 7402-911
Ion exchange recovery of xylose or xylitol from pentose m
80301V/46
SUSO 25.04.73 SUOMEN SOKERI OY A91 D17 E13 =CS 7703-303
Ion exchange recovery of xylose or xylitol from pentose m
80301V/46
SUZU/ 30.03.72 SUZUKI H D16 (D17) =CS 7206-074
Raffinose conversion - 18180U/13
SVME- 10.05.77 SVENSKA MEJERIER D13 =US 4159-350
Desalting whey using anionic and cationic exchangers - 65363A/37
*SVSL- 22.11.77 SVERIGES SLAKTERIFO D12 *SW 7713-180
Stuffing or meat mixt. moulding appts. - B/28
SWIF 23.05.75 SWIFT AGRICULT CHEM C03 D13 =CA 1057-304
Rapid, controlled prepn. of iso-butylidene-diurea - 91725Y/51

TABA- 09.03.71 FAB TABAC REUNIES D18 =DS 2210-255
Tobacco substitute - 61409T/39
*TAKA/ 05.11.77 TAKAYAMA M D17 F06 *J5 4068-491
Granulated starch prodn. for spraying - 51546B/28
*TAKE 10.11.77 TAKEDA CHEMICAL IND KK B04 D16 *J5 4070-201
Antibiotic C-1364s - 51883B/28
TAKE 18.11.77 TAKEDA YAKUHIN KOGY B02 C02 D16 =GB 2011-3
Macrocyclic antibiotic C-15003 P-4 - 40871B/22
TAKE 18.11.77 TAKEDA YAKUHIN KOGY B02 C02 D16 =GB 2011-3
Macrocyclic antibiotic C-15003 P-3 - 40873B/22
TAKE 30.12.77 TAKEDA CHEMICAL IND KK B04 C03 D16 (D22) =
2855-949
Antibiotic G-6302 prepd. by fermenting Pseudomonas acidop
49005B/27
TAKE 30.12.77 TAKEDA YAKUHIN KOGY B04 C03 D16 (D22) =
2011-380
Antibiotic G-6302 prepd. by fermenting Pseudomonas acidop
49005B/27
TAKS 14.11.77 TAKASAGO PERFUMERY KK D23 E15 =J5 4070-251
Substd. norbornene and norbornane cpds. - 12307B/07
THAL 27.12.77 VEB SCHWERMASCH THALMANN D23 J01 =DT 28
213
Separator for dividing water from organic solvents - 33377B/18
THAL 27.12.77 VEB SCHWERMASCH THALMANN D14 J01 =DT 28
539
Distn. and evapn. plants for chemical and food industries - 33376B/
*THOM/ 09.03.78 THOMAS N F D15 J01 *ZA 7801-378
Water treatment and filtering appts. - 52519B/28
TOBI- 13.09.76 TOBISHI PHARM CO B04 D16 =DS 2741-234
Antileukaemic antibiotic - 04203A/03
TOBI- 13.09.76 TOBISHI PHARM CO LT B04 D16 =US 4159-321
Antileukaemic antibiotic - 04203A/03
*TOEI- 14.11.77 TOEI CHEMICAL KK D17 F06 H07 *J5 4069-663
Lubricating, cutting or spinning oil compsn. - 51844B/28
*TOHS 14.11.77 TOHO RAYON LTD A91 D15 *J5 4069-248
Treating human waste to reduce BOD, COD turbidity and col
51768B/28
TOPP 21.11.77 TOPPAN PRINTING KK D13 =SW 7810-073
Preserving vegetables and fruit during storage - 40838B/22
*TORA 15.11.77 TORAY INDS INC A35 D15 E17 (A25) *J5 4069-253
treatment of poly alkylene glycol-contg. effluent - 51770B/28
TOXN 04.10.77 TOYO BREWING KK B04 D16 =FR 2405-299
Fermentative prodn. of sarcosine oxidase - 30022B/16
*TOXN 28.12.77 TOYO JOZO KK D17 (D16) *GB 2011-397
Amino-sugars obtd. by fermentation of Streptomyces sp. - 51269B/2
TOYM 14.03.73 TOYO BOSEKI KK D15 J04 =US 4159-244
High adsorption efficiency activated carbon fluidized bed - 56759V/
*TOYM 07.11.77 TOYOBO KK B01 D16 *J5 4067-096

07.78 TREJTNAR J D15 *CS 7804-467
for water mixing with ozone - B/28
01.77 TATABANYAI SZENBANYAK D15 =CS 7800-159
e for purifying waste water - B/01
6.04.78 TUCKER C N D22 *ZA 7801-975
splint - B/28

04.03.77 UKR AGRIC MECH ELEC D15 *SU -624-585
al farm manure dewaterer - 52088B/28
5.09.77 UDDEHOLMS AB D15 F09 *SW 7709-924
ment of discoloured waste water contg. chlorine - 52366B/28
8.12.77 ULTRAKUST-GERATEBAU D13 J04 *DT 2758-437
pling bottle with ready-detailed information stored magnetically -
6B/28
04.09.73 UNION CARBIDE CORP D15 =J7 9016-138
vated sludge treatment to eliminate phosphates - 51169W/31
13.10.77 UNION CARBIDE CORP C04 D15 =BR 7806-742
nbined aerobic and anaerobic sludge digestion - 29750B/16
03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) =PT --68-

lable cellulosic casing for food prods. - 37518B/20
23.12.77 UNION CARBIDE CORP C04 D15 M28 =GB 2011-472
noving heavy metals from waste activated sludge - 47205B/26
23.12.77 UNION CARBIDE CORP C04 D15 M28 =NL 7812-502
noving heavy metals from waste activated sludge - 47205B/26
15.12.78 UNION CARBIDE CORP A97 D12 (A11) *BE -872-822
lulosic casing for foodstuffs partic. sausage - 50861B/28
30.05.74 UNILEVER LTD A97 D25 E33 (E34) =CA 1057-152
osphate-free spray-dried textile cleaning compsn. prodn. - 83531W/51
22.12.75 LEVER BROTHERS CO D25 E17 (E12) *US 4159-388
er derivs. of 1-halo-1,1,2,3-propane tetra:carboxylic acid - 52495B/28
28.10.76 UNILEVER LTD D21 =ZA 7706-405
rosol containers esp. for antiperspirant compsns. - 32027A/18
01.11.76 UNILEVER NV D25 E17 (E36) =ZA 7706-455
orage stabilised liq. enzymatic detergents - 33414A/19
01.11.76 UNILEVER NV D25 E19 (E36) =ZA 7706-457
orage stabilised liq. enzymatic detergents - 33415A/19
04.11.76 UNILEVER LTD D13 =ZA 7706-553
ooking fat pieces which can be packaged - 33418A/19
05.11.76 UNILEVER LTD A97 D25 E17 (E16) =ZA 7706-604
ish-washing compsn. with good drainage properties - 33432 A/19
23.11.76 UNILEVER NV B05 C03 D13 =ZA 7706-963
remix compsn. contg. minor essential food ingredient - 36665A/21
L 05.10.77 UNILEVER NV D25 E12 (D21 E17) =FR 2405-295
q. soap prod. contg. specified potassium soaps - 25934B/14
L 06.10.77 UNILEVER NV D18 E11 =FR 2405-302
lourishing tanned leather - 27865B/15
L 18.10.77 UNILEVER NV A96 D22 (A25) =BR 7806-853
articulate absorption material with improved wettability with blood -
1891B/17
IL 15.11.77 UNILEVER NV D13 #ZA 7706-808
ce cream compsn. contg. caroub and/or tara gum - 25249A/14
IL 22.12.77 UNILEVER NV D25 E34 =NL 7811-971
Granular bleach activators - 49431B/27
IL 22.12.77 UNILEVER NV A97 D25 E19 =NL 7812-334
Stable liq. detergents with low hydrotrope content - 49430B/27
IL 22.12.77 UNILEVER NV A97 D25 E19 (A25) =NL 7812-439
Aq. detergent compsn. esp. for dish washing - 47208B/26
IIL 03.01.78 UNILEVER NV D13 *BE -873-291
Smoke liquid concentrate for food flavouring - 50867B/28
NIL 09.01.78 UNILEVER NV A97 D25 (A25) *BE -873-366
Aq. liq. detergent compsn. free from active salt additives - 50886B/28
NIL 02.01.79 UNILEVER NV D13 =GB 2011-241
Smoke liquid concentrate for food flavouring - 50867B/28
NIR 11.03.75 RHEINISCHE BRAUNK C03 D15 =DS 2510-447
Lignite based soil improving agents prodn. - 04014Y/03
NIT- 27.12.77 UNITEK CORP D21 M26 =GB 2011-469
Dental gold platinum alloy - 06018B/03
NIX 10.10.77 UNISEARCH LTD B01 D23 =FR 2405-292
Wool wax lanolin prepn. from wool degreasing extract - 14214B/08
NIX 21.10.77 UNISEARCH LTD A88 D15 J01 K05 =BR 7806-967
Anisotropic, synthetic, multilayer, molecular sieve membrane -
35640B/19
NVO 23.03.67 UOP INC D25 E14 =DS 1768-021
Alkylation of benzene with olefin yielding mono alkylate - 04532R/04
NVO 25.11.77 UOP INC A88 D15 E36 J01 =DK 7805-253
Gas separation membrane with semipermeable thin film - 45910B/25
NVO 28.12.77 UOP INC D15 =DT 2856-516
Appts. for conditioning demineralised brackish or sea water - 40491B/21
RAL= 24.01.77 URALS BR THERM TECH D15 *SU -624-066
Electric power-station condensate deaerator and supply unit - 52027B/28
JSDA 30.01.78 US SEC OF AGRICULTURE D13 *US 4159-351
Mixed bean salad prodn. - 52477B/28
JSMC 19.10.77 USM CORP D17 =BR 7806-895
Sugar cane crushing mill - 33608B/18

UTAH 16.09.74 UNIV OF UTAH A96 B04 D16 J01 =CA 1057-180
Membrane with specific reactivity for e.g. proteins - 24421X/14
*UVEN= 28.02.74 UKR VENDING EQUIP D11 *SU -624-589
Dough blanks shaper for biscuit mfr. - 52089B/28
UYAL- 22.09.75 UNIV OF ALABAMA A96 B04 D16 =CA 1057-178
Substrate soln. for carboxylic ester hydrolase determn. - 36034Y/20
*UYCH= 01.03.77 CHUVASH UNIV D23 L02 *SU -624-895
Mixt. for building applications - 52213B/28
UYFL- 19.05.77 UNIV FLORIDA D22 L01 M13 =US 4159-358
Metal-coated biologically active glass - 78321A/44
UYMA- 20.10.77 UNIV MANCHESTER B04 D16 (D13 D15) =BR 7806-903
Biological purificn. of waste water, fermentation of yeasts etc. - 14223B/08

VENT- 22.11.77 VENTURATOR LTD D15 J02 =NO 7801-958
Submerged gas injector to aerate waste water etc. - 47752A/27
VILJ/ 06.09.77 VILJANMAA A K D18 =BR 7805-767
Stretching hides in frames for drying - 04115B/03
VIPO- 05.03.79 VIPONT CHEMICAL CO D21 #BE -874-607
Oral compsns. contg. Sanguinaria canadensis extract - 27753B/14
VOLP/ 26.06.78 VAN OLPHEN G C D16 =ZA 7803-631
Treatment of centrifuged grape juice with gas under pressure - B/23
*VONA/ 12.01.78 VONASEK F D21 *CS 7800-237
Toilet soap - B/28
VROL 17.05.76 VON ROLL AG C03 D15 =CA 1057-128
Disposal of industrial effluent contg. salts and organic matter - 66940Y/38

WAFI- 03.07.74 WAFILIN BV D15 F04 J01 =CA 1057-207
Non-woven osmosis tube - 07852X/05
WEIS- 21.12.77 GEB WEISS KG D16 =NL 7804-718
Organic garbage composting plant - 44109B/24
WESS 25.11.77 WESTFALIA SEPARATOR AG D13 #DK 7705-228
Appts. for sepg. fruit pulp from seed kernel and skin - 17994B/09
WESS 04.10.78 WESTFALIA SEPARATOR AG D13 #PT --68-622
Appts. for sepg. fruit pulp from seed kernel and skin - 17994B/09
*WICH/ 24.11.76 WICHTERLOVA L D21 *CS 7607-605
Teeth treatment compsns. prepn. - B/28
WIST- 15.06.77 WISTAR INSTITUTE B04 D16 =ZA 7803-261
Viral antibody prodn. using hybrid cells - 74495A/42
WORL- 21.11.77 WORLD POTATO CORP D13 =SW 7811-976
Precooked potato prods. - 24002B/13

*YAMA- 07.11.77 YAMAHATSU SANGYO KK A96 D21 (A14) *J5 4067-039
Hair colouring cosmetic compsn. - 51395B/28
*YAPO= 01.03.76 YAPOVENY AGRIC IND D16 *SU -624-914
Sherry prodn. line control - 52232B/28

*ZAHR/ 29.06.77 ZAHRADKA V D15 *CS 7704-270
Semi-biological purification of aq. effluents - B/28
*ZAPO= 04.03.77 ZAPOROZHE AGRIC EQUIP D15 *SU -624-585
Animal farm manure dewaterer - 52088B/28
*ZEME/ 09.01.78 ZEMEK J D16 *CS 7800-153
Pure phosphorylase enzyme isolation - B/28
*ZEME/ 13.01.78 ZEMEK J B04 D16 *CS 7800-248
Cross-linked protein prepn. - B/28
*ZVON- 22.11.77 ZVONKO PESTELIC D14 *SW 7713-175
Food portions shaping appts. - B/28
ZWIA- 09.05.75 ZWIAZKU SPOLDZ MLEC D15 =CS 7603-778
Basin for activated sludge treatment - 97410X/52

E
0 R01
2 S05
9 B28

DE
52 R04
21 S16
67 S37
09 U06
26 V43
04 A26
21 B28

D
701 S10
701 B28

DJ
969 S30+
485 U18
518 B28

DJ
-315 S36
-315 B28

BCD
-442 S45
-379 S48
-237 S49
6-548 T01
3-038 T12
9-207 T27
2-659 U12
8-043 U47
3-358 Y06
2-179 Y38
1-237 B28

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03-042 S48
21-565 S49
44-518 V04
65-772 W32
21-565 W34
78-099 X37
65-772 B28+

T D
201-070 T33+
014-077 T34
021-379 T43
123-321 T52
846-300 V46+
381-352 W04
381-351 W04+
027-631 X37
201-070 X52+
016-134 B28

-T D
2210-255 T39
2129-458 U06
1331-914 U39
3867-951 W10
-560-022 W17
-966-381 W19
2210-255 B28

5-U D
-787-203 U07+
2238-549 U11
7205-778 U27
7214-068 U40
7300-155 U43
2174-815 U51
-101-697 V08
9000-494 V11
7300-156 V40
3875-316 W15+
1423-129 X05+
1424-785 X07
-468-440 X15
-573-469 X19
-993-385 X32
7207-830 X36
7206-982 B28

80-U D
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2239-210 U43
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S 7206-074 B28

21488-U D
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OE 7208-344 W23
CA -992-379 X30
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23071-U ABCD
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BE -789-758 U18
ZA 7206-255 U27
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J4 8061-611 U45
SF 7402-189 V49+
DL -105-722 V32
OE 7208-385 W15
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US 3965-133 X27+
CA -991-544 X28+
US 3969-395 X30+
OE 7404-959 X40
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CH -590-891 Y36+
US 4056-672 Y45+
DT 2265-386 A03+
DK 7704-192 A04+
DS 2247-021 A51+
NL 7901-163 B28+

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J7 9014-075 B26
DS 2253-896 B28

35183-U AD
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CA -981-396 X04+
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J7 9011-000 B23
J4 8096-699 V08
J7 9015-920 B28

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CH -560-170 W17+
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US 3893-900 W29
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DS 2324-795 Y31
J4 9017-050 B28+
J7 9016-135 B28+

03583-V BD
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J7 9015-708 B28

24948-V D
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56759-V DJ
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GB 1453-684 X44
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CA 1057-154 B28

17830-W D
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GB 1411-838 W44
CA -996-813 X40
DS 2359-672 B28

24155-W D
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GB 1450-671 X39+
NL 7503-239 X41+
CA 1057-218 B28+
CA 1057-219 B28+

26176-W BCDE
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GB 1420-909 X03
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DS 2445-674 B28

29076-W BCDE
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NL 7413-589 W18
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SW 7412-234 W23
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IL --45-833 A33+
CH -603-664 A37+
CH -605-979 A48+
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51169-W D
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DS 2442-031 Y19
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CA 1034-264 A29
J7 9016-138 B28

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DK 7500-613 W48
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IT. 1029-805 B25
SW 7900-557 B28

79144-W D
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DS 2530-820 B28

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OE 7505-989 Y44
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NL 7506-332 W51
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SW 7506-106 X08
FR 2275-552 X15
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NL 7507-372 X02+
DT 2527-101 X03+
FR 2275-551 X15+
J5 1033-104 X19+
GB 1503-344 A10
US 4105-592 A51+
CA 1057-153 B28+

07852-X DFJ
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BE -830-945 X07+
SW 7507-551 X09+
NL 7412-910 X16
FR 2276-860 X17+
BR 7504-209 X30+
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GB 1519-991 A31+
SW 7805-442 A39+
CA 1057-207 B28+

11594-X D
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FR 2279-382 X20
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GB 1512-853 A22
DS 2532-934 B28

19203-X D
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ZA 7602-660 Y19+
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GB 1491-501 Y45
CA 1057-429 B28+

24421-X ABDJ
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SW 7510-337 X19
FR 2284-632 X26
US 3966-580 X28
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ZA 7505-903 X37
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SW 7511-094 X21
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FR 2286-794 X29
J5 1084-790 X36
DS 2447-021 X44
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GB 1517-323 A28
CA 1057-272 B28

31667-X D
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CA 1057-113 B28+

44034-X BCD
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NL 7513-737 X25+
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SW 7513-330 X33+
DT 2552-799 X34+
DK 7505-313 X35+
SF 7503-318 X35+
FR 2292-482 X41+
PT --64-527 X44+
ZA 7507-397 X48
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US 4000-262 Y02+
J5 2000-244 Y07+
J5 2097-942 Y39+
OE 7508-950 Y44
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GB 1528-930 A42+
CA 1048-020 B08+
NO 7900-908 B22+
FR 2405-266 B28+

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BR 7602-452 X47
SW 7604-606 X49
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SF 7601-075 Y04
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PT --65-028 Y17
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GB 1548-377 B28

70581-X AD
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DS 2507-353 B28

70749-X D
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NL 7602-004 X38
J5 1110-856 X46
DK 7600-818 X47
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J7 9015-549 B28

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J7 9015-824 B28

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J5 2006-661 Y09
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SF 7601-948 Y12+
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SW 7607-633 Y23+
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GB 1499-717 A05+
CA 1054-436 B23+
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J7 9015-830 B28

88460-X D
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US 4158-903 B28+

94063-X BD
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DK 7505-577 Y34+
FR 2334-689 Y39+
DT 2559-588 Y45+
DK 7704-475 A05+
FR 2350-356 A08+
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GB 1522-359 A34+
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96503-X BD
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BR 7603-715 Y07
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SW 7606-448 Y04+

HU H002-178 Y07+
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SW 7607-107 Y07
DK 7603-024 Y12
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04120-Y D
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07995-Y AD
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10660-Y D
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FR 2320-983 Y21+
GB 1548-389 B28+

18222-Y DG
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DT 2649-196 Y21
FR 2330-323 Y32
GB 1548-309 B28

20335-Y DE
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J5 2036-571 Y18
FR 2323-638 Y24+
J5 2070-559 Y30
DL -128-059 A06+
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J7 8043-730 A50
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27116-Y ADF
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SW 7710-024 A17+
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DK 7804-625 B23 +
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BR 7806-967 B28 +

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GB 2011-268 B28 +

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DK 7805-253 B28

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47147-B D
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GB 2010-657 B27 +
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47180-B D
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47189-B D
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NL 7812-371 B28

47205-B CDM
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DT 2855-690 B27+
NL 7812-502 B28+
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GB 2010-892 B27+
NL 7812-439 B28

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GB 2011-380 B28

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49016-B BCDE
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50934-B CD
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DT 2757-930 B28+

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51088-B D
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51099-B D
DT 2800-184 B28

51110-B AD
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51143-B D
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51165-B AD
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51180-B ABD
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51181-B ABD
FR 2405-069 B28

51184-B DHJ
FR 2405-082 B28

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51196-B DE
FR 2405-232 B28

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51207-B D
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51260-B D
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51262-B DEJ
GB 2011-372 B28

51264-B DE
GB 2011-374 B28

51266-B DEM
GB 2011-383 B28+

51269-B D
GB 2011-397 B28

51271-B CD
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51272-B DE
GB 2011-403 B28
DT 2757-278 B28

51279-B BD
GB 2011-425 B28
DT 2856-410 B28

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51399-B D
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51492-B D
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51603-B DEJK
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51768-B AD
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51770-B ADE
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51819-B DEJM
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51820-B DEJM
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51821-B ACD
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51826-B DJ
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51828-B AD
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51844-B DFH
J5 4069-663 B28

51883-B BD
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51886-B BDE
J5 4070-208 B28

51887-B ADE
J5 4070-209 B28+
BR 7707-788 B26

51893-B ACDE
J5 4070-228 B28

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J5 2038-040 B28

51951-B D
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J4 9031-708 B28

51970-B CD
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J4 8048-256 B28

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52014-B D
NL 7714-214 B28

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52097-B D
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52099-B DL
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52102-B AD
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52104-B AD
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52110-B BD
SU -624-636 B28

52213-B DL
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52232-B D
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52233-B AD
SU -624-915 B28

52337-B D
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52338-B D
SU -625-140 B28

52340-B ADJ
SU -625-150 B28

52366-B DF
SW 7709-924 B28
SW 7709-924 B16

52381-B D
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52387-B D
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52405-B D
US 4159-210 B28

52417-B D
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52418-B D
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52428-B D
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52430-B D
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52432-B CDEH
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52433-B CDEH
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52443-B ACDE
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52462-B D
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52463-B AD
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52464-B D
US 4159-318 B28

52475-B BDE
US 4159-347 B28+

52476-B D
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52477-B D
US 4159-351 B28

52495-B DE
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52521-B AD
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ZA 7802-342 B20

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7B D13
3B D25
6B A97D25

88B D13
53B D21
06B D13

87B A41D22E17

B D16
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260B A14D21

088B D18E33
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799A A96D21

4176B D17
8418B A25D25
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4115B D18

78628 A97D14
1945B A25D21
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B D13
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35640B A88D15J01K05

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42688B D14P7+R1

57
12639A D12
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48434X A97D13
03935Y D13P1+R1
57528Y D11
41731Y D13
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2 83531W A97D25E33
3 01996X A97D25E19
09218W D25M14
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0 24421X A96B04D16J01R1
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7 07852X D15F04J01+Q6
8 24155W D17
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1 94063X B04D16
6 83268Y D13P1+P6
2 30126X D15J01
4 91725Y C03D13
9 19203X D15P3
0 81486W D15
1 27204Y D15

806
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74 18180U D16
82 09425U D16

7305
374 03583V B02D16

7306
965 30755V D16

7402
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267 70749X D15+Q4

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704 B D15

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• 806 B D15

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• 248 B B04D16

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CS 7804
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• 930 51004B D25P2

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• 616 51215B D13

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ZA 7803
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Section D:

FOOD
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ABSTRACTS

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COUNTRY	PUB. DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	10 JUL - 16 JUL 79	873,371 - 873,515
-Non Delayed	2 JUL 79	874,699 - 874,880
BRAZIL	3 JUL 79	7,704,878 - 7,901,992
CANADA	3 JUL 79	1,057,451 - 1,057,900
SWITZERLAND	15 JUN 79 + 29 JUN 79	607,872 - 608,167 611,481 - 612,054
DENMARK	25 JUN 79	7,705,299 - 7,900,024
W. GERMANY		
-DAS	12 JUL 79	1,437,771 - 2,845,610
-OLS	12 JUL 79	2,732,918 - 2,901,163
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HUNGARY	28 JUN 79	H002,442 - H002,449 T016,652 - T016,767
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-Reissues	3 JUL 79	Re30,040 - Re30,041
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PCT	12 JUL 79	7,900,388 - 7,900,441

*Printed patents actually published late June, 1979

**Includes numbered Basics from Weeks B19 and B20

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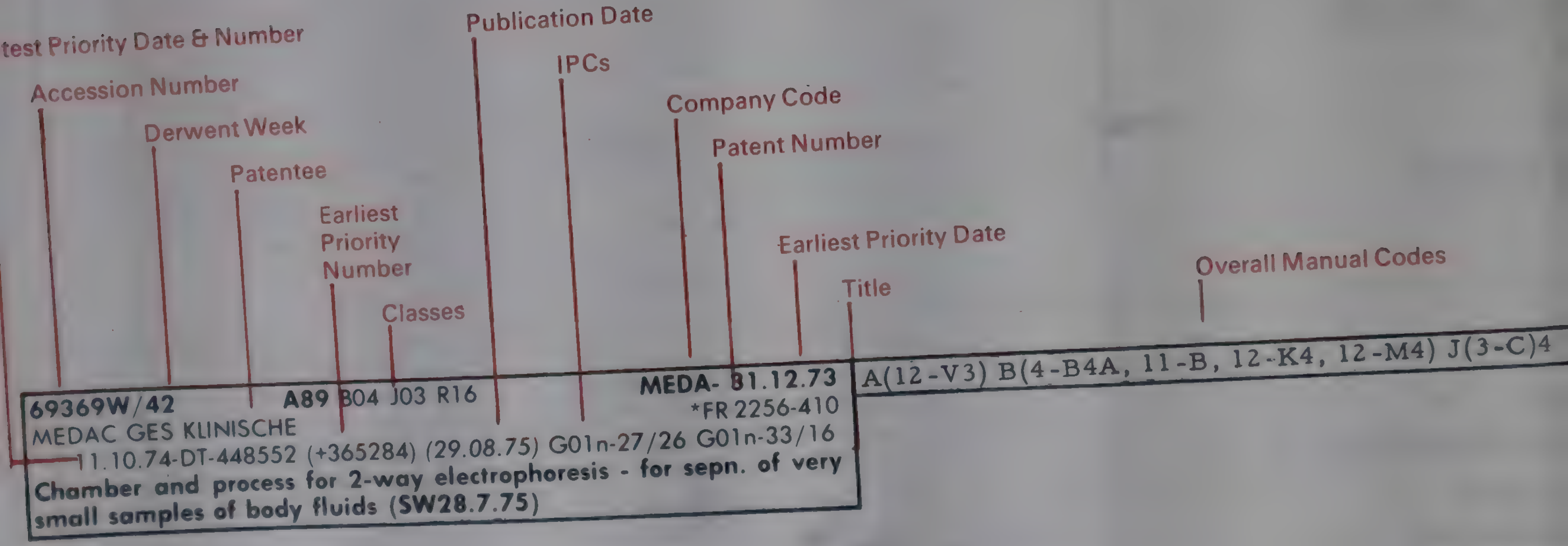

69369W/42 **A89** B04 J03 R16 **MEDA- 31.12.73** A(12-V3) B(4-B4A, 11-B, 12-K4, 12-M4) J(3-C)4
MEDAC GES KLINISCHE *FR 2256-410
11.10.74-DT-448552 (+365284) (29.08.75) G01n-27/26 G01n-33/16
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)

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D1: FOOD; FERMENTATION

D11 : BAKING

D11 25791U/19 =DS 2152-11
r an instant torte base - of sugar coated bread/cake crumb
drophilic binder
VELACK O NACHF (SUW -) 20.10.71-DT-152118
*12.07.79) *DT2152-118 A21d-13/08*

mb compsn. for 'instant' bakery products, esp. flan , is made by mixing 0.3-0.8 pts. wt. sugar with 1 p rumb, heating till the sugar melts onto the crumb, ng till the required colour has been attained and then ng the product with a hydrophilic binder based on star- rragbeen and/or alginates.

his facilitates packaging and transport and the selection e flan base size required. 20. 10. 71 as 152118 (3pp92)

D11 45955A/26 =DS 2656-56
g oven with cooling air conduits - has fume discharge in
ng air outlet above casing
OSCH-SIEMENS HAUSG 14.12.76-DT-656565
*74 (12.07.79) *DT2656-565 F24c-15/20*

ush-to-wall fitting electric cooker is surrounded betw its heat insulation and the carrier frame by cooling air nels. The cooling air is collected by a fan across the top of the muffle and blown into a divergent shallow nel across the oven top which emerges above the oven . The vapours from the oven are extracted by a pipe ch terminates in the wide part of the shallow channel re a deflector plate directs the air stream past its que outlet opening.

This removes vapours effectively without risk of their densation. 14. 12. 76 as 656565 (4pp39)

RN D11 49266B/27 =EP ---2-70
tideck baking oven - with cut/off valve for one deck coupled to
ught control throttle in waste gas flue
WERNER & PFLEIDERER 23.12.77-DT-757618
*+Q73 Q74 (11.07.79) *DT2757-618 A21b-01/40 +F23n-03/02*
F24c-15/32

S: E(BE, DT, FR, GB, IT, NL).

multi-deck baking oven with circulating hot gas is uipped with a shut-off device for the gas flow to one ck and with a throttle valve for the induced draught ntrol. Shut-off and throttle valve are actuated by a mmon linkage in such a way that opening of the shut f valve closes the throttle, and vice versa.

Provides a simple way of adapting the combustion nditions to the connection of disconnection of one deck. .12.78. as 101607 (8pp39).
G) ISR: FR-576945; DS-139367.

AKP ★ D11 53118B/29 ★GB 1548-958
atch preparing dough for biscuit making - the ingredients being
eheated to reduce the batching time
BAKER PERKINS LTD 12.10.76-GB-042352
(18.07.79) A21d-08/02 B01f-07/02

atches of dough for biscuit making are prepared by pre- ating the ingredients to such a degree that the dough aches the required condition in five minutes or less. ref. only the liq. ingredients such as the water or a soln the sugar in water, are preheated. A quoted preheating mperature for dough suitable for making Rich Tea and ce biscuits is about 30°C.

The short batching time enables more batches to be ade and ensures dough from a fresh batch will be avail- ble at short regular intervals. 11.10.77 (7pp525).

HIM- ★ D11 53252B/29 ★J5 4070-447
reparing noodle-like foodstuff - by adjusting moisture content of
ough contg. rice powder, shaping dough and steaming for
elation
SHIMADAYA HONTEN KK 10.11.77-JA-135129
(06.06.79) A23l-01/16

(a) adjusting the moisture content of powder and $<$50 w/w% of starch or starchy material other than rice powder, of which 1-40 (3-25) pts. wt. is either previously α-lyzed dry starch or starchy material or hydration-heated pasty starch or starchy material, to 35-55 (40-50) w/w%, (b) forming the dough into the form of the final prod. or into a flat sheet which can be cut into a final prod; and (c) steaming for gelation.

The dough can be readily formed into noodles using a conventional noodle-preparing machine. 10. 11. 77 as 135129 (4pp5)

SHIM- ★ D11 53253B/29 ★J5 4070-448
Noodle-like food prepn. from rice powder and starch - where tackiness of dough obtd. is reduced by incorporating additional starch powder, for simplified processing
SHIMADAYA HONTEN KK 10.11.77-JA-135130
(06.06.79) A23l-01/16

The method comprises (a) adding 40-85 pt. wt. of warm water at temp. above the gelatinising temp. of starch, in 40-90 pt. wt. of the mixt. composed of 50w/w% of rice powder and balance% of starch and/or starchy material, (b) stirring the mixt., (c) cooling the mixt. to below the gelatinising temp. of starch, (d) adding 60-10 pts. wt. of the powder selected from starch and/or starchy material, (e) kneading the mixt., (f) forming thus obtd. dough in the form of final prod. or the flat plate which can be made to final prod. by simply cutting and (g) steaming for gelation.

The stickiness of the dough obtd. in (b) can be suppressed by combining the additional powder as in (d), and the dough can be easily processed to noodle using conventional noodle-preparing machine without spreading edible oil or powder. 10. 11. 77 as 135130 (3pp5)

SHIM- ★ D11 53254B/29 ★J5 4070-449
Prepn. of noodle-like food which retains softness - by treating mixt. of water, alpha-amylase rice powder and starch with steam
SHIMADAYA HONTEN KK 10.11.77-JA-135131
(06.06.79) A23l-01/16

The method is characterized compsns. (a) combining 85-120 pts. wt. of water and of α-amylase with 100 pts. wt. the mixt. of $>$50 pts. wt. of rice powder and below 50 pts. wt. of starch and starchy material, (b) spreading the obtd. thick emulsion in smooth flat vessel so that final product can be obtd. either directly or by simply cutting, (c) keeping the spread at $\sim$70°C for $>$ 30 seconds and (d) steaming at $\sim$ 100°C for $>$ 60 seconds.

Noodle-like food which can be kept soft for long time and can be taken without hydrating and heating is provided. 10. 11. 77 as 135131 (4pp5)

SHIM- ★ D11 53255B/29 ★J5 4070-450
Noodle-like food prepn. from rice - by adding hot water to mixt. of rice and starch, partially gelatinising shaping and steaming for gelatinisation
SHIMADAYA HONTEN KK 10.11.77-JA-135132
(06.06.79) A23l-01/16

Method comprises (a) adding 40-85 pts. wt. of hot water having a temp. above the gelatinising temp. of starch in 100 pts. wt. of the powdery mixt. of $>$50 pts. wt. of rice powder and $<$50 pts. wt. of starch and/or starchy material other than rice powder, (b) stirring the mixt. to gelatinise it partly, (c) forming the mixt. either in the form of final prod. or in the form, from which final prod. can be obtd. by simply cutting it and (d) steaming it for gelatinising.

Noodle-like food similar as boiled noodle is prepd. from rice powder using conventional noodle-preparing machine. 10. 11. 77 as 135132 (3pp5)

NIKK- ★ D11 53256B/29 ★J5 4070-451
Starting material for noodles - comprises corn starch, gluten, natural gum, table salt and flour
NIKKEN FOOD 12.11.77-JA-135904
(06.06.79) A23l-01/16

Corn starch is mixed with gluten or other viscous material, natural gum or other paste material, and a small amt. of table salt, and is then further mixed with flour in an amt. of half as much as the former mixt. The material is prepd. cheaply and easily. The resulting noodles have as good a taste and flavour as conventional noodles.

In an example, 45 pts. corn starch, 10.13 pts. hydrous glutene, 0.17 pts. gum, 28 pts. water, 1.7 pts. table salt and 15 pts. flour were mixed and blended. 12.11.77 as 135904 (2pp22)

SHIM- ★ D11 53257B/29 ★J5 4070-452
Prepn. of noodles contg. rice powder - includes immersing rice powder in water and adding flour in specified quantities
SHIMADA-YA HONTEN K 17.11.77-JA-137258
(06.06.79) A23l-01/16

In preparation of noodles except for Soba, rice powder is previously immersed in ⩾ 2 times its volume of water and the treated rice powder is, with or without the immersing water, added to flour in such an amount that rice powder is 1-50 wt.% relative to the flour, followed by conventional method for preparing of noodles.

The immersion of rice powder in water is conducted at 0-60°C for ⩾ 10 minutes. In the immersing water, there may be incorporated enzyme such as protease, cellulase, hemicellulase, amylase, etc. and also acidic substance, alkaline substance and antibiotic agent. The rice powder immersed in water is pref. subjected to homogenization before addition to the flour.

Rice powder can be used effectively in the preparation of noodles without impairing the taste and flavour of the noodles, and thus powder of old rice can effectively be utilised. 17.11.77 as 137258 (4pp22)

KANE- ★ D11 53719B/29 ★J5 4073-144
Packaged chinese noodles prepn. - by spreading water on raw noodle, steaming, placing in bags with high gas barrier resistance, adding ethanol and sealing bags
KANEBO SHOKUHIN KK 24.11.77-JA-141259
(12.06.79) A23l-01/16

Method comprises (a) spreading water in an amt. of ⩾5 (7-40) w/w% on the surface of the raw noodle of flour and starch, (b) steaming with the steam having pressure of 0.5-1.5 kg/cm^2 to moisture content >40 (45-50) w/w%, (c) putting the obtd. steamed noodle in bags prepd. of a material showing high gas barrier resistance, (d) dropping ethanol in an amt. of 0.5-4 (1-3) w/w% on it and (e) sealing the bags.

Bagged chinese noodle which is excellent in mould-proof property and retrogradation resistance and can be preserved for long time stably, is prepd. The chinese noodle is cooked easily in a short time by boiling, frying, etc. and the cooked noodle is excellent in taste and texture. 24.11.77 as 141259 (5pp5)

MORA- ★ D11 B/29 ★RU --66-845
Discontinuous belt conveyor for bakeries
INTR MORARIT PANIFI 09.11.73-RU-076594
(30.10.78) A21c-09

SHEF/ ★ D11 53962B/29 ★SU -603-161
Baking bread rolls using infrared heating - involves first heating the centre parts and then the peripheral parts as the rolls move through the oven
SHEFER I A 04.01.76-SU-310001
(25.03.79) A21d-08/06

Method for baking food prods. uses a series of infrared heaters which heat up different part of the baked objects. Bread rolls can be baked in this way by initially exposing the centre parts to the irradiation, and then heating the peripheral parts.

The process is done in two cycles. Max. radiation is directed perpendicularly downwards to remove the moisture in the form of steam from a deep layer, without exposing the peripheral parts. The intense sepn. of the moisture cools the surface, and the heat coming out during the intervals between the articles heats up the surrounding air. Secondly, the edge parts of the dough pieces are irradiated as the rolls move out of the field of greatest radiation, so that the energy is transferred from the point of greatest heating to the points of least heating, i.e. along a
direction of operation. Subsequent cycles heat up
lesser sections by radiation from short-wave irr
sources. The temp. variation proceeds in eleme
stages, i.e. in a continuous series of uniform sta
beginning to end.
Shefer I.A., Bul. 11/25.3.79 4.1.76 as 310001 (

ALTO- ★ D11 54329B/29 ★U
Tined muffin splitting device - with guide cams actuable
the tines to prevent splitting
ALTO CORP 08.11.78-US-958797 (01.11.77-US-847662)
A88 P62 (03.07.79) B26d-03/28 B26d-04/76

A muffin splitting device includes a conveyor upon
muffins to be split are fed between a pair of tined
arrangements. Each arrangement includes an en
chain which drives tine carrying carriages alongs
conveyor. A cam means deflects tines carried by
riages laterally through muffins on the conveyor a
withdrawable to allow the carriages to proceed wi
the tines being deflected if unsplit muffins are to b
Pref. the tine bar is of ultra high mol. wt. polyet

Split or unsplit muffins can be produced by a m
ustment to the same apparatus. 8.11.78 as 95879
(11pp525)

AMMA ★ D11 54343B/29 ★US
Horizontal dough mixer with cooled walls - the walls
expansion passages of increasing cross/sectional area
AMF INC 29.08.77-US-828388
Q75 Q78 (03.07.79) F25b-17 F28f-03/12 F28f-13/08

A dough mixer of the type in which the dough is mi
paddles in a trough having a curved bottom wall, t
ght sidewalls, and two end walls, is cooled by for
pansion passages for a liquid coolant in the walls.

The coolant enters one end wall at its centre an
els in a spiral path of increasing cross-sectional a
periphery. The coolant flows from there along si
ssages in the side walls to the other end wall. It e
the other end wall through a multi-channeled inlet
vels in an arc defined by channels of increasing cr
tion to an outlet. 29.8.77 as 828388 (7pp525)

PION- ★ D11 54351B/29 ★US
Domestic bread mixer and kneader - powered through
gearing by a low horsepower high speed motor
PIONEER ASSOC 18.03.76-US-668227
(03.07.79) B01f-07/16

A domestic appliance for mixing and kneading amo
dough suitable for home baking comprises an open
vessel supporting a motor driving a dough hook ext
down into the vessel.

The motor is a universal type AC/DC series wo
uction motor rated at 1/10-1/15 horsepower with a
ded speed of about 8000 rpm and a speed at full loa
more than 5000 r.p.m. The motor drives the hook
a reduction gear arrangement of at least 80 to 1 to
speed to the hook of about 75 rpm when mixing, an
50 rpm when kneading.

The appliance is suitable for domestic use with
grain mills now available. 18.3.76 as 668227 (6pp

STIC/ ★ D11 54431B/29 ★US
Fried taco shell prodn. - by folding tortilla over a former
frying it
STICKLE D T 13.01.75-US-540709 (01.02.72-US-222493)
(03.07.79) A21d-10

Fried taco shells are made by locating tortillas on
web, locating a plunger on each tortilla, folding th
over the plunger by deforming the web, and deep f
the so folded tortillas. Pref. a moving mesh web
carries plungers which after tortillas have been pl
jacent them on the web are tilted to engage the tort
the same time as the web is folded to drape over th
ers. 13.1.75 as 540709 Div. ex. 3785273. C.i.p.
(+20.8.73-US-390164) (9pp525)

See Also

D16 DS 26:4348 D16 US 4160040

D12 : MEAT ; FISH PROCESSING

D12 52535B/29 ★BE -873-39
minced meat prods. - comprises partially soluble modifie
ids material
FFER CHEMICAL CO 12.01.78-US-868954
07.79) A23j

neat prods. are made from minced meat with a bi mt. of a partially soluble modified whey solids ma
The whey solids material is made by a pptn. pro- which either (1) a divalent metal ion is added to a whey soln. and the pH is adjusted to 6. 8 to form a or (2) the pH of a cheese whey soln. contg. $\geq$ 20% eese whey is adjusted to 6. 0 - 8. 0 to form a ppte. of dified whey solids. The modified cheese whey sol- f. contain 23-54% lactose, 24-60% minerals and protein.

modified whey solids are useful fillers in minced rods. such as sausages, luncheon meat, pies, etc. re economical in use and do not produce the variat- flavour encountered when using skimmed milk pow- in prior art processes. 11. 1. 79 as 873396 (14pp)

D12 52675B/29 ★DT 2759-005
sausage skin packaging - on split plastic tubes saves labou
sfer to sausage machine spout
HALTER GMBH 30.12.77-DT-759005
(12.07.79) A22c-13/02

al skins are prepared for attachment to a sausage g machine by applying them in a corrugated shape plit tube. The tube consists of an elastic material s rigid polyethylene and has a longitudinal slot with pping ends, when the tube is not fully expanded. e skins can thus be supplied ready for application to lling spouts of the stuffing machines so that much al labour for these operations can be saved. 30. 12. 77 9005 (11pp39)

★ D12 52826B/29 ★DT 2853-629
nining the fat content in meat products - by polychromatic tion in three energy stages and measuring attenuated ity
RTRIDGE PAK CO 06.01.78-US-867364
R16 (12.07.79) G01n-23/06 G01n-33/12

volume ratio of a two-component material, e.g. the ontent of a minced meat product, is determined by ing beams of polychromatic (X-ray) radiation in successive applications with different energy level gh the material. The attenuated beams are measured egards intensity and the volume ratio is found from rated graphs.

his is a quick, accurate and non-destructive method h requires no smoothing or special preparation of a ple. It is equally suitable for fresh or frozen meat and t already packed in containers or bags. 12. 12. 78 53629 (29pp39)

N/ ★ D12 53053B/29 ★FR 2405-653
dling device for cleaving of carcasses - operated by a single on by means of hydraulic cylinders
RUWANT G 11.10.77-FR-031109
(15.06.79) A22b-05/06

carcass is hung from the suspension bar which in turn ttached to the device and the trolley. The spacing arms rranged so that teeth at the ends of the arms are spa- at the same distance apart as the tendons of the animal. s movement is effected by the control device which is in reach of the operator. The carcass is then suspen- by the arms of the device and the suspension bar is oved. It is again loaded at the slaughtering post with ther carcass.

The arms are drawn apart as the carcass is split; they brought together again as each half is placed on a nched hook for removal.

The carcass can be handled by a single person, by the of the device, fromthe time it arrives on its suspen- g rod until it is moved away on hooks. The arms can be

031109 (12pp519)

PRZE- D12 19714A/11 =GB 1548-467
Machine to extract edible muscles from crustacea - esp. antarctic krill fresh or frozen on ship or shore
PRZEDSIEBIORSTWO PO (DALM-) 03.11.76-PO-193450
*(18.07.79) *BE-860-439 A22c-29*

Appts. for shelling crustacea, partic. krill, comprises a rotary table with an annular array of cutters and bars annularly around the cutters, so that crustacea are ejected by centrifugal force to have the shells cut and then hit the bars when the shells are detached from the bodies, giving a mixt. of meat and shells for subsequent sepn.

The cutters are pref. provided by a ring with downward cutting edges in saw-tooth configuration. The bars pref. have chamfered ends, and angled outer bars deflect the product downwardly to a collector. The deflector bars pref. end $\geq$20 mm below the table. 2. 11. 77 as 045495(9pp)

WILS- D12 89445Y/50 =GB 1548-819
Untangling of intestine from an animal - by placing one end between two moving belts
WILSON FOODS CORP 24.05.76-US-689080
*(18.07.79) *NL7705-225 A22c-17/14*

A strand of intestine is pulled from a convoluted animal intestine, partic. from a pig in sausage casing manufacture by manually sepg. the intestine leading end and placing between a pair of grippers, manually holding and restraining the remaining intestine, and clamping the grippers on the intestine.

The grippers are then moved away while remaining intestine is held. The leading end is pref. espd by pulling away for 5-20 inches, and the grippers are a pair of opposed belts around respective drive and idler sprockets. The method permits rapid pulling without damaging the intestine 17. 5. 77 as 020720(10pp1358).

SADE/ ★ D12 B/29 ★IL --52-376
Utensil for cutting and pounding meat
SADEH A 23.06.77-IL-052376
P28 (31.05.79) A22c-07 A47j-43

TOYO- ★ D12 53499B/29 ★J5 4071-777
Concentrator for waste fish stock - produces fish meal suitable as feedstuff or fertiliser
TOYODA KIKAI KOGYO 21.11.77-JA-138883
C03 (C04) (08.06.79) B01d-01

Concentrator comprises (a) a container for accomodating a concentrating liq. such as a waste fish stock; (b) disc rotors disposed in the container; (c) a rotor shaft for rotatably supporting the disc rotors; (d) means for heating the disc rotors; and (e) a conc. discharging outlet set in the neighbourhood of the container bottom. The rotors are connected through connecting pipes, and respectively provided with buckets in the periphery.

The soln. may be efficiently conc. and the design permits easy maintenance. 21. 11. 77 as 138883 (8pp35)

ABAT- ★ D12 B/29 ★RU --64-009
Fat scraping machine for pig skins - has roller fitted with helical cutters
ABATORUL BUCURESTI 08.01.76-RU-084439
(21.06.78) A22b-05/08

OILI= ★ D12 53935B/29 ★SU -543-378
Separator for meat and bone residues - has drum with rollers on surface, cutting elements and plates, to ensure separation without clogging or damage
OIL IND RES INST 29.05.75-SU-138926
(19.04.78) A22c-17/04

Device for sepg. meat residues from crushed bones and for crushing heads comprises a cylindrical rotating drum with loading/unloading hatch and drive. The process is intensified and the treatment effectiveness is increased by adding a container for brine. The cylindrical surface of the drum is made from a collection of rotatable rollers with cutting elements fastened to their surfaces. This

drum is inserted into the brine container. Blocking and damage by the bones is prevented by fitting the drum with plates between the rollers with slots on both sides into which the cutting elements can be moved. Jamming of the bones between the cutting elements and the plates is excluded, by bending one edge of the plates inside the drum towards the leading cutting elements.
Barbetti R.R., Bogatyrev A.N., Gorbatov V.M. et al.
Bul. 3/25.1.77 29.5.75 as 138926 (3pp29)

LERO= ★ D12 53983B/29 ★SU -625-671
Continuous feed device for meat-cutting unit - in which large lumps can be processed by including a circular knife to remove surplus meat in conveying screw
LENGD ROSREMMEKHPRO 25.03.74-SU-007669
(01.09.78) A22c-17

Device for continuously feeding lumps of raw meat to a cutting unit comprises a hopper screw and working cylinder with guiding ribs. The lumps of meat are fed uniformly and continuously without crushing by fixing a circular knife at the entrance to the working cylinder, so that a controllable gap exists between it and the screw.

The lumps of meat loaded into the hopper pass downwards to the head of the screw and thus fill the spaces between the turns of the screw. Parts of the lumps extend beyond the outer dia. of the screw and as they are propelled along the working cylinder, these parts enter the gap between the knife and the outer edge surfaces of the flights of the screw.

The excess meat is thus removed, and the main parts of the lumps are taken up by the ribs and conveyed to the cutting unit as the screw rotates. Thus because of the way the edges of the meat are removed early in the movement through the feeding mechanism, the supply of meat to the final cutting unit is not impaired in any way. This means that larger-than-usual lumps of meat can be processed without having to remove them from the smaller lumps.
Kulinich V.V., Bul. 36/30.9.78 25.3.74 as 007669 (2pp 29)

FEDA= ★ D12 53984B/29 ★
Fish orienting loader for a jar-packing machine - has co
with internal parallel guides, the lower ends extendi
machine storage section
F E DALTEKHRYBPROM 09.11.76-SU-418588
(01.09.78) A22c-25/08

Device for loading fish into the storage section o
ine for filling jars, ensures correct orientation
It has guides along which the bodies, of the fish
it has a drive to give it a vibrating motion. A giv
ber of fish of different sizes can be oriented by p
conical container, inside which the guides are in
ribs fastened to the surface in a radial direction.
of the guides extend into the storage section to a
corresp. to the length of the min. size of fish be
cessed.
Kostrodymov, Yu. V. Bul. 36/30.9.78 9.11.76 as
(2pp029)

PEEN= ★ D12 54165B/29 ★S
Gypsum cement setting retardant - comprising shrim
waste
PENZA ENG CONS INSC 11.04.77-SU-481863
L02 (07.09.78) C04b-11/09

The pressings contain 75-80% water and 2-3% as
amt. added to the slurry is 0.2-0.5% by wt. of g
Shrimp pressings are a by-prod. of the shrim
industry and comprise 50% of the shrimps used.
waste contains 15-20% protein and chitin and min
(in mg%) Ca 172, Mg 113, Fe 0.89, Cu 0.79, Al
Pb 1.99 Zn 3.8, Mn 0.36. The material retards
over a 75% longer period than the usual retardant
or sulphite-alcohol vinasse.
Taube P.R. Kozlova N.A., Rubtsova N.D. Bul.
30.9.78 11.4.77 as 481863 (2pp835)

SCAN- ★ D12 54296B/29 ★SW
Sausage stuffer with stuffing tubes mounted on rotary hol
ends of sausages using rotation of holder combined with
tubes around their axes
SCAN VAST EK FOR 20.09.77-SW-010511
(23.04.79) A22c-11/02

See Also

D13 GB 1548971

D13: OTHER FOODSTUFFS

HOFF ★ D13 52539B/29 ★BE -873-419
Colouring agent, esp. for drinks, based on natural colourant - and water dispersible carotenoid(s) compsn. free of protein
HOFFMANN-LA ROCHE SA 13.01.78-CH-000372
E24 (12.07.79) A23p C09b

The agent, particularly for aq. systems, contain a water-soluble natural colourant or colourant extract and a carolenoids compsn. free of protein support and dispersible in water. The agent is prepd. by mixing an aq. soln. of the colourant with the carolenoids compsn. In the prepn. of coloured drinks, a conc. sugar syrup is mixed with an aq. soln. of the above colourant and carotenoid compsns.

The combination of the natural colourants with the carolenoids enables a wider range of colour using entirely natural cpds. esp. raspberry, strawberry, cherry, pomegranate, mandarin, orange, lemon and grapefruit. 12.1.79 as 873419 (6pp597)

COOP- ★ D13 52560B/29 ★BE -873-503
ingestible compsn. contg. vegetable fibre and metallic proteinate - used in dietetic products for intestinal transit regulation
COOP PHARM FRANCAI 18.01.78-FR-001402
(16.07.79) A23p

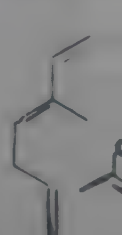
An ingestable compsn. comprises a food vegetable fibre and a metallic natural proteinate. The compsn. is used in

sit. The combination with the metal proteinate a
and Mg losses in the system occurring for examp
bran treatment alone.

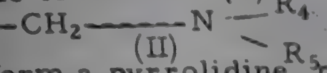
The fibre is pref. a cereal fibre such as wheat
Metals specified are Ca, Mg, Zn or Co and prote
egg albumin and milk casein, esp. Ca caseinate c
1-2% Ca. The pref. compsn. contains 5-120 pts.
50-60 pts. of Ca caseinate per 100 pts. wheat bra
dietetic product is pref. a biscuit product esp. a
ick contg. 43% wheat bran and 20% Ca caseinate c
1.7% Ca and also contg. 35% cereal flour and 2%
16.1.79 as 873503 (6pp597)

FIRM D13 81870W/50 =D
Alpha-sinensal prodn. - which is a foodstuff beverage a
from readily-available starting matls.
FIRMENICH SA 24.05.74-US-473066
*E17 (E13) (12.07.79) *DT2521-652 C07c-47/20 C*
C07d-295/14

α-Sinensal of formula (I), a known sesquiterpenal used to aromatise foodstuffs and beverages, is produced from more readily available materials by (a) brominating 3-methyl-penta-2,4-dienol; (b) reacting the 3-methyl-penta-2,4-dien-1-yl bromide obtd.



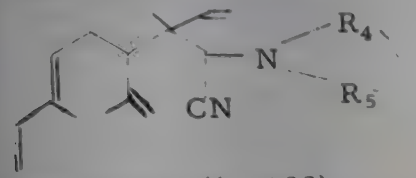
sityl oxide in the presence of g base; (c) reacting the 3-isopropenyl-6-methyl-7-dien-2-one obtd. with vinyl magnesium bromide ninating the 3,7-dimethyl-4-isopropenyl-nona-1, en-3-ol obtd. (e) reacting the product with an amile of formula (II)



$-CH_2-N<^{R_4}_{R_5}$ (II)

(where R_4 and R_5 are each lower alkyl or together with orm a pyrrolidine ring) (f) treating the product with : or neutral agent to convert to 2,6-dimethyl-2-3-isopropenyl-octa-5,7-dienal; and (g) heating the t to obtain (I).

intermediate obtd. is (e), which is of formula (III) specifically claimed.



(III)

75 as 521652 (6pp922)

/ ★ D13 52723B/29 ★DT 2800-235
nting tree damage by deer - by adding copper to their feed
AMELER W 04.01.78-DT-800235
3 (12.07.79) A23k-01/17 A61k-33/34

psns. for preventing damage to trees by game animals ifically roe and red deer) comprise conventional al feeds contg. finely divided pure Cu in an amt. of /10g per unit and of feed for 1 animal.

he Cu, which is stated to make up for a trace-elemen iency, prevents further tree damage within a few , and the effect lasts for a whole season. The Cu so stated to increase wt. gain, improve temperament increase ferility. 4.1.78 as 800235 (7pp367)

- ★ D13 52805B/29 ★DT 2824-830
e emulsified liquid starch prod. - for adding to dried animal (PT 22.6.79)
EMIN INDS INC 09.01.78-US-867809
03 (12.07.79) A23k-01

le emulsified liq. starch product contains 45-85% liq. suitable for nutrition and 15-55% of a whole rch-contg. material present in the liquid in the form of emulsion. The starch-contg. material is boiled, gelased and at least partially enzymatically hydrolysed. The jority of the emulsified particles have a mean particle meter of ≯300 μm. Animal fodder consists of ca 90-95 % dired fodder and ca 5-10 wt.% of the above product. The prod. can beused for the nutrition of all domestic mals, including monogastric animals (e.g. pigs, poul-), ruminants (e.g. cattle, sheep, goats) and pseudominants (e.g. horses, rabbits). The prod. has good ulsion stability (up to 9 months, typically 3-6 months) can replace 5-10% of the dried granules in a dried fodder thout affecting feed conversion or weight gain. It avoids need for pelletising feed, thus reducing costs. 6.6.78 824830 (19pp280)

IIM- ★ D13 52831B/29 ★DT 2854-817
creasing egg-laying rate of laying hens - with ground oyster shell d water soluble salts of calcium, potassium and magnesium
ANIMALKA MINERAL 30.12.77-DK-005887
C03 (12.07.79) A23k-01/24

ethod of increasing the egg-laying rate of laying poultry volves administering to the poultry a feed-additive contg. nely ground oyster shells and a preparation consisting readily soluble physiologically tolerable salts of calum, potassium, magnesium and, optionally, sodium and mineral-rich material. The feed additive gives an crease in laying rate and increase in laying rate and creases shell strength while permitting a reduction in the tal calcium carbonate administered.

The ground oyster shell pref. has a particle size of <0.1 mm. The preparation pref. contains a mixture of ca. 0% calcium gluconate monohydrate, ca 30% potassium gluconate monohydrate, ca 1% secondary magnesium phosphate trihydrate, ca 5% secondary sodium phosphate diydrate, ca 0.1% ferrous gluconate monohydrate, ca 0.1% manganese sulphate monohydrate, ca 0.1% zinc sulphate ulphate pentahydrate, ca iodide, and the mineral-rich material. 19.12.78 as 854817 (15pp280)

CIBA ★ D13 52850B/29 ★DT 2856-223
Prodn. of granulates - by slowly adding a solution of a solid to a liquid which is a non-solvent for the solid
CIBA GEIGY AG 29.12.77-CH-016183
B07 C03 J04 (12.07.79) B01d-09/02 B01d-12 C07c-126/08 C09b-67

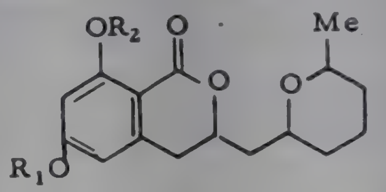
In a new process for the prodn. of granulates, a solution of a solid in a suitable solvent or solvent mixture (A) is slowly added with stoving to a second liquid or liquid mixt. (B), the liquid B being wholly or partially miscible with the solvent (A) at 20° C, and the solid being insoluble or poorly soluble in the liquid B. If the two liquids do not form a 2-phase system, then the system contains such an amount of salt that a liquid 2-phase system is formed.

Granulation of materials such as dyes, optical brighteners, textile aids, pharmaceuticals, pesticides, foods, beverages, antimicrobials, bacteriostatics, feedstuffs, plant protection agents, detergents, paper-finishing agents photochemicals, leather chemicals, polymers, catalysts chemicals and fertilisers. The granulates have good wettability, and dissolve rapidly. They have good flow properties, and their bulk density is high. 27.12.78 as 856223 (14pp280)

FARB D13 44172B/24 =EP ---2-665
Antibacterial agents and animal feed additives - contg. cladosporin and/or related cpds.
BAYER AG 01.12.77-DT-753513
*B02 C02 (11.07.79) *DT2753-513 A23k-01/17 A61k-31/35 +C07d-407/06*

D/S: E(BE, CH, DT, FR, GB, NL, SW).

Antibacterial agents and animal feed additives contain cladosporin (I) and/or cpds. of formula (II)



(II)

(where R_1 and R_2 are each H, Me or acetyl).

(I) and (II) are active against B. brevis, C. pasteurianum, A.citreus, S. lutea and certain strains of E. coli, S. viridochromogenes and N. brasiliensis. They are esp. useful for promoting growth and improving feed utilisation in ruminants, pigs and poultry.
18.11.78. as 101395 (12pp367).
(G) ISR: US 3838171; DT 2536202.

FARB ★ D13 52922B/29 ★EP ---2-695
Plant protectant cpd. prepd. by Actinoplanes culture - used as plant growth regulator and esp. herbicide
BAYER AG 11.02.78-DT-805855 (24.12.77-DT-758008)
C03 (11.07.79) A01n-09 C07g-17 C12d-13 C12k-03

D/S: E(BE, CH, DT, FR, GB, IT, NL).

A novel cpd. (I) of empirical formula $C_{10}H_{14}N_6O_3$ is characterised by its KBr IR absorption spectrum. It is prepd. by culturing an Actinoplanaceae family microorganism under aerobic conditions in a medium contg. C and N sources and mineral salts.

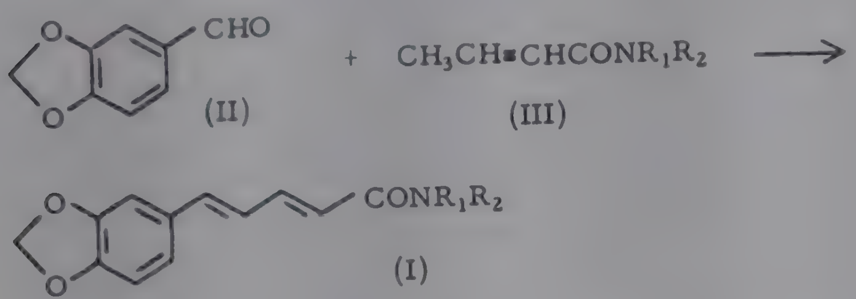
(I)-producing Actinoplanaceae microorganisms, pref. Actinoplanes, Ampullariella, Pilimelia and esp. Streptosporangium spp., are new.

(I) is a plant growth regulator, i.e. a defoliant, desiccant, weed killer, germination inhibitor and esp. a herbicide (total or selective depending on the application rate) It is applied at 0.1-40 (esp. 0.1-10) kg./ha.
7.12.78 as 101589 (41pp941).
(G) ISR: J50125094; 3 Journal References.

HAAR D13 49201B/27 =EP ---2-734
Piperonylidene-crotonic acid amide derivs. prodn. - from piperonal and crotonic acid amide, useful as condiments, insecticides, analeptics etc.
HAARMANN & REIMER GMBH (FARB) 22.12.77-DT-757483
*B02 C02 E13 (11.07.79) *DS2757-483 C07d-317/60 C07d-405/10*

D/S: E(CH, DT, FR, GB, IT, NL).

Prepn. of piperonylidene-crotonamides of formula (I) comprises reacting piperonal (II) with crotonamides of formula (III):



(where R_1 and R_2 are H or opt.substd. aliphatic, araliphatic or aromatic hydrocarbyl, or NR_1R_2 is a heterocyclic ring, provided that R_1 and R_2 are not both H).

The reaction is effected in the presence of (a) a catalyst of formula $A^{\oplus}OH^{\ominus}$ (where A is a quat. ammonium or phosphonium gp. or an alkali metal complex with neutral organic complex ligands) and (b) an inert polar aprotic solvent or an inert, sterically hindered protonic organic solvent.

Cpds. (I) are useful as flavours (black pepper), additives for germicides, insecticides, insecticide synergists, and analeptics for use in morphine and barbiturate intoxication.

The process is simple and gives high yields (e.g. 70-88%).

14.12.78 as 101675 (25pp367).

(G) ISR: 1 Journal Reference.

HAAR D13 45730B/25 =EP ---2-735

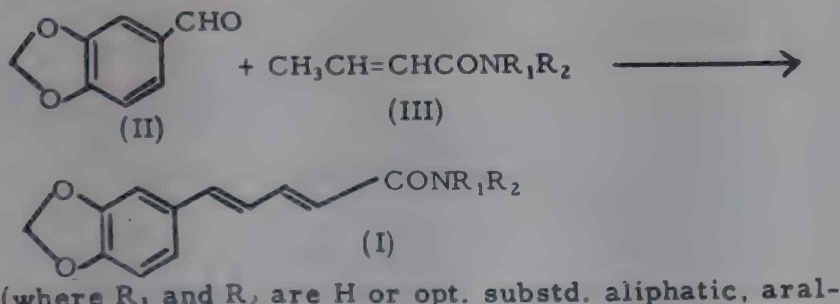
Piperonylidene-crotonamide derivs. prodn. - by reacting piperonal with crotonic acid cpds. in presence of alkali hydroxide and dipolar solvent

HAARMANN & REIMER GMBH 22.12.77-DT-757506

*B02 C02 E13 (11.07.79) *DS2757-506 C07d-317/60 C07d-405/10*

D/S: E(CH, DT, FR, GB, IT, NL).

Prepn. of piperonylidene-crotonamides of formula (I) comprises reacting piperonal (II) with corotonamides of formula (III) in the presence of an alkali metal hydroxide and an inert dipolar aprotic diluent.



(where R_1 and R_2 are H or opt. substd. aliphatic, araliphatic or aromatic hydrocarbyl, or NR_1R_2 is a heterocyclic ring, provided that R_1 and R_2 are not both H).

Cpds. (I) are useful as flavours (black pepper), additives for germicides, insecticides, insecticide synergists, and analeptics for use in morphine and barbiturate intoxication.

The process is simple and gives high yields (e.g. 60-77%).

14.12.78 as 101676 (18pp367).

(G) ISR: 1 Journal Reference.

SOUT- D13 54385B/29 =EP ---2-882

Easily dispersible powdered hydrated emulsifiers - prepd. by spraying mixt. of water and melted emulsifier

SOUTHLAND CORP 21.12.77-US-862908

*E17 (D21 E12) (11.07.79) *US4159-952 B01f-17 +A21d-02/16 A61k-07*

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Prodn. of powdered hydrated emulsifiers is carried out by (a) melting a normally solid emulsifier, (b) injecting

in an amt. sufficient to provide 2-15 wt.% H_2O in product, and (c) spraying the mixt. through a nozz a cooling chamber maintained at a temp. below th of the emulsifier.

The products are suitable for use in the food a metic industries. They are obtained in the form to-handle powders with good self-emulsification p ties when added to water.

20.10.78 as 300525 (14pp367).

(E) ISR: DT2062581; US3702307; US3671459; US

ICIL ★ D13 52996B/29 ★

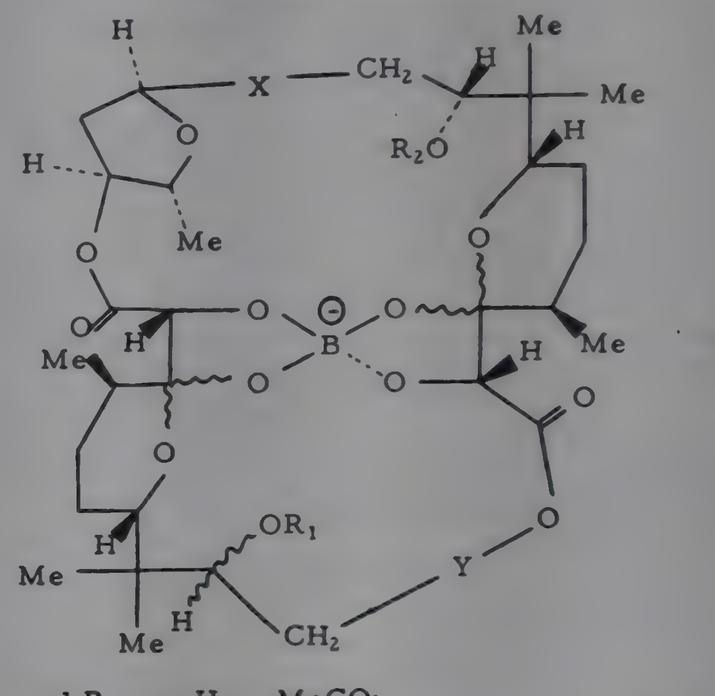
Treatment of ruminants with aplasmomycin or related modify rumen metabolism and to improve animal growth

IMPERIAL CHEM INDS LTD 08.05.78-GB-018269 (22. 053448)

C02 (11.07.79) A23k-01/17 C07d-493/22 C12d-09

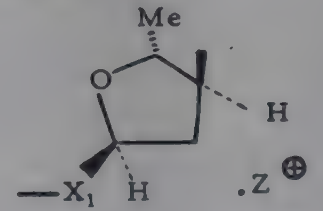
D/S: E(BE, CH, DT, FR, GB, IT, NL, SW, LU).

(A) Domesticated ruminants are orally given apla mycin or a related cpd. of formula (I):



(I

(R_1 and R_2 are H or MeCO;
either (a) the 3-, 3'- and 9'-C atoms are all in the figuration; X is CH_2CH_2 or trans-CH=CH; and Y of formula (II):



(II)

where X_1 is bonded to the CH_2 and the ring C is bo the O atom, X_1 being CH_2CH_2 or trans-CH=CH;
Z is Na, K, Li, Cs, NH_4 or $R_3R_4R_5R_6N^{\oplus}$;
R_3-R_6 are H or 1-6C alkyl;
(b) the 3-, 3'- and 9'-C atoms are all in the S-con tion; X is CH_2CH_2; and Y is a gp. of formula (III)

$$-CH_2X_2CH_2\overset{|}{C}HCHMeOCOCH(\overset{\oplus}{N}H_3)CHMe_2$$

(III)

$$-CH_2X_2CH_2\overset{|}{C}HCHMeOCOCH(NH_2)CHMe_2.Z^{\oplus}$$

where the CH_2 is bonded to the CH_2 in (I) and the C bonded to the O atom, X_2 being CH_2CH_2 or cis-CH or (c) the 3-, 3'- and 9'-C atoms are all in the S- uration; X is CH_2CH_2; and Y is a gp. of formula

$$-CH_2X_2CH_2\overset{|}{C}HCHMe\text{-}OH.\ Z^{\oplus}$$

(V)).

(B) Streptomyces griseus NCIB 11371 is new.
(C) (I) are new when (1) in gp. (a) one of X and X_1 CH_2CH_2 and the other is trans-CH=CH, or X and both CH_2CH_2; (2) in gp. (a) X is trans-CH=CH, X_1 trans-CH=CH and Z is K, Li, Cs, NH_4 or $R_3R_4R_5R$ (3) in gp. (b) Y is a (III) or (IV) gp. in which X_2 is

or $R_3R_4R_5R_6N$.
ruminants modifies rumen metabolism so that
on. of propionic acid formed at the expense of CH_4
acetic acid is increased, so that growth rate is
d, and food conversion efficiency is increased. (1
ninistered at 0.01-30 mg./kg. in feeds, licks etc.
or a selected period, of the animals' growth cycle.
ot show toxic effects at effective levels.
as 300718 (35pp1248).
DT2540509; DT2711652; FR2021953; FR2169201;
954.

★ D13 53054B/29 ★FR 2405-654
g gruyere or emmental type cheese - using milk having
ntent of butyric spores
SJEAN D 13.10.77-FR-030892
5.06.79) A23c-19/02

ocess using milk contg. >700 butyric spores per
omprises pasteurising at a sufficient temp. and time
roy the greatest number of milk lactobacilli (absence
obacilli after 24 hrs. incubation at 40°C). The milk
inoculated with Strptococcus lactis strains used in
mfr. in amts. necessary to obtain an acidity above
ornic after 2 hrs. pressing and above 60° Dornic
hrs. pressing. The mfr. is then continued in the
l manner with curdling, sepg., heating, stirring,
efining.
e process enables good quality cheese from milk
over 700 butyric spores/l, e.g. 1000-20,000, which
not previously have been satisfactory for making the
cheeses. 13. 10. 77 as 030892 (4pp597)

- ★ D13 53055B/29 ★FR 2405-658
lar dietetic compsn. contg. wheat bran, protein, and
le(s) - prepd. by impregnating the bran and heating
ONOT SOC PROD LAB 14.10.77-FR-031862
(15.06.79) A23l-01/10

compsn. is used to accelerate or regularise intestinal
sit. It is prepd. by impregnating the bran with an aq.
of the glucides and a protein followed by heating the
ed bran for a sufficient time to partially harden it and
e it crusty.
ompared with other bran products the compsn. has a
er cellulose content which makes it more effective.
it is appetising and has a pleasant taste. The bran con
t is pref. 40-50%. Specified proteins are lactalbumins
ctoserum. The glucide mixt. pref. comprises honey,
charose and manna sugar. The compsn. pref. also con-
s star anise powder. In the prepn., the heating at 170°C
20-25 mins. 14. 10. 77 as 031862 (5pp597)

E/ ★ D13 53056B/29 ★FR 2405-659
diment cream compsn. based on garlic, onion or shallot - with
soln. and oil prepd. by mixing and grinding
OGEZ P 17.10.77-FR-032155
(15.06.79) A23l-01/24

cream is prepd. by charging the ingredients to a mixer
inder appts. operating at $10\text{-}15\times10^3$ rpm. for 3-5 mins.
s easier and cheaper to prepare and avoids manipulation
blems compared with present condiments. It is also
ble to storage in the air for long periods.
The salt soln. is pref. satd. Specified oild are olive,
za, grape seed, wheat germ and margarine. The compsn
o pref. contains citric acid and several drops of acetic
d. A specified compsn. contains 50-80% condiment, 18-
% salt soln. 1-10% oil and opt. 1-10% citric acid. In the
pn. the emulsion is pref. screened to remove any remo
ng skin. The condiment is pref. crushed on a grating,
ich retains skins, to form a paste. In this case a beater-
xer is pref. used operating at 100 rpm. max. for 15-30
ns.; or alternatively a kneader-mixer at 300 rpm. max.
15-30 mins. 17. 10. 77 as 032155 (8pp597)

HR- D13 75944Y/43 =GB 1548-490
ayonnaise and/or derived prods. continuous mfr. - by mixing
agulated egg yolk, milk albumin, skimmed milk powder, protein,
rch, stabiliser, salt, oil, and colourant
SCHROEDER & CO (SCKH) 09.07.76-DT-630872
*P28 (18.07.79) *BE-855-806 A23l-01/24*

(a) heating a mixt. of coagulated egg yolk, milk proteins, starch stabiliser and oil, (b) cooling the mixt. to or below room temp. (c) emulsifying the cooled mixt. with more oil, (d) mixing the emulsion with vinegar, (e) pasteurising or sterilising the mixt. by heating, and (f) cooling the mixt All the oil used in (a) and (c) is sufficient for the prodn. of the mayonaise (-contg. prod.).

The prod. can be kept for a very long time and does not require refrigerated storage. 4. 7. 77 as 027979(5pp393).

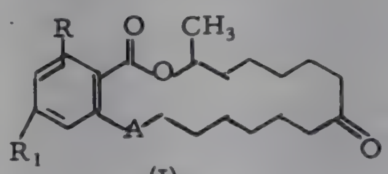
TOYJ D13 57088A/32 =GB 1548-553
Di:peptide amino acid addition cpds. - can be decomposed to highly pure di:peptide ester s) which are sweeteners (BE 24.7.78)
TOYO SODA KK (SAGA) 19.05.77-JA-057036 (27.01.77-JA-007279)
*B05 E16 (E14) (18.07.79) *DT2801-238 C07c-103/52 +C07c-101/08*

Addn. cpds. of dipeptide derivs and amino acid derivs having formula $R_3\text{-CO-CHR}_2\text{-NH}_2\text{-HOOC-(CH}_2\text{)n-CH(NHR}_1\text{)-CO-NH-CHR}_2\text{-CO-R}_3$ (I) are new. In the formula, R_1 is aliphatic oxycarbonyl, benzyloxycarbonyl opt substd. in the Ph ring or a benzoyl, aromatic sulphonyl or aromatic sulphinyl gp. R_2 is methyl, isopropyl, isobutyl, isoamyl or benzyl. R_3 is 1-3C alkoxy, benzyloxy, or benzhydryloxy. n is 1 or 2.

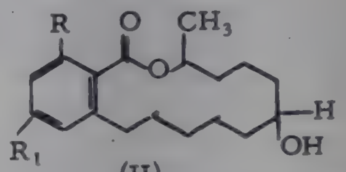
The addn cpds. are useful intermediates in peptide syntheses. They may be prepd. by reacting an N-substd. monoaminodicarboxylic acid with an amino carboxylic acid ester in aq. medium in presence of a protease at the appropriate pH and reaching the resulting dipeptide ester with the amino carboxylic acid ester to deposit an addn cpd having an LL dipeptide ester gp. 16. 1. 78 as 001646 (28pp945).

INTM D13 00046Y/01 =GB 1548-590
Zearalanol anabolic agent prepn. - by heating zearalenone in isopropanol with Raney nickel catalyst
INT MINERALS & CHEM CORP (COMM) 22.08.75-US-606856
*B02 C02 (18.07.79) *BE-845-376 C07d-313*

The redn of a zearalenone cpd of formula (I) to a zearaland cpd. of formula (II) is described.



(I)



(II)

In the formula A is a single or double bond and R and R_1 are each H, OH, 1-6C alkoxy 1-6C alkanoyloxy or 6-8C aryl-(1-5C)alkoxy.

Method comprises reducing (I) with isopropyl alcohol is an equilibrium reaction in the presence of a Ni catalyst. Pref. the reaction is at 20-200 (100-200)°C.

(II) are used as anabolic substances for admin to certain meat-producing animals. 27. 7, 76 as 031278(8pp964).

CENS D13 05736Y/04 =GB 1548-703
Animal feedstuff mixer and extruder - has S shaped conveying path with steam under pressure, preceding extrusion chamber
CENTRAL SOYA KK 29.12.75-US-644463 (10.09.75-US-612242)
*C03 (18.07.79) *BE-846-075 A23n-17 +B29b-03*

Prepn. of animal food pellet is claimed which involves forcing a cooked mash by idler rollers through orifices of a rotating die. Method comprises (i) cooking mash under super-atmospheric pressure; (ii)forcing mash through die orifices to form deaerated ribbons or rods of uniform constituency across successive transverse planes, being free of fractures on the sides of the ribbons etc downstream of orifices; and (iii) cutting into pellets.

Subsequent to the cooking and before extruding through die, the pressure on the mash may be reduced to atmos, pressure. Cooking is pref. effected in a steam atmos at 1-25(1-14)psi.

The mash obtd. is deaerated and more plastic ensuring a better 'bite' by the die and rolls. The method ensures more controllable conditions and quality. 17. 8. 76 as 034263(10pp963).

SWFR D13 68891Y/39 =GB 1548-772
Soft ice cream machine with an accurate doser - a short residence time flow mixer and separate freezer
SWEDEN FREEZER MFG CORP (FRIE-) 08.07.76-NL-007558
*+Q75 (18.07.79) *BE-855-012 +B01f-07/02 F25c-07/08*

Appts. for producing a semi-frozen food prod, partic. soft ice cream, has a reservoir for compsn. powder, a metering device with powder conveyor, a water supply pipe, a mixer and a freezing cylinder contg. a stirrer and level sensor. The powder is delivered in accurate quantities for ready and full soln. in the water.

The mixer pref. includes a bowl with a smooth disc-shaped bottom rotor forming a narrow blending gap, powder and water passing through the rotor to the bowl bottom. The mixt. is pref. discharged from a tangential side outlet. 22. 6. 77 as 026126(8pp1358).

PROC D13 12731Y/08 =GB 1548-971
Minced meat substitute from protein, esp. soya - by extrusion ther. heating chopped product with fat, further protein and water
PROCTER & GAMBLE CO 18.08.75-US-605472
*(D12) (18.07.79) *BE-845-273 A23j-03*

A meat analogue prod. as prepd. by extruding a first mixt. having a protein concn. of $\geqslant$ 25 wt. %, water content of $\geqslant$20-50 wt. %, a non-protein solids content of 0-55 wt. % and pH of 5. 0-8. 0, at 120-200°C and 100 p. s. i. g.

The extrudate prepd. is then cooled to form a non-plastic extrudate, which is then cut to provide irregularly-shaped discrete pieces. A second mixt. contg. 10-85 wt% of prepd. discrete pieces, 0-70 wt. % of fat, 1-30 wt. % of a hydratable, undenatured vegetable protein-contg. material (of protein conc. $\geqslant$ 70 wt), and 5-80 wt. % of water, is heat-set to produce a prod. which can be broken into irregularly-shaped pieces and dried to a moisture content of $<$ 10 wt. %

Prod. can be rehydrated and employed as a complete or partial substitute for chopped meat. 17. 8. 76 as 034197 (5pp931).

ROHG ★ D13 53143B/29 ★GB 2011-91
Animal protein hydrolysates useful for animal feedstuffs - are obtd. by protease and amylase hydrolysis of blood etc.
ROHM GMBH 02.10.78-DT-842918 (20.12.77-DT-756739)
C03 (18.07.79) C07g-07

Proteinaceous material of animal origin is subjected to enzymatic hydrolysis with protease(s) and/or amylase(s) having proteolytic activity. After the hydrolysis unused enzyme is inactivated.

Hydrolysates of consistent uniformity and high quality are obtd. in high yields, esp. from blood, carcass waste, bone waste, meat waste etc. obtd. during the slaughter and subsequent processing of animals. The hydrolysates are useful as nutritive animal feedstuffs and food compsns. 15. 12. 78 as 048719(6pp1248).

AGRO- ★ D13 B/29 ★HU T016-66
Prepn. of nutrients, esp. animal fodder concentrates - form waste proteins
AGROKEMIA SZOVETKEZ 30.04.76-HU-DA0337
C03 (28.06.79) A23k-01/14

MINA/ ★ D13 53258B/29 ★J5 4070-454
Removing cadmium from rice - by polishing rice and then treating with aq. soln. contg. sodium chloride and acid
MINAKAWA K 09.11.77-JA-135154
(06.06.79) A23l-01/10

Rice contaminated with cadmium is polished and treated with a mixed aq. soln. contg. sodium chloride and an acid so that cadmium is removed in a form combined with soluble protein. The contaminated rice is polished to separate off the rice-bran. The rice-bran is treated with organic solvent, so that Cd is sepd. from rice-bran oil. The polished rice is treated with aq. soln. contg. acid such as tartaric acid, phosphoric acid, acetic acid, etc. and sodium chloride. The starch component can be sepd. from the Cd combined with the protein.

The rice so treated is almost completely free from Cd and can be used as food. 9. 11. 77 as 135154 (5pp22)

KINJ- ★ D13 53259B/29 ★
Treating foodstuff prepd. from soybean to remove soybe
by addn. of spirit oil contg. isothiocyanic acid
KINJIRUSHI WASABI 10.11.77-JA-135046
(06.06.79) A23l-01/20

Processed foodstuff prepd. from soybean is mixe
spirit oil contg. isothiocyanic acid ester or a sub
contg. the spirit oil in an amt. of 0. 5-70 mg spir
100 g of the foostuff. The resulting foodstuff is f
soybean odour.

The processed foodstuff includes various kinds
foodstuffs (e. g. Kamaboko, Chikuwa, Hanpen, et
from soybean, defatted soybean, etc. The isothi
acid ester has formula RNCS, where R is typicall
The material contg. this ester includes Eutrema
mustard, etc. The spirit oil contg. the isothiocy
ester or material contg. the spirit may be added
foodstuff during or after its prepn.

In an example, defatted soybean powder is mix
Eutrema wasabi powder in an amt. of 0. 05-12 wt.
her with water, followed by blending and kneading
prod. is heated at 70-80°C for 30 minutes. The
free from soybean odour, and can be used for pr
various kind of foodstuffs. 10. 11. 77 as 135046 (4

TAKA- ★ D13 53260B/29 ★J
Vegetable-pickling mixt. - prepd. by adding seasoning
carrageenan, water insoluble (in)organic material and ca
TAKARAGEN HANBAI KK 11.11.77-JA-134803
(06.06.79) A23b-07 A23l-01/21

Mixt. is prepd. by adding seasoning to a gel whic
posed of carrageenan, water-insoluble organic or
substances and Ca salt.

Pref. water-insoluble organic and inorganic su
are kaolin, acid clay, talc, diatomaceous, pulp,
ine cellulose etc. Ca salt is pref. monocalcium
Red and yellow pigments and sodium alginate are
mixed in the mixt. 11. 11. 77 as 134803 (4pp42)

INOU- ★ D13 53261B/29 ★J
Storage stable packed fresh milk - using container prod
laminated film of vinylidene chloride and polypropylene
INOUE GUM KK 10.11.77-JA-135133
A92 Q34 (A14) (06.06.79) A23c-09 B65d-77/20 B65d-

Packed fresh milk (I) is produced by (i) filling fre
in a vessel of laminated film, which is obtd. by s
ing vinylidene chloride film between two polyprop
films, (ii) covering the vessel with the lid of meta
minated with polyethylene or polypropylene, (3) s
vessel with the lid by heating, and (4) sterilising
pack in the vessel by heating at 100-120°C.

(I) is used for blending with black tea or coffee
is sealed hermetically and sterilised at high temp
be stored during long period of time. 10. 11. 77 a
(3pp42)

ASAH ★ D13 53262B/29 ★
Egg powder with reduced cholesterol and fat content - p
freeze or spray drying, then contacting with di:methyl et
ASAHI CHEMICAL IND KK 16.11.77-JA-136678
(06.06.79) A23l-01/32

An egg powder (I) is provided in which $>$30% of p
lipid in raw egg remains and more than $>$95% of
erol and neutral fat in the raw egg are removed.
of (I) comprises removing water from whole egg
yellow and bringing it in contact with liquid dimet
for removing cholesterol and neutral fat. (I) has
taste and flavour as those of raw egg, but is less
to health. (I) is produced without denaturation of
ein.

Dehydration or drying of egg may be effected
drying or spray drying, until the content of water
ased to $<$ 25 wt. %. The dehydrated egg or egg-y
contacted with 6 times volume of dimethyl ether
C. 16. 11. 77 as 136678 (9pp42)

D13 53263B/29 ★J5 4070-477
drink - comprises fine powder of pegmatite and Bacillus

RA M 11.11.77-JA-134743
(06.06.79) A23l-02/38
s natto is incubated at 40°C for 72 hrs. in agar cul
edium, contg. soy bean extract or soy bean-boiled
glucose, peptone and mono-potassium phosphate,
is spread in Petri dish, and then allowed to stand a
or 5 days. Pegmatite powder, passing through 100
sieve, is suspended in water suspending Bacillus natto
sorption of the microbial to pegmatite. The health
s obtd. by drying the suspension. After the drink
pended in fresh water and settled for a while, the
natant is used as the health drink.
cillus natto is added to pegmatite for giving intestine
ating effect to the health drink. 11.11.77 as
3 (2pp42)

★ D13 53304B/29 ★J5 4070-97
feed contg. dried food garbage - prepd. by sterilising wast
drying at low temp., grinding, and mixing with usual anima
ngredients
TSUBISHI STEEL MFG KK 14.11.77-JA-135681
3 *(07.06.79) A23k-01/10*
ed feed contg. dry garbage obtd. by heat-treating
ge, leftovers, etc. put out by food processing factor-
restaurants, food supply centres, etc. is prepd. by a
ss in which the food garbage and left-overs are sub-
d to a sterilization treatment at 120°C for 20 min.,
dried at a low temp. until the moisture content is
and then ground as required, and lastly the dried gar
powder is mixed with 10-40 wt.% the usual mixed
or raw materials which are commercially available.
he mixed feed obtd. is inexpensive and has high prot-
ontent and good storability. 14.11.77 as 135681
117)

W ★ D13 53307B/29 ★J5 4070-995
for culture of red sea-bream - contg. colouring agents to give
oved fish colour
YOWA FERMENTATION KK 09.11.77-JA-133395
03 (07.06.79) A23k-01/18
ed intended for use in the culture of red sea-bream for
roving its colour, is claimed, which contains 50-90
% astaxanthin, 0.5-10 milli% rutin, 0.5 to 5 mili%
xanthin, and 9-25 mili% tunaxanthin.
When this feed containing the colouring matter is admi-
tered to red-coloured fishes, esp. red sea fishes, e.g.
sea-bream, etc. the red colour of these fishes is
nged into more elegant, refined red colour. 9.11.77
133395 (3pp117)

M ★ D13 53512B/29 ★J5 4071-794
enic-free copper sulphate penta:hydrate prepn. - by adding
per oxide dust and active carbon to aq. copper sulphate soln.
ing, filtering and crystallising
SUMITOMO METAL MINI KK 19.11.77-JA-139350
C03 E32 (08.06.79) A23k-01/17 A23l-01 C01g-03/10
senic free blue vitriol is produced by adding to a $CuSO_4$
soln. of crude blue vitriol contg. free sulphuric acid
solved in hot water, copper oxide dust in an amt. suffi-
nt to neutralise the free sulphuric acid contained and ac-
ated carbon in an amt. of $\geqslant$4 g/l of the aq. soln. simul-
neously, stirring the mixt. at 60-80°C, filtering and coo-
g the filtrate to recrystallise the blue vitriol. Specific-
y the soln. treated with the copper oxide dust and activ-
ed carbon is allowed to stand and the supernatant liquid
) vol% of the total) is transferred to another container
d cooled to recrystallise the blue vitriol, while the rest
utilised in the next run.
As content is reduced to a trace, the time required for
utralising the sulphuric acid is reduced to $\leqslant$1/4 of the
onventional methods because the dissolution of copper
xide dust is accelerated. 19.11.77 as 139350 (4pp119)

MORI/ ★ D13 53716B/29 ★J5 4073-138
Nutrient additive for foods - comprises refined powder of oyster shell or its liquefied prod.
MORIYAMA M 25.11.77-JA-140645
(12.06.79) A21d-02/02 A23c-09/12 A23d-13 A23g-01 A23g-03 A23l-01/30

The additive is the refined powder of oyster shell or its liquefied product and contains Ca oxide, Mg oxide, Si dioxide, Al oxide, Fe(III) oxide, Ti dioxide, Na oxide, K oxide, S trioxide, P pentoxide, chlorine atom and CO_2 as effective ingredients. It can be combined in drinking water (tap water, natural water and distilled water), carbonated beverages, lactic acid drinks, bean powder, fruit juices, breads, pickled vegetables, wine, etc. for enrichment.

The additive for foods (RTM: Calgen) contains water soluble ionised Ca 40-80% and Ca is active and can be easily absorbed by persons. 25.11.77 as 140645) (3pp5)

TOXW ★ D13 53717B/29 ★J5 4073-139
Preventing oily food denaturation - by packing with oxygen absorbent in airtight packaging contg. titanium or iron oxide granules to block UV rays
TOYO INK MFG KK 18.11.77-JA-139199
A92 (12.06.79) A23d-03/04 A23d-05/04 A23l-03/34

Method comprises packaging oily foods together with oxygen absorbent in an air-tight package prepd. of material which is oxygen impermeable and is made transparent, and UV-ray blocking at least partly by combining Ti oxide or iron oxide granules having particle size $<$ 200 mμ ($<$150 mμ).

As the material the complex film, of which inner side is made of polyolefin film and outer side is made of oxygen impermeable film such as the film of PVdC resin, acrylonitrile resin, PVA or EVA partly saponified resin, can be used. The film is made UV-ray blocking either by dispersing Ti oxide or iron oxide granules in the folm or spreading the adhesive or the coating material contg. Ti oxide or iron oxide granules on the film.

Oily foods such as potato chip, peanut, fried rice cake, etc. are not denaturated by oxidn. 18.11.77 as 139199 (5pp5)

TOPP ★ D13 53718B/29 ★J5 4073-140
Compsn. for keeping food fresh - comprises ascorbic acid and alkali carbonate
TOPPAN PRINTING KK 21.11.77-JA-139637
E13 (E34) (12.06.79) A23l-03/34

The compsn. contains ascorbic acid and alkali carbonate as the major ingredients. The compsn. prevents deterioration of foods by oxygen without giving harmful effects, ie. it shows absorbing ability for oxygen and the forming ability for CO_2 gas.

The amt. of oxygen absorbed and the amount of CO_2 gas formed can be freely controlled by regulating the proportion of ascorbic acid and alkali carbonate. To suppress the formation of CO_2 gas, $Ca(OH)_2$ may be (partly) substd. by alkali carbonate. The reaction can be promoted by using $FeSO_4$, $FeCl_2$, active C etc. as catalyst. 21.11.77 as 139637 (3pp5)

MAZN ★ D13 53720B/29 ★J5 4073-158
Refining sweet substance extracted from Stevia leaves - comprises treating liq. extract with aluminium magnesium complex oxide adsorbent
MARUZEN KASEI KK 18.11.77-JA-137963
B03 E13 (12.06.79) A23l-01/22 C07h-01/08

Method comprises treating the liq. extract obtd. by extracting the sweet substance from the leaves of Stevia rebaudiana Bertoni, with an adsorbent consisting of an aluminium-magnesium complex oxide.

The impurities in the extract can be removed in a short time with little loss of Stevioside. The adsorbent does not release ions which give harmful effect on the succeeding refining process using an ion exchange resin. The adsorbent can be regenerated. The refining method can be practiced in a closed system without discarding the waste.

The adsorbent can be prepd. by burning a mixt. of magnesium hydroxide and aluminium hydroxide at ca. 500-600 °C. It has the composition $MgO.\,xAl_2O_3.\,nH_2O$ ($x=0-0.25$), a specific surface area of 75-110 m^2/g and a void volume 18.11.77 as 137963 (4pp5)

KONI/ ★ D13 53730B/29 ★J5 4073-196
Sterilisation of rice used for sake prodn. etc. - by contacting with mixt. of alkylene oxide and carbon di:oxide
KONISHI S 18.11.77-JA-139272
(12.06.79) A21d-13 A23l-01/20 A23l-03/34 C12b-03/16 C12g-03/02

Sterilisation of rice (I) is effected by the mixt. of alkylene oxide (II) and carbon dioxide. As (II), ethylene oxide and propylene oxide are used. The conc. of (II) in the gas mixt. should be >5 v/v%, e.g. (10-30 v/v%). (I) is allowed to stand in contact with the gas mixt. for several hrs.

The method is used for sterilisation of (I), used for fermentative prodn. of miso, soy bean sauce, vinegar, and sake. (I) can be sterilised completely by the present method and (II) can be easily removed. 18.11.77 as 139272 (5pp42)

DAUC D13 41056X/22 =J7 9016-575
Colour and taste modifier for rice - prepd. by heating mixt. of powdered corn syrup, starch, rice embryo and enzyme and compression moulding
DAI-ICHI SEIYAKU CO 14.10.74-JA-118444
*(D16) (23.06.79) *J51044-660 A23l-01/10*

Quality modifier for cooked rice is prepd. by heating to 70°C a mixt. of powdered corn syrup 70-85 wt.% starch 15-25 wt.% rice embryo 1-3 wt.% and enzyme 0.1-0.5 wt.% and compression-moulding at 20-60 kg/cm². Cooked rice modifier is added in amt. 5-10% to refined rice for cooking After adding the rice modifier in amt. 2-20% pref. 5-10% to the refined rice, the mixt. is washed same as for ordinary rice, and cooked. O

Obtd. cooked rice excels in brilliance and lustre, giving better appearance, and further has improved taste Starch acts as binder, and any starch such as millet starch, potato starch, etc. may be used. Embryo and enzyme increase taste and colour sense. As embryo, flour embryo is most appropriate. As enzyme, hydrolytic enzyme such as amylase, protease are most suitable. As powdered corn syrup DE 15-40, may be used improving lustre. 14.10.74 as 118444 A23l-1/10 (23.6.79) DAI-ICHI SEIYAKU CO LTD. (3pp) (J5 1044660)

HOHN D13 60728X/32 =J7 9016-576
Food material for use in sausages, hamburger steaks and soups - prepd. from high amylose starch
HOHNEN OIL KK (HOHN-) 26.11.74-JA-136578
*(23.06.79) *J51073-155 A23l-01/19 +A21d-02/18 A23g-03*

High amylose starch is gelatinised to cause cleavage and frozen to form crystals of ice between starch molecules. The prod. is thawed to obtain a porous and elastic substance and is then kept at 1-5°C for >1 hr. to cause rearrangement of the starch molecules and formation of micelle. Thus starch is converted into a water-insoluble non-gelatinising food material. High amylose starch is obtd from high amylose corn of which the amylose content in whole starch is ≮45%. 26.11.74 as 136578 A23l-1/195; A21d-2/18; A23g-3/00 (23.6.79) HOHNEN OIL KK (4pp) (J5 1073155)

NIKN ★ D13 53807B/29 ★J7 9016-577
Boiling stored rice in aq. sugar alcohol soln. - to improve hydrophilic property of rice and impart excellent flavour
NIPPON KOKAN KK 06.11.71-JA-088531
(23.06.79) A23l-01/10

Method comprises dipping long-stored rice in aq. solns. of sugar alcohol (I) and boiling the rice in the same soln. (I) is e.g. sorbitol, maltitol, xylitol, lactitol, etc.

(I) improves hydrophilic property of rice and gives boiled rice of excellent flavour. 6.11.71 as 088531 A23l-1/10 (23.6.79) NIKKEN CHEM. KK (3pp83) (J4 8052957)

NISW ★ D13 53808B/29 ★J7 9016-578
Proteinaceous, jellyfish-like food - by peptising protein and forming a film which is then frozen and soaked in water and acidic seasoning soln.
NISSHIN OIL MILLS KK 03.12.71-JA-097185
(23.06.79) A23j-03 A23l-01/32

The method comprises peptising animal or vegetable protein (I) with alkali, casting the soln. into a film, rapidly freezing the film; soaking it in water; and immersing it

(I) is e.g. soybean protein, gluten, fishmeal et
3.12.71 as 097185 A23j-3/00; A23l-1/325 (23.6.7
NISSHIN OIL MILLS KK (2pp83) (J4 8061655)

MORI- ★ D13 53809B/29 ★J
Improving the taste and flavour of soy - by adding leaf, ste
and/or seed of Stevia rebaudiana
MORITA KAGAKU KOGYO 17.04.74-JA-042846
(23.06.79) A23l-01/22

In the mfr. of soy, the improvement comprises a
leaf, stem, flower and/or seed of Stevia Rebaudia
plant belonging to chrysanthemum family) in suita
of the soy mfg. process. The plant gives excellent
and taste to the soy. 17.4.74 as 042846 A23l-1/22
MORITA KAGAKU KOGYO KK (3pp83) (J5 0135256

QPPP ★ D13 53811B/29 ★J7
Egg drink mfr. - comprises treating egg with lipase, extr
fraction, treating protein fraction with protease and comb
two fractions
Q.P. CORP 24.04.72-JA-040387
(D16) (23.06.79) A23l-01/32 C12g-03/04

Method comprises treating egg with lipase, extrac
fraction with alcohol, treating protein fraction wit
tein fraction with protease, and combining the two
The method removes unpleasant fishy smell, and g
drink of excellent flavour. 24.4.72 as 040387 C12g
A23l-1/32 (23.6.79) QP CORP. (3pp83) (J4 900176

UEDA/ ★ D13 53835B/29 ★J7
Simultaneous emulsification and sterilisation of food -
frequency irradiation of roughly emulsified mixt.
UEDA T 11.05.71-JA-030823
(27.06.79) A23d-05/02 A23l-01 A23l-03/26 C11b-15/1

Food materials are mixed and blended, and rough
sified by mixer. The mixt. is then irradiated with
frequency of 900-2500 MHz to emulsify it complete
simultaneously sterilise it. 11.5.71 as 030823 A23
A23d-5/02; A23l-3/26; C11b-15/00 (27.6.79) UED
(4pp22) (J4 7043249)

QPPP ★ D13 53836B/29 ★J7
Food material prodn. - by adding dextrin and/or protein
food, and aerating
Q.P. CORP 31.07.73-JA-085443
(27.06.79) A23l-01

Food materials are blended under heating to give
like food; 1-5 wt.% dextrin and/or protein is adde
adjust the water content of the prod. to 65-75%; an
food is aerated. 31.7.73 as 085443 A23l-1/00 (27.
Q P CORP. (3pp22) (J50035353)

KIKK ★ D13 53837B/29 ★J7
Removing bitter taste from foods - by adding peptide com
serine, L threonine, glycine, L-alanine, L-glutamine or L-as
KIKKOMAN SHOYU KK 09.03.74-JA-026766
E19 (27.06.79) A23f-01/12 A23f-03 A23g-01 A23j-03 A2

Method comprises adding to bitter-tasting food a p
comprising L-serine, L-threonine, glycine, L-ala
L-glutamine or L-asparagine, and number of amin
components being ≤10. 9.3.74 as 026766 A23l-1/
A23f-1/12; A23f-3/00 A23g-1/00 A23j-3/00 (27.6.
KIKKOMAN SHOYU KK (8pp22) (J5 0121449)

NEST D13 85817W/52 =J7
High quality caseine prodn. from skimmed milk - by form
and whey and washing the curds in turbulent motion in a w
SOC PROD NESTLE SA 07.06.74-CH-007780
*(27.06.79) *NL7505-649 A23j-01/20*

Caseine and caseinates are made by progressively
ing the stability of a colloidal soln. with the comp
skimmed milk; converting the soln. into curds and
sepg. the curds from the whey; introducing the cu
the form of granules into a stream of wash liq.; le
the mixt. of curd granules and wash liq. under tur
conditions through ≥1 tube and finally sepg. the cu
from the wash liq. The amt. of water necessary to
the curds compared with known processes is reduc
rationalisation and reduction in size of the appts.
ble. 5.6.75 as 068099 (clg. 7.6.74-CH-007780) A2
(27.6.79) SOC PROD NESTLE SA

D13 02256V/02 =J7 9017-018
ritive milk product - having pasty consistency
PROD NESTLE SA 25.04.73-CH-005863 (09.06.72-CH-
)
*06.79) *DT2329-755 A23c-09/10*
ole homogenous milk prod. is prepd. by freezing
nilk contg. ≥ 19 wt. % of a non-fatty milk solids
ast 3.5 wt. % of edible fatty solids, and keeping
least 24 hrs. at a temp. between the freezing pt.
C (pref. between -15 and 16° C).
prod. has high storage stability; there is no
phases. 8.6.73 as 064627 (clg. 9.6.72; 25.4.73-
583, 005863) A23c-9/10 (27.6.79) SOC. DES
TS NESTLE S.A. (7pp) (J4 9048869)

D13 47535V/26 =J7 9017-019
preadable water-in-oil fat emulsion - having low calorie
protein content
KCENT EKON FORE 15.12.72-SW-016387
*06.79) *DT2360-911 A23d-03/02*
-contg. aq. phase into fat phase.
se is prepd. by using a protein concentrate obtd.
id butter milk from butter- and/or butter oil prodn.
h addn. of a smallamount of skim milk. Stability
in concentrate in aq. phase is improved by adding
oluble cpds. esp. citrates and/or phosphates. Aq.
-contg. phase is set to pH 6-7, e.g. with an alkali
alt or an ion exchange, and to a protein concn. of
-18 wt. %. Fat phase, prepd. by mixing oils and/
and opt. other additives, is heated to a temp.
rystallisation temp. 20-65%. Aq. phase is emulsi-
80-35% of fat phase without changing the temps. of
hases. Emulsion obtd is pasteurised, cooled and
Adjusting concn. of aq. phase prepn. of fat phase
ulsification take place at 38-50° C.
cess is not restricted to margarine. 13.12 73 as
A23d-3/02 (27.6.79) MJOLKCENT EKON FOREN-
pp) (J5 0029775)

D13 39733T/25 =J7 9017-020
product - from soya bean milk contg added fat
G KONG SOYA BEAN (HON -) 01.12.70-US-094205
*7.06.79) *NL7116-519 A23c-19*
ole, thermally stable cheese curds are made from
nilk contg. 1-10% edible fat. Pref. the corn beans
aked in water, milled with water and the milk
ted, homogenised with 1-10% fat such as butter-fat
agulated with a coagulating agent such as $CaCl_2$ or
erial culture and the curds drained off. The
e cheese curds have a fine texture and can be used
aking cheese by the 'hot pack' method. 30.11 71 as
3 (clg. 1.12.70-US-094205) A23c-19/00 (27.6.79)
KONG SOYA BEAN PRODUCTS CO. (5pp)(J4 7011972)

★ D13 53839B/29 ★J7 9017-036
prodn. - by adding ingredients to yeast-fermented pine leaves
IMIZU C 15.12.75-JA-148425
(27.06.79) A23l-01/20
leaves are immersed in water at 15-45° C until foam-
s observed by action of yeast, and then starting mat-
s for Miso are added, followed by cultivation in con-
onal manner. Miso obtd. has improved flavour and
. 15.12.75 as 148425 A23l-1/295 (27.6.79) SHIMIZU,
2pp22)(J5207289 8)

★ D13 53840B/29 ★J7 9017-037
storage stable Miso prepn. - with addn. of porous crushed
der obtd. by heating and crushing dried soybean
ISAN KAIHATSU KAGAKU 15.04.74-JA-042501
(27.06.79) A23l-01/20
d soybean is heated at high temp. then crushed and
obtd. porous crushed powder is added to Miso in an
. of 15-100%. The mixt. is then dried under hot air.
he dried Miso has high storage stability. 15.4.74 as
501 A23l-1/209 (27.6.79) SEISAN KAIHATSU KAGAKU
22) (J5 0132195)

STRK ★ D13 53858B/29 ★NL 7714-616

Rotary fluid atomiser preventing occlusion of air - for handling viscous liquids, esp. milk, at high pressure and temp.

STORK FRIESLAND BV 30.12.77-NL-014616
J02 (03.07.79) A23c-01/04 B01d-01/20

Milk and other viscous liquids are reduced to powder form by a rotary spraying technique which prevents the occlusion of air in the particles of powder, so that their density is as high as possible, and an important objection to the use of rotary sprays is overcome.

The atomiser has a box-like body provided on its outer surface with openings, and at its centre it has a hollow driving shaft through which the soln. to be pulverised is injected. The box-like body may be a circular disk with nozzles on its periphery. 30.12.77 as 014616 (8pp1014)

MECA- ★ D13 B/29 ★RU --64-081

Chives and onions sorting appts.

INST MECAN AGRICUL 06.05.74-RU-078676
(15.06.78) A23n-15/08

INFR- ★ D13 B/29 ★RU --64-673

Vegetable flakes prodn. - by dehydrating puree contg. emulsifier and antioxidants

INTR PROD IND FRUC 17.02.76-RU-084838
(10.07.78) A23l-01/20

MECA- ★ D13 B/29 ★RU --64-862

Cereals fine milling machine - has ribbed and inclined rolls

INST MECAN AGRICUL 07.02.74-RU-077547
P41 (10.07.78) A23n-17/02 B02c-04/02

ZAHA- ★ D13 B/29 ★RU --66-000

Animal feedstuff concentrate - comprises native sulphur, calcium carbonate and sugar beet waste

FAB DE ZAHAR 05.09.73-RU-075985
C03 (30.10.78) A23k-01

FOOD= ★ D13 53986B/29 ★SU -625-674

Milk products drying appts. - with slotted flow distributor in high speed rotary spray disc, for greater dispersion

FOOD EQUIP RES EXP 18.03.77-SU-464512
Q76 (05.09.78) A23c-01/04 F26b-03/12

The appts. includes a supply line to the cavity of a spray disc on a motor shaft within a drying chamber. To increase dispersion, the disc has a flow distributor with slots and an additional line feeding product into the distributor.

The distributor can be removed above the disc and has an annular accumulator chamber, while the lines are symmetrically arranged on the distributor perpendicularly to the shaft axis.

Blyumin G.Z., Osipov A.V., Pshenichnikov G.G. et al.
Bul. 36/30.9.78 18.3.77 as 464512 (3pp1358)

MIPR= ★ D13 53987B/29 ★SU -625-675

Milk sterilisation appts. - with delivery flow swirled by pipe threading before contacting surrounding hot air flow

MINSK PRODMASH EXP 29.04.77-SU-480518
(05.09.78) A23c-03/02 A23l-03/22

More efficient milk sterilisation appts. comprises a chamber for hot air treatment of the milk, with an internally threaded milk supply pipe, and a hot air supply chamber which is pref. annular and concentric with the pipe.

The chamber has a float valve to maintain a constant milk level by controlling the discharge line. A swirling milk flow is discharged into the treatment chamber together with air at 200-300 °C which heats the milk to 120-150 ° C. The air supply creates a pressure which prevents the milk boiling.

Dubinskii L.R., Chaikovskii A.A., Soloveichik S.L.
Bul. 36/30.9.78 29.4.77 as 480518 (2pp1358)

LIBU= ★ D13 53988B/29 ★SU -625-676

Drink prodn. from buttermilk - by souring with symbiotic bacterial culture with addn. of yeasts, opt. fungi, and enriching with sodium caseinate

LITH BR BUTT CHEESE 21.12.76-SU-431089
(D16) (05.09.78) A23c-09/12 A23c-17

Drink is produced from buttermilk by pasteurising it; cooling; introducing an additive enriching the drink in proteins; introducing a lactic flora micro-organisms; cool

-ing and pouring into containers.

This process is improved by souring the drink with a symbiotic prepn. contg. lactic and acetic flora bacteria and yeasts (opt. fungi can be used).

The proteinaceous additive is sodium caseinate. The souring preparation is introduced in an amt. of 1-15% (pref. 5-8%) and sodium caseinate 0.3-1.2% (pref. 0.6%) w.r.t. the buttermilk.

By this method, oxidising processes are prevented and the taste and consistency of the drink is improved.

Sukhotskene I.I., Matulite A.A. Bul. 36/30.9.78 21.12.76 as 431089 (2pp70)

LERE= ★ D13 53989B/29 ★SU -625-677
Gassed drink prepn. from whey - includes heating, cooling, clarifying, flavouring and specified two/stage carbon di:oxide treatment
LENGD REFRIG IND 06.12.76-SU-427487
(05.09.78) A23c-21

Gassed drink is prepd. from whey by heating it, cooling, clarifying, mixing with additivites, cooling again, saturating with CO_2 and pouring into containers.

The process is improved by carrying out the heating by the steam-contact method, with subsequent de-aeration and cooling to 70-90 °C; simultaneously admixing the additives and saturating the drink with gaseous CO_2; and cooling from 40 °C to 2 °C under a press. of 3-5 atm. gauge.

This process is carried out continuously; the quality of the drink is improved and so is the storage stability. In order to avoid foaming, the pressure is pref. reduced in two stages, namely from 3-5 atm. to 1-2 atm. gauge in the first stage, and then to 0.4-0.6 atm. gauge in the second step.

Tishin V.B., Maslov A.M., Titkov O.G. et al. Bul. 36/30.9.78 6.12.76 as 427487 (2pp70)

STAR/ ★ D13 53990B/29 ★SU -625-678
Hot air drying of tea leaf - by suspending and removing finer fractions from first section, leaving coarse leaf for final drying
STARODUBTSEVA V P 21.04.76-SU-350828
(05.09.78) A23f-03

Tea is dried by blowing hot air through a layer of fermented leaf. To increase the yield of the best grades, prevent losses and to simplify subsequent grading, the air is delivered at 4.5-5.5 m/s.

Leaf is carried on a conveyor into a first enclosed drying section where the finer fractions are held suspended and when dry carried into a side chamber where they are separated from the air and removed on a belt to a packing unit. The remaining large fraction moves into a second section where drying is completed and from which it passes to normal grading. The method prevents over-drying of the finer fractions.

Starodubtseva V.P., Bul. 36/30.9.78 21.4.76 as 350828 (2pp1358)

KALE= ★ D13 53991B/29 ★SU -625-679
Sweets feeding and packing appts. - with row guides on conveyor, for different sweet designs
KALEV CONFECTIONARY 11.01.77-SU-445090
(05.09.78) A23g-03

Appts. for sweets processing includes tiltable casting moulds with cells of various designs, an ejector and a packer. To increase output and improve quality, the conveyor receiving the ejected sweets has longitudinal guides and each mould is mounted so that the cells of the same design are located parallel to the guides.

The number of rows between the guides pref. corresponds to the number of rows of cells with the same design. Immediately after the conveyor there is pref. an accumulator of similar design to the conveyor.

Oks B.L., Argus K.Ya., Bul. 36/30.9.78 11.1.77 as 445090 (2pp1358)

MAGA= ★ D13 53992B/29 ★SU -625-680
Fodder yeast biomass prodn. from press cake and stalks of vine - includes wetting material with aq. effluents from wine prodn., then hydrolysing, saccharifying and growing yeasts
MAGARACH VIT WINE 04.01.76-SU-309948

ded by utilising in this process vine stalks. Befo
hydrolysis, the press cake and the stalks are wet
separately or jointly with e.g. effluents from the
prodn. (residual liquor from the yeast culture; su
contg. washing water, etc.)
The hydrolysis is carried out for 30-60 min wi
press. increased to 2-3 atm. After the saccharif
the mass is cooled and ammoniacal water is adde
4.0-5.0. Subsequently yeasts Candida scotti are
in the medium with intensive aeration at 38-39 °C
18h. The pH is maintained at 4.0-5.0
The yeasts contain 40% of protein. The yield i
ased by 20-25% compared with the known process
growth of the yeasts is stimulated by substances c
in the aq. effluents from the wine prodn.) The co
effluent purification is reduced. The consumption
er is decreased. Mineral acids are not used.
Troitskii A.S., Razuvaev N.I., Bul. 36/ 30.9.78
as 309948 (2pp70)

YADR/ ★ D13 53993B/29 ★SU
Appts. removing nut pericarp - with spring-biased metal m
outer stationary and inner rotary cylinders, to prevent crus
YADROV A A 14.03.77-SU-463075
(05.09.78) A23n-05

Appts. for removing the pericarp from walnuts an
onds comprises a fan located below two cylinders.
prevent crushing of the nuts, the cylinders are co
with each other, the outer being fixed and the inne
atable. The surface of each cylinder is formed fr
ers of spring biased metal mesh.
A grid is pref. mounted ahead of the fan and th
springs have set screws for changing the gap betw
cylinders. The fan air flow blows pericarp throug
grid and into a discharge trough, while the nuts fa
their own weight into a separate discharge.
Yadrov A.A., Svezhenets V.N., Bul. 36/ 30.9.78
14.3.77 as 463075 (2pp1358)

OYFA D13 69238Y/39 =SU
Fodder additive for ruminants - contains sugar alcohols to
blood sugar level and milk yield (NL 21.9.77)
FARMOS OY 19.03.76-SF-000746
*C03 (28.08.78) *DT2710-930 A23k-01/14*

Fodder additive for increasing the blood sugar lev
milk yield of ruminants contains as active ingredi
5- or 6-valent sugar alcohol (I), specifically xylita
bitol, and/or dulcitol.
A suitable mixt. of (I) obtd. waste prod. during
xylitol from plant material comprises (dry basis)
xylitol; 20-35% arabitol; 10-25% mannitol; 5-15% s
5-10% dulcitol and 5-10% rhamnitol.
(I) improves the sugar balance in cows etc. in
the same way as propylene glycol, glycerine or pr
ates, so can be used to prevent ketonaemia during
of heavy milk prodn. (I) are only slowly digested
rumen and any which is digested in converted larg
propionic and not acetic acid.
Merensalmi M.J., Bul. 36/30.9.78 18.3.77 as 4
(4pp)

TECA- ★ D13 54299B/29 ★SW
Analysis of both water-soluble and insoluble food fibre co
- by breaking down protein and starch with enzymes an
sample through glass filter and ultrafilter in succession
TECATOR AB 26.09.77-SW-010720
J04 R16 (30.04.79) G01n-33/02

GASB/ ★ D13 54308B/29 ★SW
Cheese press using inflatable press elements - eliminates
for pre-use positioning of moulds (DK 18.6.79)
GASBJERG K 29.11.77-GB-049514
P13 (02.07.79) A01j-23

Cheese press has a longitudinal base for a number
erally placed rows of cheese moulds and is provid
press yokes lying over and along the rows. The y
are fitted with inflatable press elements which exp
downwards against the lids fitting inside the mould
The moulds therefore, are not required to be p

eadily be interchanged beneath a yoke since the latter
not have individual press elements in predetermined
positions. 29.11.78 as 012311 (-pp1183)

D13 35232A/20 #US 4159-612
op producing machine - with spring loaded detents for stick ir
ng and in wrapping star wheel pockets
AKER PERKINS LTD 03.11.76-GB-045621 (26.10.77-US-845633)
*(03.07.79) *DT2749-291 A23g-03/12 + B29c-03/02 B29d-03*
s. producing sweets comprises a stepping pocketed
ing conveyor with a toffee rope fed in timed relation-
so that its leading end registers with successive pock
nd can be severed and compressed into the pockets
e at rest. The pockets pass to a second station for
insertion and final compression.
he stick is resiliently nipped against a guide surface
ng insertion and the nipping pressure is maintained
ng movement to a delivery station. The nipper is pref.
ring-loaded plunger slidable in a bore at right angles
pocket. The conveyor is pref. a wheel rotatable abou
rtical axis. 26.10.77 as 845633 (10pp1358)

N ★ D13 54348B/29 ★US 4159-781
e processing tank contg. brine - consists of two glass fibre
forced thermosetting resin halves with perforated retainin
es in top half
WENS-CORNING FIBER CORP 10.07.78-US-922946
92 Q32 (03.07.79) B65d-07/02
ass fibre reinforced thermosetting tank for processin
es comprises upper and lower halves each with a cylir
al and a spherical part, the cylindrical parts being
ed together. The upper spherical part has an upwardl
vergent frustoconical manway.
A pair of perforated semicircular olive retaining plates
emovably mounted in the upper half adjacent the man-
lower end with straight peripheral edges abutting each
er. The lower spherical part pref. has thickened glass
reinforced bearing parts to engage concrete mounting
dles. 10.7.78 as 922946 (5pp1358)

L/ D13 45906A/26 =US 4159-87
ker extruder unit for shaped pieces of dough - makes croquette
d french fried potatoes, etc. from powder
WILLEMSEN W H 09.08.77-NL-008771 (22.02.77-NL-001870)
*P28 (03.07.79) *BE-864-133 A21c-01*
paratus for producing shaped dough pieces, e.g. for
ench fries or croquettes, comprises a platform movabl
rtically in a frame with an extrusion piston reciprocable
a cylinder with a lower extrusion chamber and upper
xing chamber.
Powder and liquid are fed to the mixing chamber and a
rrer surrounds the piston rod in the chamber and is rot-
ble relative to the frame. A press plate over the cylin-
r end opposite the piston has extrusion holes, and the
ston is spaced from the cylinder during movement. Mix-
re flows to the extrusion chamber due to suction on move-
ent away from the press plate. 22.2.78 as 879911
pp1358)

UT- ★ D13 54385B/29 ★US 4159-952
sily dispersible powdered hydrated emulsifiers - prepd. by
aying mixt. of water and melted emulsifier
SOUTHLAND CORP 21.12.77-US-862908
E17 (D21 E12) (03.07.79) A21d-02/16 A61k-07 B01f-17/34
drated powdered emulsifiers are prepd. by (a) melting
emulsifier, (b) pumping the melt through a conduit, (c)
jecting water at a temp. above 100°F into the stream of
nulsifier, (d) sprying the mixt. into a cooling chamber
obtain a powder contg. 2-15 wt.% water.
Suitable emulsifiers are fatty acid partial esters of po-
ols, their alkoxylated derivs, succinic acid half esters
monoacrylated polyols, alkoxylated condensates of
onoglycerides, stearoyl-2-lactylate and its Na and Ca
alts, diacetyl tartaric acid esters of partial fatty esters
polyols, and mixts. of these.
The prods. are as readily dispersed as liq. hydrates
t are easily handled powders. 21.12.77 as 862908
pp955)

ASMU/ ★ D13 54388B/29 ★US 4159-955

French fries dispensing bin - contains perforated bottom curving re-entrantly upwards at rear between straight sides

ASMUS D 09.11.77-US-849758

(03.07.79) B01d-23/02

A bin has a perforated bottom extending horizontally from the front towards the rear then curving smoothly upwardly and re-entrantly to capture food segments while the perforations permit drainage of liquid.

Side walls from front to rear form closures for the re-entrant part and pref. project rearwardly a substantial distance beyond the re-entrant part and below the horizontal part of the bottom. One side is pref. of constant height and the other wall height reduces. 9.11.77 as 849758 (6pp1358)

HERM/ D13 31502A/17 #US 4159-982

Modifying starch with casein or a caseinate - giving a complex with limited thickening and swelling properties, e.g. for use in foods

HERMANSSON A M I 08.10.76-SW-011194 (04.04.78-US-893412)

*A11 (A97) (03.07.79) *NL7711-010 + A23j-01/20*

Formation of a protein/starch complex having protein in the form of casein or caseinate, and a protein/starch wt. ratio of 1:20-3:2. Starch is root-derived, seed-derived or stem-derived. Complex has emulsion-stabilising properties, having a reduced degree of gel structure and thixotropy w.r.t. non-complexed starch.

Pref. starch is derived from arrowroot, potato or cassava roots, corn, wheat, waxy maize, sorghum or rice seeds, or sago stems. Protein/starch wt. ratio is 1:4-4:3. Complex contains polyvalent ions. Prepn. is by complexing starch with casein(ate) and heating together in an aq. reaction medium > starch-gelation temp. for a period inadequate to cook the starch.

Complexes are used in sausages, esp. frankfurters, minced meat prods., and as half-solid and liq. prods., as replacers for eggwhite. 4.4.78 as 893412 (6pp931)

PLAC D13 14896X/09 =US 4159-988

Synthetic phospholipids with surfactant activity - used as emulsifiers in detergents,ointments, creams, dental pastes, soaps and foodstuffs e.g. margarine

MAX PLANCK GES WISSENSCH 06.08.74-DT-437832

*B04 (B07 D21 D25) (03.07.79) *BE-832-182 A23j-07 C07d-317 C07f-09/02 C11c-03*

New synthetic phospholipids are prepd. by reacting a (cyclo)aliphatic polyhydroxide cpd. having one free OH gp., the remaining OH gps. being protected, with an w-haloalkylphosphoric acid dichloride of formula $Cl_2P(=O)-O-Alk-X$ (I) (where X is F, Cl, Br or I) and reacting the resulting reaction prod. with an amine of formula $NR_1R_2R_3$ (where R_{1-3} are each H or methyl). Improvement is that Alk is 6-16C (cyclo)alkyl.

Prods. have valuable pharmacological properties. Cpds. which are analogous to lecithin are potent surfactants. They may be used as detergent additives. 18.1.78 as 870326 (+5.8.75-US-602181)(8pp936)

MICR- ★ D13 54429B/29 ★US 4160-038

Lactic acid ferment flavoured pet food - having a pH of 3-6, esp. suitable for dogs

MICROLIFE TECHNICS 09.08.76-US-712492

C03 (D16) (03.07.79) A23k-01/10

Semi moist pet food for Carnivorous animals, comprises a deformable shape retaining hydrated matrix of meaty protein and vegetable protein with a moisture content of 15-30% the matrix is mixed with bacteriostatic low. mol. wt. solids and an effective level of an antimycotic agent.

The compsns. is packagable under non-sterile conditions and further comprises a flavouring from an edible material fermentate of lactic acid producing bacteria in an amt. sufficient to produce a pH of 3-6. The edible fermentate is prepd. by growing the bacteria in the presence of a meaty or vegetable protein or their mixts. until the pH from lactic acid and the flavouring is produced.

The pet food is partic. palatable to dogs and the levels of sugars needed for bacteriostatic purposes is reduced, and it can be packaged under non-sterile conditions. 9.8.76 as 712492 (5pp957)

STAD D13 11930B/07 =US 4160-039

Simulated french fried potatoes - oven cooked using novel yeast, vegetable oil and water coating compsn.

STANDARD OIL CO (IND) 19.08.77-US-825863

*(03.07.79) *BE-869-716 A23l-01/21*

Stimulated french fried potatoes are prepd. by forming a blend contg. 2-10 wt. % inactive dried yeast, 50-100 wt. pts. of vegetable oil, and 0-50 wt. parts of water, emulsifying the blend; coating the raw french fried with the emulsified blend; and baking coated french fries at 375-450 °F for 5-20 mins.

Pref. the inactivated dried yeast is Candida utilis. Raw french fries are rozen and, when coated, refrozen prior to baking. Blend comprises 5 wt. % inactivated dried yeast, 75 wt. % vegetable oil and 20 wt. % water. Baking is at 425 °F for 13 mins.

Baked french fries are prepd. having the texture and flavour of deep fat fried potatoes, but without the use of a deep fat fryer. 19. 8. 77 as 825863 (2pp931)

SCHR/ ★ D13 54430B/29 ★US 4160-041

Solid animal feed supplement block prepn. - by in-situ reaction of metal oxide and a water soluble phosphate

SCHROEDER J J 14.02.77-US-768324

C03 (03.07.79) A23k-01/22

Prepn. of a solid animal feed supplement block prod. comprises admixing ⩾0. 5 wt. % of a metal oxide with an aq. sugar soln. contg. 10-90 wt. % sugar. The metal oxide is then hydrated to provide a sugar soln. with soluble metal ions having a pH of 9-11.

The soln. is then reacted with 2-5 wt. % of a mono alkali metal or ammonium orthophosphate or phosphoric acid to produce a prod. with a pH of 3-6 and amts. of phosphate additive and metal ions being sufficient to solidify the supplement into a solid block. The prod. is then recovered. The metal oxide is magnesium oxide, aluminium oxide and /or calcium oxide.

Solid feed block offers the advantage of free choice feeding of animals reducing labour and expense incurred otherwise to mix the feed supplement with the animals feed rations. 14. 2. 77 as 768324 (9pp954)

FARR/ D13 86149A/48 =US 4160-042

Removing caffeine and/or chlorogenic acid from aq. vegetable extracts - esp. coffee using ligneous solid absorbent esp. carob shells

FARR D R (NEST) 29.07.77-CH-009410

*(03.07.79) *BE-867-514 A23f-01/10 A23f-03*

An aq. extract of a vegetable material contg. caffeine and chlorogenic acid is treated to reduce its caffeine and chlorogenic acid content.

The aq. extract is contacted with a solid ligneous adsorbent of vegetable origin in divided form at 0-100 °C; the adsorbent is then separated from the aq. extract; the adsorbent is then washed with water at 0-30 °C to displace non-specifically associated soluble constituents and washing waters combined with aq. extract; the adsorbent is then subjected to lixiviation with hot water at ⩾60 °C to desorb caffeine and chlorogenic acid and regenerate adsorbent.

The regenerated adsorbent is then contacted with the aq. extract and the preceding cycle repeated until a desired preselected decaffeination and/or deacidification level is obtd. 17. 10. 77 as 842987 (10pp931)

NEST D13 67587W/41 =US 4

Fruit-contg processed cheese prodn - with pretreatment of fr
de-ionised water to remove tannin and prevent discoloration

SOC PROD NESTLE SA 01.04.74-CH-004490

*P13 (03.07.79) *DT2425-214 A23c-19/12*

Processed cheeses contg. walnuts are produced by
ting the walnuts with 3 successive immersions of de
alised water. Water is free from iron salts and sal
heavy metals, and has cations capable of reacting w
nnin and tannic acids to form insoluble tannates.

The three immersions last for 14-16 hrs, 4 hrs,
hrs. respectively. Tannin is removed from the wal
which are then combined with a mass of processed c

Removal of tannins from nutmeats, such as walnu
ing demineralised water prevents local discolouratio
the processed cheese. 26. 3. 75 as 562002 (3pp931)

TAIT ★ D13 54480B/29 ★WP 79

Red pigment for textiles, foods and medicines - prepd. from
cpd. and prim. amine

TAITO KK (TOYA/) 15.12.77-JA-151145

B07 E24 F06 (12.07.79) C07d-221/04 C09b-57 C09b-61 C1

D/S: N(DT, GB, US) + E(FR).

A novel red pigment composition is obtained by reac
substance containing primary amine with a substanc
obtained by hydrolysis of material containing an ylid
compound with a -COOH or -$COOCH_3$ in the 4 positic
a ylidoid skeleton.

As the pigment composition is derived from natur
materials it is a non-toxic material for colouring te
food products, medical products, etc.

14.12.78 as JA0054 (16pp1412).

(J) ISR: J52053934; J53134824; J77013971.

COOR- D13 ✓ 47147B/26 =WP 79

Edible yeast product used as cocoa substitute - prepd. by roas
food yeast

COORS FOOD PRODS CO 05.12.78-US-964802 (22.12.
863079)

*(D16) (12.07.79) *BE-872-888 A23g-01 A23l-01/28 C12c-1*

D/S: N(SU) + E(ZR, CF, KA, GA, SN, TS, TO).

A process for preparing an edible yeast product com
ses roasting a food yeast.

The product is used as an extender, substitute or
placement for cocoa or chocolate in foodstuffs. Unli
previous prods. it has the same colour, texture, tast
and aroma as cocoa. It can be used as a total replac
for cocoa powder without addn. of other flavouring ag

18.12.78 as US0234.(20pp597).

(E) ISR: US3102816; US2957769; US4119740; GB-17
US4097614; 1 Journal Reference.

See Also

D26 DS 2344586
D16 J5 4073182
D15 J5 4073463
D16 J7 9017038
D16 J7 9017039

D14: FOODSTUFF MACHINERY

★ D14 52580B/29 ★BE -874-734
having concentric rings of axial mixing elements - fo
ing aerated food and plastic prods.
KES E T LTD 10.03.78-GB-009674
J02 (02.07.79) B01f
comprises a cylindrical outer jacket with an end
with concentric rings of axial mixing elements. A
turns in the outer jacket and carries on its face other
g elements placed in several annular rings. The mi-
elements of jacket and rotor interlock with each other
are each formed by internal and external surfaces,
y cylindrical, and by straight surfaces forming the
of grooves of which the axes are placed following di-
nt tangents of an inner circle concentric to the partly
drical surfaces.
ixer may be used to produce aerated prods such as
, expanded plastics etc. The construction of the mi-
s such that all risk of the material talking a 'short
and missing the path through the mixing elements is
led. The inclined mixing elements exert a pumping
t. It is possible because of their structure, to reduce
xial length of the mixing elements. This allows for
ng the end walls, the rotor and/or the intermediate
by an injection moulding process in a plastic material.
79 as 874734 (14pp1330)

★ D14 53058B/29 ★FR 2405-685
eam mixer for domestic use - having planetary gear train for
mixing and providing different shaped prods.
B SA 13.10.77-FR-030870
8 (15.06.79) A23g-09/12 A47j-43/04
ehold ice-cream freezer comprises a motor, with a
, gear, which drives a mixing blade in a container
gh a planetary chain of pinions. The walls of the con-
r are curved or shaped like polygons inscribed in a
le.
he motor is mounted on the container and drives the
ng blade through the gear chain. The end of the blade
be made to describe a very wide range of curves by
ifying the ratio of the number of teeth on the pinions.
he mixer arm is fitted with a device so that the lower
can be retracted when the iced prepn. has attained the
red viscosity. The planetary movement of the mixing
leads to partic. efficient mixing and blocks of iced
l. can be obtd. in a variety of shapes, such as triangu-
square, polygonal etc., instead of the circular form
. hitherto. 13. 10. 77 as 030870 (18pp519)

G/ ★ D14 53063B/29 ★FR 2405-747
ing and grinding appts. for various prods. - with central shaft
beaters running in squirrel cage with angled bars
UIGUE J P A 01.07.77-FR-020333
41 (15.06.79) B02b-03/04
lling and grinding appts. for various prods., such as
ee beans, consists of a central shaft with radial arms,
rying beaters or hammers, running in a fixed squirrel
e made from concentric rings fitted with parallel, equi-
ant bars.
Each hammer has a rectangular section and makes an
le of 20-50° with its arms, depending upon the prod.
g treated. Rings, arranged between the ends of the
ts., support the bars of the squirrel cage. Each bar has
shape of a rectangle and the edges are sufficiently
rp to start the rupturing of the shells surrounding the
ins to be treated.
The angle of incidence of the bars and their relative
cing and the speed of the hammers produce a more or
s speedy shelling of the grains and a more or less fine
nding of the prods.
The premature wear of certain zones of the cage can
ily be remedied by rotating it a fraction of a turn.
. 77 as 020333 (6pp519)

JOVA/ ★ D14 53101B/29 ★FR 2406-369
Heating panel or hot plate - comprising electric resistance heater strip embedded in baked zircon sand refractory
JOVANOVIC D 14.10.77-FR-031673
L02 Q74 R59 (15.06.79) A21b-01/22 C04b-35/48 F24c-07/06 H05b-03/28

The rigid panel is made of a stable refractory which conducts heat, but does not conduct electricity. The refractory has high density, high specific heat, and a negligible coefft. of thermal expansion. Inside the panel is at least one flat zigzag metal strip, the width of the strip being several times its thickness. More than one flat zigzag may be used in one or more planes parallel with the large surfaces of the panel.

The panel may have undulating surfaces and/or a protective coating. The panel is pref. made by placing a moist mixt. of refractory and binder in a die, then the zigzag strip(s), followed by another layer of the mixt. and applying 150-500 bars to make a biscuit which is removed from the die, dried, and baked 48-72 h. at 1000-1300°C.

The panels can be made by non-skilled personnel, and have high heat yield plus long life. 14. 10. 77 as 031673 (16pp1144)

HELW/ D14 06615A/04 =GB 1548-511
Liq. solids sepn. of oleaginous seeds - by sudden pressure release and two separation washing stages of pulp
HELWIG E 16.07.76-DT-632045
*(D23) (18.07.79) *DT2632-045 B01d-11/02*

Liq. is sepd. from the solids of seeds, fruit and/or plants by feeding to a vessel, pressurising with gas, and suddenly releasing the pressure so that the cell walls are ruptured. The mash is then conc in a continuous leaching operation with cold liq.

After removing unusable solids, the liq. is further treated to give the required purity of juice, oil or sugar. The gas is pref. natural or ozone-sterilised air, and the pressure release disintegration may be repeated before leaching. The apps. pref. includes a vessel with a stack of pressure chambers and a bottom flash chamber for collecting treated material. 18. 7. 77 as 030006(7pp1358).

WEIS- ★ D14 53134B/29 ★GB 2011-827
Detecting presence of metal in moving viscous strand esp. food - the material being passed along guide trough beneath metal detector to cutter blade
WEISERT LOSER 05.01.79-DT-900280
P62 (18.07.79) B26d-05

Appts. for detection of metal in highly viscous material includes a guide trough arranged beneath an electronic metal-detector. A drop-blade is arranged above the trough and a swingable flap is let into the bottom of the trough. Part of the trough is formed by a conveyer belt.

Used for monitoring products in food and confectionery industries. The conveyer belt positioned beneath the guide trough ensures unimpeded advance of the strand of viscous material. Cutaway portions of the strand are removed by diversion through the swingable flap of the guide trough. 26.1.79 as 002903(4pp1044).

BOSC ★ D14 53158B/29 ★GB 2011-992
Household appliance with grooved spindle for mounting tool carrier - which includes fingers having radially inward nose portions
BOSCH-SIEMENS HAUSG 14.01.78-DT-U00995
Q61 (18.07.79) B01f-07/30 F16b-21/07

A household appliance comprises a spindle having an annular groove and a tool carrying member rotatably mounted to the spindle. The member has fingers disposed so as to be circumferentially spaced around the spindle. Each finger is provided with a radially inward nose portion disposed to resiliently locate within the groove of the spindle. The fingers are disposed internally of the tool carrying member and are intergrally moulded of plastics material.

Used in household appliances having a stirring bowl and stirring whisk tools. Because the fingers are disposed internally of the tool carrying member, damage and pollution is largely avoided. The fingers enable the rotatable tool carrying member to be rapidly and securely fastened on the spindle without additional parts. 7.12.78 as 047546(4pp1044).

CSAK/ ★ D14 B/29 ★HU T016-67(
Classifying fruit or vegetables - using machine with a series o
cylindrical units
CSAKI M 20.01.78-HU-CA0421
P43 (28.06.79) A23n-15 B07b-13/04

RYAZ= ★ D14 53994B/29 ★SU -625-68
Bulb upper growth cutter - with flat curvilinear knives on rotary arms within drum
RYAZAN AGRIC EQUIP 24.01.77-SU-446961
(05.09.78) A23n-15/08

Machine for cutting the upper grown from bulbs, as in Parent Certificate No. 194458 includes an agitator with relatively offset arms of elliptical section with the major axis at an angle to the longitudinal axis of the agitator shaft.

To improve cleaning, the arm ends carry flat curvilinear knives mounted perpendicularly to them, the outer edge of the blade of each knife being equidistant from the inner surface of a drum holding the agitator.

Naumov L.V., Kukartsev N.V., Zykov V.I. et al. Bul. 36/30.9.78 24.1.77 as 446961 Add to 194458 (2pp1358)

KDPE= ★ D14 54013B/29 ★SU -625-73
hydrocarbon(s) extraction control system - has output from produc
composition regulator to constant coefficient multiplier
KRASD PET GAS PROC (GASP=) 28.03.77-SU-465959
H05 J01 R26 (01.09.78) B01d-11/04 G05d-27

Known system for automatic control of hydrocarbo
traction from raw material, contains a solvent flow
regulator and an adder, to vary the solvent feed as
pensation. Now to increase the quantity and impro
product, whenever the column load varies within 25
its setting, a product compsn. regulator is connect
a constant-coefficient multiplier. This sets the sol
regulator according to the product compsn. Such c
is useful in oil-refining. Other named fields of app
ion are petrochemicals, chemicals and foodstuffs.
Kirakozov O.V., Emelyanov M.M., Shumov Ya.I.,
36/30.9.78 28.3.77 as 465959 (3pp840)

JANO/ D14 72533Y/41 =US 4
Steam injection heater for fluids e.g. food or chemicals -
sterilising long life milk, fruit juices etc.
JANOVTCHIK V J (INDA-) 09.06.76-GB-023895
*A97 P34 +Q78 (03.07.79) *BE-855-511 +B01f-03/04*

A steam injector for heating flowable product, parti
in producing long-life milk, comprises a closed cha
holding a stack of flat discs between product inlet an
let with a pressurised steam space around the stack
disc has a central hole so that these define a central
age communicating with product inlet and outlet.

The planes of the discs is perpendicular to the fl
ection, and one face of each disc has non-radial cho
channels parallel to each other from disc periphery
central hole. The channels are offset from the radi
ords and steam is injected through the channels into
product in the passage. The discs are pref. of PTF
The injector can operate non-stop for 70-80 hr. 26.
as 945994 (+8.6.77-US-804657) (5pp1358)

D15: WATER TREATMENT

ARIA/ ★ D15 52561B/29 ★BE -873-637
Prevention of corrosion and scaling inside water pipes - via appts. exposing water to electromagnetic field obtd. using direct current
ARIAS J V 25.01.78-DT-803066
(15.02.79) C02b

The device consists of a pipe fitted at each end with connecting threads or flanges so the pipe can be included in a water circulation system. The pipe is sorrounded by an electromagnet fed with direct current, whereas the pipe contains a support in which a diffuser is mounted. The diffuser consists of a shaft fitted with a helical blade and free to rotate in its support; the helical blade is on the outlet side of the pipe.

During the travel of the water through the magnetic field several of the physical and chemical properties of the water are altered, i.e. the sedimentation of crystals; the density; electrical conductivity; surface tension; solubility of salts; and the pH. These alterations prevent the deposition of scale and also cause the water to lose its corrosive properties; the result is that no chemical treatment of the water is required. 22.1.79 as 873637 (11pp1144)

REAK- ★ D15 52597B/29 ★BE -874-799
Simplified process for recovering uranium cpds. - from waste water arising from ammonium uranyl carbonate conversion
REAKTOR-BRENNELEMEN 13.03.78-DT-810776
E31 K05 M25 (02.07.79) B01d C22b

Uranium cpds. are recovered from $(HN_4)_2 CO_3$ and NH_4F solns. and fluorinated waste waters which arise from uraniferous filtrates obtd. in the conversion of ammonium uranylcarbonate to nuclear combustible VO_2. Process comprises heating the liq. to 95°C in a single passage through an instantaneous electric water-heater. This liberates CO_2, down to a conc. $<$ 6g/l. and NH_3. Then, at 50-
55°C, NH_3, air and H_2O_2 are led into the residual sol
pptn., accelerated by nucleating crystals, of U cpds.
place down to a concn. $<$ 10 mg/l. These are oxidise
water vapour in an oven at 800°C to U_3O8 free from
The process is partic. useful in the retreatment o
uranium. It is simpler and less costly than previous
ed methods, and requires little energy expenditure.1
as 874799 (7pp1331)

HAEN/ ★ D15 B/29 ★BR 77
Tank for digestion of sewage water
HAENSELL G A A 14.12.77-BR-008318
(03.07.79) C02c-01/16

DAIL D15 14773U/11 =DS 22
Cleaning of tube systems - sponge spheres retained between
are forced through the tube system
DAICEL KK 26.08.71-JA-065385
*J01 +P43 (12.07.79) *DT2241-450 B01d-31*

A chamber with a semipermeable membrane, for use
filtration, ultrafiltration and reverse osmosis in the
alination, thickening or purification of liquids, is fitt
with a network of inlet, outlet and bypass pipes, with
es in each and two filters in two of the bypass circuit
valves can be so set that elastic solids can be recipr
between the filters and each side of the tubular memb
The pref. elastic solid is a sponge ball with a dia. wh
is at least equal to the inside dia of the membrane, u
$2\frac{1}{2}$ times the dia.

This simplifies the cleaning operation of the memb
and improves the cleaning efficiency. 23.8.72 as 241
(6pp39)

★ D15 52664B/29 ★DT 2758-415

acid hetero-polycondensate prodn. - from silicic acid deriv., and water, useful as membranes and adsorbents

AUNHOFER-GES FORD ANGE 28.12.77-DT-758415

(12.07.79) B01d-59/12 C08g-77/22

n. of silicic acid heteropolycondensates (I) comprise:
ensing $\geqslant$ 1 silicic acid deriv. SiR_4 (II) (R=H, halo,
y or NR'_2; but not all H. R'=H and/or lower alkyl)
$\geqslant$ 1 silane $SiR_nR''_{4-n}$ (II) (R"=alk(en)yl, aryl or aralk
3) in presence of water (at least sufficient for hydrol
and opt. in presence of condensation catalysts and/or
ent.
) comprises, expressed as oxides, 35-90 (60-70)wt.%
nd 10-50 (30-35) wt.% (II).
pt. $\geqslant$ 1 silane $SiR_n(R'''Y)_{4-n}$ (IV) (R'''=alkylene, (alkyl
ylene or alkylenephenylene; Y=halo, opt. substd.
o or anilino, aldehyde, keto, COOH, OH, SH, CN,
oxyphenyl, diazo, carboxylate ester, SO_3H or PO_3H_2)
or an oxide difficulty soluble in the reaction medium
ts precursor) of Gps. Ia-Va, IVb or Vb are included
xides (IV) is 0-15 (0-8) wt.% and the oxide 0-40
0) wt.%.
) are useful as membranes (e.g. ultrafiltration of
exchange)and adsorbants (e.g. for removing pollutant
water). They are stable to temp. pressure and sol-
s and adsorbed materials are easily removed by trea
with water, steam or dilute acid. 28.12.77 as 758415
1251)

J ★ D15 52719B/29 ★DT 2800-19

enerating mixed ion exchange resins for water desalination - by washing then removing middle layer of mixed resin

MITSUBISHI CHEM IND KK 03.01.78-DT-800194

01 K06 (12.07.79) C02b-01/76 C02c-05/08

hod for regenerating mixed anionic and cationic ex-
nge resin comprises backwashing with water to separate
resin into upper, middle and lower layers. The upper
lower layers are regenerated separately then remixed
The middle layer of mixed resin is withdrawn and add-
to the resin mixt. during the next regeneration process
same stage before backwashing. Either the upper or
er layer is also removed for regeneration and pref.
particles are removed from the middle layer.
Used for water desalination e.g. in thermal or nuclear
ver station boiler systems. Since only pure resin lay-
are regenerated loss of regeneration efficiency and
-exchange capacity are prevented. Water quality
thus improved esp.the amt. of impurities such as Na^+
roduced from any cation exchanger mixed with the
ion exchange during regeneration with NaOH. 3.1.78 as
0194 (15pp1251)

ST ★ D15 52733B/29 ★DT 2800-425

er for reverse osmosis or ultrafiltration - having cylindrical filter ment inside tube with spiral path for concentrate to keep filte face clear

KUSTERS E 05.01.78-DT-800425

J01 (12.07.79) B01d-29/20

lter arrangement has $\geqslant$ 1 tubular filter body with a
rous wall through which the liq. flows radially. This
ter retains particles above a certain size. The surface
a spiral groove in it which forms a spiral passage for
liq.
Sprial passage is completed by a tube which surrounds
element. The passage runs along the axis of the ele-
ent.
Used for ultrafiltration e.g. recovery of water from
fluent. The use of the spiral passage ensures that the
rface is kept clean during the filtration and allows a
iform pressure to be maintained. 5.1.78 as 800425
6pp1053)

RU ★ D15 52745B/29 ★DT 2800-516

oftening water by ion exchange - using exchanger in magnesium rm to replace calcium ions by magnesium

PERMUTIT GMBH 03.01.78-DT-800516

(12.07.79) C02b-01/42 C02b-07

ater contg. alkali or alkaline earth ions is softened by
reating with a cation exchanger in Mg form so that dissol-
The resin is then

regenerated e.g. by treatment with 30-300 mole % (based on Ca exchanged) of Mg salt.

Also new is an appts. consisting of an exchange container (c) for the water and $\geqslant$ 1 regeneration container placed after (c). (c) may be a fixed-bed filter (semi-continuous or discontinuous operation) or a fluidised-bed filter (for fully continuous operation).

Mg is essential for human nutrition and can be introduced into drinking or industrial water. Conventional polystyrene sulphonic acid exchangers and existing equipment are used. 3.1.78 as 800516 (12pp1251)

STRA- ★ D15 52749B/29 ★DT 2800-556

Sewage venting assembly - with ball valve for large vent and cylinder actuated small vent for gas bleed

FA STRATE W 07.01.78-DT-800556

Q66 (12.07.79) F16k-24

A vent valve for the venting and ventilation of sewage pipe systems with a large vent opening, consists of a large-diameter tube with an O-ring seat for a ball valve at the bottom. A small vent opening is fitted with a guide rod for a float cylinder which can close the small opening by a conical seat. The O-ring seat for the ball lies below the level at which the cylinder begins to close the small vent.

This bleeds off any gas accumulation from dissolved gases which prevent the automatic opening of the large vent in conventional appliances. 7.1.78 as 800556 (17pp)

KUCK/ ★ D15 52760B/29 ★DT 2800-612

Sea water desalination - based on evaporation and condensation coupled by heat pump

KUCKENS A 07.01.78-DT-800612

(12.07.79) C02b-01/06

In a sea water desalination system the condenser of a heat pump is used to heat the sea water and to initiate its evaporation. The air space of this first container is connected to a second container in which the evaporator of the heat pump is located. The cooling effect creates a continuous supply of fresh water condensates and the heat pump feeds the heat of condensation to the first container.

The use of a heat pump accelerates the condensation effect and prevents the loss of any energy. Fresh water can be produced cheaply enough for use in agriculture and industry. 7.1.78 as 800612 (6pp39)

ZENI- ★ D15 52761B/29 ★DT 2800-628

Sand trap clearing system - with submersible pump suspended from moving carriage on gantry

ZENITH-MASCH GMBH 07.01.78-DT-800628

(12.07.79) C02c-01/20

A clearing system for longitudinal sand traps in sewage and water treatment plant consists of a carriage which can be moved along a gantry structure over the length of the rectangular sand trap. The carriage is equipped with a vertical pipe on which a submersible pump is suspended to dip into the mixture of water, sand and sludge and to extract it into a gutter.

This is a simple arrangement with a minimum of capital costs. It saves the labour for manual cleaning operation. 7,1.78 as 800628 (9pp39)

LUDE/ ★ D15 52771B/29 ★DT 2800-689

Force-fed dewatering plant for sewage farm sludge - increases solid content of prod. and yields clear filtrate

LUDECKE A 09.01.78-DT-800689

(12.07.79) C02c-03

Force feed dewatering plant for excess and/or raw sludge, with forced mixing of the sludge or their mixtures, brings about a slow flow through a trough having a rectangular, circular or triangular cross-section around the wall of which a commercially obtainable filter felt is stretched, and extends over an appropriate length of the trough.

The plant reduces considerably the costs of installation and increases the ratio of solid matter in the delivered sludge, the vol. of which may be reduced from 100% to 25%, with solid matter raised from2 to 8%.

The trough is formed by a rustless net with a mesh of about 6/6cm. The filter fleece lining it is fastened so as to be easily replaceable. The mixing and the slow flow are effected by a motor driven worm. The dewatered but still pumpable sludge is delivered for the next operation at the outlet and the clear filtrate is either recycled or put to waste. 9.1.78 as 800689 (7pp1045)

FARH ★ D15 52792B/29 ★DT 2801-034
Flocculating agent for water treatment - comprises granulated mixt. of ferric sulphate and lime
HOECHST AG 11.01.78-DT-801034
(12.07.79) C02c-05/02

Floculating agent for purifying waste water (esp. domestic) is a granulated mixt. of $Fe_2(SO_4)_3$; (I) and lime (II). Pref. the (II):(I) wt. ratio is 1:2-10, esp. 1:4-5 and (II) may be quicklime, slaked lime or $Ca(OH)_2$ remaining after generation of gas from Ca carbide.

Pref. the granules have dia. of <10mm, 1-3mm and are made by spraying a (I)-(II) mixt with 50-350 (100-150)ml water per kg in a conventional granulator. They are then classified and oversize particles recycled.

Used for removal of colloidal or dissolved organic matter and dissolved phosphates. The granules are easy to distribute in the water do not change it pH and their effect does not depend on pH. 11.1.78 as 801034 (9pp1251)

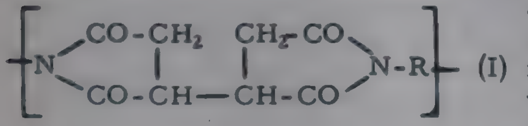
SACC/ ★ D15 52804B/29 ★DT 2823-920
Biological sewage treatment - by floating drums carrying biogenic mass and revolved by sewage flow in series of cells
SACCO E 06.01.78-IT-019058
A88 (12.07.79) C02c-01/04

A system for the biological purification of municipal sewage and other effluents which respond to a biological treatment, passes the fluid through a series of consecutive chambers in a channel. Each chamber houses, protected against ultraviolet radiation, a floating drum with ribs to support a mat of biogenic matter. The fluid flow rate of 0.1m/sec. keeps the drums revolving without any external energy. The pref. means of supporting the biogenic mass on the drums are perforated and solid ribs, tubes or neeting, made of PVC and nylon, lacquer-coated metal, stainless steel or aluminium.

The system requires much less floor space and maintenance labour than trickle filter systems, and needs less power and moving parts than the activated sludge system. There is no upper limit to its capacity. 31.5.78 as 823920 (22pp39)

NITL ★ D15 52816B/29 ★DT 2850-043
Selective permeability membranes - made by coagulating a heat treated film of a polyimide dope contg. an inorganic salt
NITTO ELECTRIC IND KK 10.01.78-JA-U01730
A88 J01 (A26) (12.07.79) B01d-13/04

Self supporting selective permeability membranes are made by first forming a dope contg. a polyimide polymer with repeating units in which R is a divalent organic gp; an inorganic salt; and a solvent capable for forming a homogeneous soln. with the other components. The dope is applied to a substrate to form a coating and the coated substrate is then heated to a temp. which does not cause the organic solvent in the dope to boil. The substrate is then coagulated in a coagulation medium.


(I)

The membranes have improved resistance to heat, alkalis, acids and organic solvents than prior art membranes. They are useful for reverse osmosis and ultrafiltration, e.g. to separate solvents from solns., emulsions and suspensions such as in the purification of effluent water and the desalination of sea water. 17.11.78 as 850043 (36pp513)

SUMO ★ D15 52848B/29 ★DT 2856-136
Semipermeable membranes prodn. from acrylonitrile polymers - by sulphonating, useful for ultrafiltration and reverse osmosis (NL 2.7.79)
SUMITOMO CHEMICAL KK 21.01.78-JA-005419 (28.12.77-JA-159377)
A88 J01 (12.07.79) B01d-13/04 C08i-07/14

Prepn. of semipermeable membranes comprises sulphonating a porous membrane of acrylonitrile polymer (A) contg. ≥40mole % acrylonitrile (I) units.

Pref. the membrane has 'bubble point' ≥1 kg/cm² and water permeability of 0.01-1000 LMH at 10kg/cm² pressure, and may have been plasma-treated at the surfac using a glow discharge of 0.5-50V at 0.01-10 torr). 'bubble pt' is the air pressure at which air is forced the membrane pores, the membrane having been thr wetted with water. Pref. (I) is 70-95 mole % of (A) a sulphonation is with SO_3 (opt. diluted with air N_2 or H 1 sec. to 60min.

New heterogeneous membranes have (a) a pore-fr surface ≥1 μm thick; (b) pores increasing in size tov the reverse side of the membrane, and (c) is crosslii to a depth of ≥0.1 μ from the surface.

Membranes are used for reverse osmosis and ultr filtration sepn. and concn. processes, esp. desalinat of seawater; treatment of waste water and conc. of fr juices.

Superior water permability for other substances (e when sulphonation and plasma treatment are combine They have superior mechanical, chemical and therma stability compared with cellulose acetate membranes. 27.12.78 as 856136 (17pp1251)

TOYM ★ D15 52906B/29 ★DT 290
Liquid-liquid separation device - with hollow fibre ribbons wou zigzag spirals on cylindrical core
TOYO BOSEKI KK 10.01.78-JA-U01775
J01 P34 (12.07.79) A23l-02/08 A61m-01/03 B01d-13 C02b-

A spool of hollow fibres with a selective permeability use in the liquid/liquid separation consists of a core o which bundles of fibres are wound in ribbons with para hollow fibres. The groups of fibres do not overlap at t ends of the core where they are held by straps or by e discs but cross over each other further inwards. The fibres ends are finally exposed by cutting of the core ends.

This results in a uniform and high packing density the fibres. The lesser trend towards a polarisation of concentration increases the separation efficiency. 9.1 as 900603 (22pp39)

CARO D15 35108B/18 =EP —
Hard granular activated carbon for water treatment - is prepd. brown coal by treatment with conc. acid, etc.
CARBORUNDUM CO 30.12.77-US-865801
*E36 J01 (11.07.79) *US4149-995 C01b-31/14*
D/S: E(BE, DT, FR, IT, NL).

Granular activated carbon is produced by (a) forming granules from brown coal; (b) treating the granules w 1-10 wt.% of a conc. inorganic acid; (c) comminuting fine powder with a moisture content of 10-30 wt.%, inc ding acid; (d) compressing the powder to form shapes comminuting the shapes to form granules; (f) devolati ing the granules without charring by heating at a temp. above the charring temp. in an O_2-free atmos; and (g) activating the product by heating at a temp. above the devolatilising temp. in an atmos. contg. a gaseous acti ing agent (e.g. steam or CO_2).

The product is esp. useful as an adsorbent for wate and waste-water treatment.

The process gives hard, dense granules with an abr sion no. of ≥70 from low-cost brown coal without the u of carbonaceous binders.

1.12.78 as 101518.(49pp367).

(E) ISR: US1551075; GB195390; US1819165; GB43446
DS733410; US2040931; US3864277.
1 Journal Reference.

BOEF D15 12099B/07 =EP —2
Biological sugar refinery effluent treatment - with aeration ro spraying against plastic web ending in biogenic culture box
SUDDEUT ZUCKER AG 23.12.77-DT-757859
*A97 (D17) (11.07.79) *DS2757-859 C02c-01/04 C02c-05/10*
D/S: E(BE, CH, DT, FR, NL, SW).

A biological purification process for heavily laden effluents, e.g. in the manufacture of sugar, uses aerati rotors which float on the surface of the lagoons. The frame for each aerator extends from above a rotor at a acute angle to a box, suitable for the growth of biogenic matter.

is creates more favourable conditions for bacteria
nat of biogenic matter which maintains an automatic-
djusted population. The result is a better purificat-
fect in presence of fluctuations in quantity and
osition of the effluents which are common in the
industry.
78 as 101600 (13pp39).
R: GB-633064; DS-481126; US3402125; DT2033669.

D15 45853B/25 =EP ---2-704
removal from waters - by suction and filling in floating
ner together with polymeric flocculant, e.g. polyacrylamide,
thylene oxide etc.
SSELLA AG (CASS) 10.12.77-DT-755125
*7 +Q42 (11.07.79) *DT2755-125 +C02b-01/20 C02c-03*
2f-07/04
E(BE, DT, FR, GB, IT, NL).

is removed from water by (i) upward suction and
g the absorbed mud-water suspension together with a
ulant into a floating container; (ii) interrupting fill-
s soon as the container is full and (iii) removing the
rnatant water layer after settling of the mud. Filling
epeated with flocculant addn., settling and supernatant
r layer removal, until the container is filled with

.78 as 101609 (20pp200).
SR: US3544456; DT1955944; DT1918332; DS1208240;
384778.

A- D15 49247B/27 =EP ---2-727
inuous effluent filtration - by passing effluent alternately
/wise to flow of descending filter material
T-GES UMWELT-TECH 22.12.77-DT-757209
*01 (11.07.79) *DT2757-209 C02c-01/18 +B01d-33*
: E(BE, FR, GB, IT, NL, SW).

uents are filtered continuously by passing them through
rtical cylinder in which a bed of granular filter mat-
l descends. Starting from the bottom the effluents are
sed across the bed at right angles to its direction of
, first from the outside inwards and at a higher level
n the inside outwards.
This prevents channelling which is often troublesome
onventional counterflow systems. The filtering effici-
y and throughout is much improved with very simple
ts.
12.78 as 101661 (16pp39).
ISR: DT2126631; US3150063; US492716; FR1438301.

D15 49277B/27 =EP ---2-769
vated sludge treatment of waste water - with mechanical
ruction of microorganisms forming bulking sludge
LINGENS & SOHNE (LINM) 23.12.77-DT-757742
*(11.07.79) *DT2757-742 C02c-01/06*
S: E(BE, CH, DT, FR, IT, NL).

the biological purificn. of waste water, microorganisms
oducing undesirable bulking sludge (low-solids
ivated sludge with poor settling properties) are
stroyed mechanically, pref. by subjecting the bulking
dge to high accelerative forces (esp. in a centrifuge).
The process is simple, reliable and avoids the use of
ctericidal chemicals (e.g. Cl_2 or H_2O_2).
.12.78. as 101742 (12pp367).
) ISR: US 2227851; DT 2447501; DT 2652229;
3356609; US 3673083.

RH D15 35443B/19 =EP ---2-858
erloaded clarifying plant relief - by passing all or part through
pended filter cloth elements
HOECHST AG 16.12.77-DT-756171
*(11.07.79) *DS2756-171 C02c-01 +B01d-23/04*
S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW).

wage treatment plant in which one stage or more is
erloaded in continuous operation is equipped with an
ditional filtration stage for all or a sidestream of the
wage. Suspended woven filter elements form a filter
ke of the solids which also separates colloidal and

filtrate rejoins the main stream and is treated in the usual way.

This saves the expenses for a complete reconstruction of the treatment plant and requires a minimum of extra floor space.

13.12.78 as 200364.(14pp39).
(G) ISR: DT1658094; DT2621698; DT2424563; FR1564226

GASC ★ D15 52988B/29 ★EP ---2-880
Regenerating wash liquors used to remove hydrogen sulphide from gases - by removing solubilised sulphur cpds. with sulphuric acid without producing sulphur di:oxide (J5 23.5.79)
BRITISH GAS CORP 13.10.77-GB-042647
E36 H05 J01 (11.07.79) B01d-53/34 C02c-05/02 C10k-01/08
D/S: E(BE, CH, DT, FR, GB, NL).

Soluble thiosulphates present in aq. redox systems, comprising at least one salt of an anthraquinone disulphonic acid and $\geqslant 1$ water soluble cpd. of a metal having $\geqslant 2$ oxidation states, are converted to sulphates by introducing oleum or H_2SO_4 into the lower half of a reaction vessel contg. the redox soln. The H_2SO_4 has a concn. of 10-98% w/w H_2SO_4 and the amt. used gives an H_2SO_4 : thiosulphate gram m.wt. ratio of 1 : 2 to 1 : 3. The process is carried out at > 70 (pref. > 90)°C.

For regenerating, by removing solubilised S cpds, wash liquors used in removing H_2S from gases and hydrocarbon liquids (partic. liquors used in the Stretford process (GB 948270)).

The thiosulphates are converted to sulphates (which are pptd.) without the prodn. of SO_2 (the H_2SO_4 being introduced at the bottom of the vessel means that any SO_2 produced reacts with more thiosulphate to product sulphate), and without destroying the organic constituents.
9.10.78. as 300471 (20pp959).
(E) ISR: DT 2717140; US 4083945; US 4098886; 2 Journal References.

STER D15 15832B/08 =EP ---2-928
Removing unwanted slurried solids from reactor - oxidising sludge by pressurised wet process using heat exchanger
STERLING DRUG INC 27.12.77-US-864497
*+Q78 (11.07.79) *US4139-461 +C02c-05/04 F28g-09*
D/S: E(BE, DT, FR, GB, NL).

Unwanted slurried solids accumulated in a wet air oxidn. system for conditioning or oxidizing sludge are discharged using a flush water stream. The system includes a pressurized sludge flow through the cold side of a heat exchanger to the inlet of a reactor. The reactor effluent flows from the outlet of the reactor through the hot side of the heat exchanger to an adjustable pressure control valve. A normally closed, valved line communicates between the reactor bottom to a point upstream from the pressure control valve but downstream from the heat exchanger. After water has flowed between the heat exchanger and control valve the line valve is opened and the setting on the control valve is reduced to below the pressure in the reactor.

The accumulated solids can be periodically removed with only a temporary suspension of feed to the plant and without draining the entire liquid portion without having to cool the reactor contents.
19.12.78. as 300866.7 (11pp1044).
(E) ISR: DT 2320684; US 3397110; FR 2322349.

BENC ★ D15 53048B/29 ★EP ---3-013
Municipal and industrial sludge thickening - by space filter lowered in thickener with fluid extraction by pump
BENCKISER-KNAPSACK 04.01.78-DT-800278
(11.07.79) B01d-21 B01d-29/10 C02c-03
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Sludge, pref. flocculated, from the municipal sewage or industrial waste treatment is thickened by passing the fluid from the outside inwards in separate filter spaces. The space filters of bag, cylinder, truncated cone or pyramid shape are reinforced by supporting elements and can be raised and lowered inside the thickened. The clear

Such a plant saves a large number of filter units and shortens the time required for the thickening of large flow rates of sludge.

4.1.79. as 100022 (12pp39).
(G) ISR:- US 2447286; DT 2331128; DT 1912133; DS 1658055; US 3635343; GB 1270803.

TECH- ★ D15 53075B/29 ★FR 2405-904
Recovering fresh water using solar energy - by collecting water condensed on lower surface of transparent screen forming closed space over ground exposed to sun
TECHNIP 13.10.77-FR-030856
(15.06.79) C02b-01/06

A method of recovering fresh water by solar energy over an area exposed to the sun consists of placing over the area a screen which is impermeable to gaseous fluids but permeable to heat. The screen forms a closed space and its exposure to solar heat causes evapn. of the humidity present in the space. The humidity comes into contact with the lower surface of the screen, where it condenses and is collected by streaming under gravity, giving fresh water.

Used esp. for obtaining fresh water from salt water or brackish water contained in desert and sandy ground. 13.10.77 as 030856 (12pp1192)

DIFF- D15 30181S/17 =GB 1331-308
Floculating impure water by electrode - generated metal ions
SOC ETUD DIFF BREVE (DIF -) 28.10.69-FR-036971
*J03 (04.07.79) *BE-758-100 C02b-01/14 +C02b-03/10*

An aq. liq. contg. impurities is purified by passing the liq. between metal electrodes, to which an electric current is continuously applied to effect uniformly scattered emission of metal ions into the liq. The metal ions and hydroxyl ions of the aq. liq. cause the formation of fine floceulates in the liq.

The aq. liq. is then continuously circulated through a filter, comprising a preformed filtering mass within which the fine floceulates are deposited, retained and build up to form a porous filter mass. The filter is washed when the pressure drop for the aq. liq. passing through the filtering mass reaches a predetermined threshold value. The current applied to the electrodes is sufficient to provide metal ion emission at a rate such that free metal ions pass through the filtering mass with the aq. liq. to provide sterilisation of the filtrate.

Esp. used for purifying swimming pool water. 28.10.70 as 051321(5pp931).

BABS- D15 61461X/32 =GB 1548-421
Processing cattle excrement to recover fibres - for use as bedding by pressing between foraminous rolls
BABSON BROS CO (NIKL) 09.05.75-US-576188
*+P11 P14 P41 P71 (18.07.79) *US3971-720 +C05f-03*

Appts. for sepg. undigested fibre, mostly short capillary tube bundles, from ruminant animal faeces, comprises a slurry tank with agitator, and a separator with a rigid foraminous rotatable drum at the base of a hopper. A softer squeeze roller is on the drum downstream of the vertical, and a hopper bottom seal bears on drum and roller to close the hopper.

The fibre tubes are squeezed to remove liq. and a blade after the roller scrapes solid from the drum. The filter mass is passed to a similar second stage separator. The roller pref. has a soft elastomer surface with spiral grooves, and the filtrate is collected for use as liq. fertiliser. 14.4.76 as 015281(16pp1358).

BABS- D15 61461X/32 =GB 1548-422
Processing cattle excrement to recover fibres - for use as bedding by pressing between foraminous rolls
BABSON BROS CO 09.05.75-US-576188
*+P11 P14 P41 P71 (18.07.79) *US3971-720 C05f-03/06 C05f-05*

Appts. for sepg. undigested fibre, mostly short capillary tube bundles, from animal faeces comprises a slurry tank with agitator, and a separator with a horizontal foraminous rotatable drum at the base of a hopper, and a squeeze roller bearing on the drum downstream of the vertical with heavy pressure to compress and dewater the fibre.

Filtrate is collected for use as liq. fertiliser or can be diverted back to the tank. Filter mass is removed by a scraper blade after the roller, and slurry is pumpe
tank to hopper. The roller pref. has a soft elaston
surface with spiral grooves. 14.4.76 as 17981/78
1548421(16pp1358).

BABS- D15 61461X/32 =GB
Processing cattle excrement to recover fibres - for use as be
pressing between foraminous rolls
BABSON BROS CO 09.05.75-US-576188
*+P11 P14 P41 P71 (18.07.79) *US3971-720 C05f-03*

Appts. for sepg. undigested fibre, mostly short cap
tube bundles, from animal faeces comprises a slur
with an agitator, and a separator with an airtight ho
with lower inlet for pumped slurry and a horizontal
minous rotatable drum at the hopper bottom and a s
roller urged against the drum downstream of the ve
with heavy pressure to dewater fibre.

A scraper blade removes the filtered mass from
drum after the roller. The roller pref. has a soft e
mer surface with spiral grooves, and there is a sec
foraminous drum and squeeze roller receiving mate
removed by the blade from the first drum. 14.4.76
17982/78 Div. ex. 1548421(15pp1358).

DEGM D15 85316X/46 =GB 1
Water purification by coagulation or flocculation - using i
soln. of hydroxide aluminium polymer prepd. from aluminiu
DEGREMONT SA 25.04.75-FR-012975
*E33 (18.07.79) *DT2617-282 C01f-07 C02b-01/20*

A soln. of a hydroxy-metallic polymer contg. a cati
general formula $Alp(OH)q^{rt}$ in which $r = 3p-q$ is pre
the slow addition of a soln. of an aluminium salt to a
li(ne earth) metal hydroxide with vigorous agitation
ambient temp. Amt. added is such that the soln. is
tained in a molar ratio OH/Al of 2.2-2.7. Aluminiu
in initial soln. has concn $\leqslant$ 2.5 moles/l. Final soln
concn. of aluminium of 0.025-0.40 moles/l.

Polymer is used as a means of coagulation and flo
lation for purifying water, esp. water clarified for h
consumption or urban or industrial waste water. 23.
as 016602(5pp931).

NITA D15 72696Y/41 #GB 15
Treating aq. effluents contg. organic impurities - ammoniu
sulphur cpds., to recover aq. ammonium sulphate soln.
NITTETU CHEM ENG LT (NITT-) 31.03.76-DT-613796 (30.03.
012850)
*C04 E35 +Q73 (18.07.79) *DT2613-796 C01b-17/50 C01c*
+F23g-07

In the disposal of an organic waste water contg. NH_4
sulphur components, (a) droplets of the waste water
a particle diameter of < 200 µ are sprayed into a str
of combustion gas within a furnace; (b) the introduced
water is heated at 750-950°C under conditions to give
average retention time of the waste water within the
ace of 0.3-10 secs. and a residual O_2 concn. in the ga
discharged from the furnace of 1-10 vol%, to burn ou
organic substances present in the waste water and si
neously convert the NH_4^+ and sulphur components pre
into NH_3 and sulphur oxides respectively; and (c) a ga
contg. NH_3 and sulphur oxides is withdrawn from the
ace.

The gas withdrawn from the furnace may further b
contacted with an aq. soln. to absorb and recover NH
sulphur oxides present in the gas. 30.3.76 as 012850

MCMA/ ★ D15 53110B/29 ★GB 15
Feed-water deaerator for steam generators - passes dea
water to a reservoir and then a pump, so that the water is ret
to the generator under pressure
MCMASTER A 05.06.76-GB-023566
J01 Q72 (18.07.79) B01d-19 F22d-01/30

A feed-water deaerator has an upper chamber which
heats the water before it passes into a lower deaerati
chamber, steam from the generator is fed into the lo
chamber to heat the water and cause an air/stream
mixt. to rise into the upper chamber, where it passe
through tubes and pre-heats the water before passing
through an air-release valve. The deaerated feed wa
is passed from the lower chamber to a reservoir and
to a pump which feeds the water under pressure to the

e device removes air, oxygen and other soluble gases
he water to prevent corrosion in the generator. The
is suitable for compact generators that use a regen
e feed system. Prior art problems of feeding the
from the deaerator to the generator are avoided.
6 as 023566(5pp976).

D15 90606X/49 =GB 1548-716
unit for degassing water - using peripheral slits between
nt dish shaped annular plates as variable nozzle orifices
NINK MACH STORK BV 06.06.75-NL-006770
*2 (18.07.79) *BE-842-015 B01d-19 B05b-01/30*
fuser for finely dividing a liq, partic water for degas
has two annular plates, one or both resilient, engag
ach other peripherally when no liq is passed through
eld apart by spacers around the inner periphery. Th
ers have a radial passage connecting a pressurised liq.
y duct to the annular cavity, and the plates are clamp
gether against the spring force of the resilient plate.
ne diffuser has a numberof such two-plate units, held
her by two end rings connected by tension rods. The
s of each pair pref. have outwardly extending flanges
rging in diffuser-like manner. The arrangement auto-
cally adapts the available distributing passage to the
able amt of liq. 27.5.76 as 022118(5pp1358).

D15 41791X/22 #GB 1548-766
with vertically spaced horizontal filter elements - whose cakes
ried sequentially with compressed air
REX INC (ARVA/) 06.03.74-US-448493 (13.04.76-GB-015126)
*01 (18.07.79) *US3957-636 B01d-37 +B01d-29/02*
ltering liq., it is passed into a chamber and through a
zontal filter cake carrying element with downstream
ate outlet. Chamber feed is interrupted in response to
mulation of a set amt of material on the cake, then gas
applied to pressure drain liq through cake and filter
liq level in the chamber is below the cake, when the
supply is continued to dry the cake for removal.
new cake is pref. formed by adding cake material to
liq and circulating through the element. The chamber
. has a number of vertically spaced elements, and gas
sage through the elements is interrupted by closing the
ate outlet. 13.4.76 as 015126(14pp1358).

D15 41791X/22 #GB 1548-767
r with vertically spaced horizontal filter elements - whose cakes
dried sequentially with compressed air
OREX INC (ARVA/) 06.03.74-US-448493 (13.04.76-GB-015126)
*01 (18.07.79) *US3957-636 B01d-29/38 B01d-37*
ration appts. comprises a filter element and a cleaning
sh across the filter surface and relatively rotatable.
brush is curvilinear when viewed perpendicular to the
face and is configured so that solids are moved outwar
across the surface and brush for discharge.
The brush inner end is pref. offset from the axis of rela
ve rotation and brush shape is such that angles between
gents to different points along the brush and radii through
se points and axis of rotation increase progressively
ards the outer end. The brush is pref. freely rotatable
ative to the element and engages an abutment to limit
ation in unison with the element. 13.4.76 as 34972/78
. ex. 1548766(10pp1358).

TR D15 86405Y/48 #GB 1548-938
moval of oil from water using fibrous layers - in a two stage
ocess using hydrophilic organic polymer fibres
MITSUBISHI RAYON KK 28.06.76-US-700075 (23.06.76-GB-
026054)
*A88 J01 (18.07.79) *US4059-511 +B01d-21/10*
arification of waste water contg. oily materials and
lids dispersion in it, comprises (a) passing the water
rough fibrous strata arranged along a path of the water
that the oily materials are coalesced and catch and
llect the solids; (b) introducing the water into a space:-
ich the coalesced particles float and form a separate
yer on the upper surface of the waste water; (c)discharg-
g the oily materials together with the solids from each
the separate layers and (d) recovering remaining clari-
ed water from the space.
Each of the strata of fibres is composed of a mass of
mass of fibre is compressed so that the closer the location of the fibrous strature is to the supply source of the waste water, the greater are the gaps, on average, formed between the fibres, in the stratum.

Method can be carried out continuously over a long period and the strata do not absorb the oily material. 23.6.76 as 026054(13pp393).

SMHL ★ D15 53125B/29 ★GB 2011-795
Aeration of sewage sludge in closed loop channel - having air diffusing nozzles situated between inclined baffles to induce circulatory flow
SIMON HARTLEY LTD 14.12.78-GB-048572 (06.01.78-GB-000563)
(18.07.79) B01f-03/04 B01f-05/10

Appts. for the aeration of a liquid comprises a channel in the form of a closed loop having a zone which includes air diffusers. An upwardly directed current is established in the liquid in the region of the air diffusers and baffles direct the current to cause circulation of liquid around the channel when the air diffusers are operative.

The baffles may comprise of plates disposed in vertical planes or plates extending across the width of the channel and which are upwardly inclined in the direction of liquid flow.

Used for aeration of sewage and industrial effluent in activated sludge treatment process. The air diffusing nozzles induce circulation of liquid around the closed loop. The liquid is agitated and mixed and settling out of suspended solids are prevented. 14.12.78 as 048572(6pp1044)

KUST ★ D15 53126B/29 ★GB 2011-796
Self-cleaning liq. filter system - has tubular filter element with groove in entry surface for flow of liq., esp. for purifying textile processing waste water
KUSTERS E 09.11.78-DT-848631 (05.01.78-DT-800425)
F07 J01 (18.07.79) B01d-13 B01d-29/34 B01d-35/22

The system comprises a tubular filter element through which liq. to be filtered passes radially. The entry surface through which the liq. enters the filter element is formed with one or more grooves defining flow path(s) extending along the entry surface for liq. to be filtered.

Used for purifying textile processing waste water to eliminate chemicals, e.g. pastes having molecules of large size. Liq. to be filtered flows continuously along the groove(s) so that particles retained on the entry surface after sepn. from the filtrate are immediately rinsed away. The groove(s) provide an increased surface area over the entry surface of the filter element. 15.12.78 as 048783(10pp67).

SMHL ★ D15 53138B/29 ★GB 2011-877
Effluent treatment in aeration vessel and inclined plate separator - where incoming feed displaces liquid through separator and suspended solids are returned to vessel
SIMON HARTLEY LTD 15.11.78-GB-044672 (10.01.78-GB-000962)
(18.07.79) C02c-01/06

Appts. for treatment of effluent by activated sludge treatment process comprises an aeration vessel and an inclined plate separator. Incoming feed to the vessel displaces liquid through the separator and suspended solids are deposited for entrainment in a liquid current for return to the aeration vessel. The liquid current is caused by the effect of a rotary surface aerator in the vessel.

The necessity for a large settling tank, i.e. of comparable size to the aeration tank, is eliminated. There is no need for pumps to return sludge from the settling tank to the aeration tank. 15.11.78 as 044672(6pp1044).

MALG- ★ D15 53157B/29 ★GB 2011-975
Subterranean sewage disposal appts. formed in situ - from grooved base plate, slotted wall portions, baffle partitions and cover
MALGLEN CONCRETE TA 21.12.78-GB-049576 (21.12.77-GB-053618)
Q42 (18.07.79) E03f-05/10

A sewage disposal appts. comprises a horizontal bottom plate and an upright peripheral wall in liquid-tight relation with the plate to form an open-topped septic tank. A removable cover is seated on the upright wall and an upright baffle partitions the tank into first end second compartment.

The baffle extends from the plate to a position short of the top of the wall. An inlet and outlet are provided for the first and second compartment respectively. The up-

-s which are slotted together.

The appts. can be constructed in situ. The septic tank inlet has a inspection chamber. The components of the tank can be made in a factory and taken to a prepd site where the appts. can be assembled relatively fast. 21.12.78 as 049576(6pp1044).

NITR- ★ D15 B/29 ★HU T016-668

Prepn. of high-purity, hydroxyl-ion-saturated ion exchangers - by treating the chloride form with alkali bicarbonate and then with alkali hydroxide

NITROKEMIAI IPARTEL 15.07.76-HU-NI0198

J01 (28.06.79) B01j-01/04 C02b-01/50

TELN- ★ D15 53272B/29 ★J5 4070-637

Water treatment with humic acid-type heavy metal ion exchanger - using at least two towers packed with the ion exchanger

TELNITE KK 16.11.77-JA-137577

(06.06.79) C02b-01/16 C02c-05/08

In treating heavy metals-contg. waste water with humic acid-type ion exchanger, improvement comprises providing $\geqslant 2$ adsorbing towers packed with ion exchanger, instantaneously treating the ion exchanger in the initial adsorbing tower with acid when it is saturated with the heavy metal ions to convert by elution the ion exchanger to H-type then passing the water through the sec. adsorbing towe r until the ion exchanger contained is satd. with it so that the water is passed finally through the initial tower (the water having finally passed through it) is automatically converted to salt-type with alkaline earth metal ion or with alkali metal ion contained in the water, followed by repeating in succession the above procedures, thereby it becomes possible to affect the removal of the heavy metal ions from the water only by one step regeneration with acid without lowering pH value. 16.11.77 as 137577 (4pp34)

AIHA/ ★ D15 53273B/29 ★J5 4070-638

Sterilisation of water, e.g. in swimming pools - comprises contacting it with silver and e.g. carbon or activated charcoal, with improved dissolution of silver ions

AIHARA M 15.11.77-JA-137023

(06.06.79) C02b-03/06

Water is simply and effectively sterilised by contacting it with Ag and an electro-conductive substance having less ionisation tendency than Ag, e.g. carbon and activated charcoal, etc., existed in contact state each other.

Dissolution of Ag ions is accelerated and oligodynamic action of Ag is effectively improved by contacting Ag, in water to be sterilized, with carbon or activated charcoal. This process is suitable for sterilisation of a large amt. of water, e.g. in swimming pools, etc. due to the fact that Ag is capable of effectively sterilising water even if the amt. of water is 10^7 times that of Ag.

The process is very safe, works well and is suitable for domestic use and in obtaining drinking water from natural water in emergencies. 15.11.77 as 137023 (6pp34)

TOKE ★ D15 53274B/29 ★J5 4070-641

Decolourising water obtd. during night soil treatment - includes control of nitrite concn. to avoid excess ozone injection

TOKYO SHIBAURA ELEC LTD 16.11.77-JA-136593

(06.06.79) C02c-05/04

The decolourisation of water obtd. by treating night soil with activated sludge using ozone, opt. after removing floating materials by addition of a coagulant, the improvement comprises adjusting the aeration rate in biological aeration vessel, the BOD load or the recirculating sludge amt. so that NO^-_2 content of the treated water does not become excess by over-aeration.

This enables deodourisation to be carried out very effectively under stable, continuous automated operation without injection of excess ozone. 16.11.77 as 136593 (3pp34)

HITK ★ D15 53275B/29 ★J5 4070-642

Biological denitrification of waste water - using nitrification, denitrification, pre settling and settling vessels, with recirculation of floating sludge from pre-settling vessel

HITACHI METAL KK 16.11.77-JA-136646

(06.06.79) C02c-01/02

In biological denitrification of NH_4-N-contg. polluted water, e.g. sewage etc., by introducing it into a nitrification vessel where NH_4-N is oxidised to NO_2-N or NO_3-N by tion of nitrifying bacteria, then introducing it into a fication vessel where NO_2-N or NO_3-N is converted by the action of denitrifying bacteria, further introdu it into a settling vessel to separate it into concd. act sludge and denitrified water, the improvement compr providing a preliminary settling vessel between the d fication vessel and the settling vessel, and recirculat floating sludge in the preliminary settling vessel to th rification vessel opt. together with the denitrified wa so that the nitrification treatment is carried out at a activated sludge concn. in the nitrification vessel.

Denitrification is effected with high efficiency. 16. as 136646 (3pp34)

KURB ★ D15 53276B/29 ★J5 407

Removal of heavy metal ions from effluents - using oxidising ferrous salt, pptn. of iron salt by alkali addn. and sepn.

KURABO IND KK 15.11.77-JA-137485

(06.06.79) C02c-05/04

Removal of heavy metal ions from effluents contg. he metal components and oxidizable components, e.g. C components and cyanide etc. involves adding oxidizing agent, e.g. hypochlorite etc., the amt. of which is in ess to that of the oxidizable components, adding ferro salt, a portion of which is converted by oxidn. to ferr salt by action of a remaining portion of oxidizing agen and then forming insoluble Fe^{2+}/Fe^{3+} salt by adding al followed by sepn. by pptn.

Improvement comprises blending a portion of liquo taken-off from the oxidizing step with a portion of aq. rous salt soln. in pre-determined amt., and controlli the supply rate of the oxidizing agent using the oxidn. - potential of the blended liquor as control information. thus becomes possible to carry-out highly accurate au mated control. 15.11.77 as 137485 (5pp34)

HIEJ ★ D15 53277B/29 ★J5 4070

Purifying zinc-contg. waste water - by successive addn aluminium salt and alkali metal carbonate

HITACHI PLANT ENG CONST 16.11.77-JA-138361

E33 M25 (06.06.79) C02c-05/02

Zn is accurately and effectively removed by pptn. from waste water by (a) adding Al salt, e.g. $Al_2(SO_4)_3$ follow by agitation, and (b) adding alkali metal carbonate, e. Na_2CO_3 to adjust the pH to 8-9, esp. 8.6.

Use of the alkali metal carbonate facilitates pH adj ment. The Al salt is effectively co-precipitated with reaction prod. of alkali metal carbonate and Zn thereb coprecipitating effect is elevated. 16.11.77 as 138361 (2pp34)

HIEJ ★ D15 53278B/29 ★J5 4070-

Purifying oil-contg. waste water from steel mfr. - by adding min acid, heating, opt. blowing with compressed gas, adding calc hydroxide and leaving to stand

HITACHI PLANT ENG CONST 16.11.77-JA-138362

J01 M24 (06.06.79) C02c-05/02

Oily waste water contg. organic pollutants e.g. defattin effluent containing surfactant and inhibitor etc, dischar from steel-producing plant, is purified to a very high o removability by first adding mineral acid, e.g. H_2SO_4 e This is followed by heating to $> 70\,^\circ C$ opt. blowing with compressed gas to separate by flotation oil components, adding $Ca(OH)_2$ to the clarified water sepd. from the oil components to adjust its pH to 9-11 (9.5-10) and leaving stand to be sepd. into sludge and clarified water which then neutralised and outflowed. 16.11.77 as 138362 (2p

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MURA/ ★ D15 53299B/29 ★J5 4070-

Fertiliser prepn. from animal excrement, complex bacteria shells - by mixing the ingredients and drying to obtain fertiliser h in nitrogen, phosphorus and calcium

MURAKAMI E 16.11.77-JA-138346

C04 (07.06.79) C05d-03 C05f-03 C05f-11/08 C05g-01

Prepn. of fertiliser comprises mixing animal excremen complex bacteria such as Thomas 'bacteria' and a suitab amt. of shellfish shells, and then drying the mixt. to ob the matured fertiliser. Method gives a complex fertilis contg. a large amt. of nitrogen, phosphate and calcium. Shells are added not only to provide calcium component tiliser, but also for adjustment of the water content. e excrements used may be from cattle, pigs or poul- he amt. of shells added is 10-30% of the excrements. ossible to use calcium carbonate in place of the shelis 77 as 138346 (2pp108)

★ D15 53339B/29 ★J5 4071-076

ent of regeneration waste water contg. silicic acid - ged from ion exchange tower for purified water mfr., by isation to reduce sludge content

NKYO ENG KK 17.11.77-JA-137252

07.06.79) B01j-01/09 C02c-05/02

kaline waste water recovered from the regeneration ss for anion exchange resin tower is neutralised by eral acid, e.g. hydrochloric acid, sulphuric acid, o pH 6-7. The acid waste water recovered from the eration process for cation exchange resin tower is eutralised by a basic neutraliser, e.g. caustic soda, d lime, etc. to pH 7-8. Both neutralised waste wat- re mixed together and then subjected to sedimentat- eatment.

e method reduces the amt. of sludge composed prim- of silicic acid, and therefore can treat the regenera- vaste water very easily. 17.11.77 as 137252 (4pp117)

/ ★ D15 53341B/29 ★J5 4071-078

val of toxic cpds. and heavy metals from waste water - by ng through fossil shell particles then incinerating the shells

RAKAMI E 16.11.77-JA-138345

M11 (07.06.79) B01d-15 B01d-53/02 B01j-01 C02c-05/02

id or waste water contg. toxic heavy metals or sub- es, e.g. cyanogen, hexavalent chromium, etc. is d in a tank, and then is passed through treating tanks with fossilised sheel particles for filtration. The particles, which retain the toxic heavy metals and ances are finally incinerated.

ethod deals with toxic heavy metals and substances simple appts. and at lower cost. The appts. is pref. ded with a cyanogen detector. 16.11.77 as 138345 17)

★ D15 53345B/29 ★J5 4071-082

. for producing highly pure water - comprises a pre-treating and resin packed tower in a by/pass line between the latter

JITSU LTD 18.11.77-JA-137853

(07.06.79) B01j-01/04 C02b-01/40

opts. for producing highly pure water comprises a pre- ing unit, e.g. a pptn. tank, a sand filter, etc. an ion ange unit, and a final treating unit, e.g. a mixed bed xchange unit or a precision filter. A small resin pack- wer is provided by a by-passing line between the ion ange unit and the final treating unit, and the specific stance of the liq. leaving the small packed tower is me red to detect the purity of the liq. leaving the ion exch- unit and passing to the final treating unit.

hen the specific resistance measured is lower than a etermined level, the water line to the final treating is pref. cut off. 18.11.77 as 137853 (3pp47)

R ★ D15 53346B/29 ★J5 4071-083

xchange resin regeneration - reducing the leakage of anions, chlorine or sulphuric acid ions, into the treated water

APAN ORGANO KK 17.11.77-JA-137304

01 (07.06.79) B01j-01/09 C02b-01/40

e regeneration of both cationic and anionic exchange ns, used in the mixed bed desalination appts., both onic and anionic exchange resins are first sepd. from other such that the upper part is the anionic exchange n layer and the lower part is the cationic exchange n layer.

By using the effluent pipe for regenerator and washing er, positioned slightly below the dividing line between nic and cationic exchange resins, cationic exchange re- is first regenerated by an acid and then anionic exchan- resin is regenerated by an alkali. 17.11.77 as 137304 o117)

SATO/ ★ D15 53348B/29 ★J5 4071-086

Fresh water prodn. from sea water - in which water is pumped through a semipermeable membrane within a device attached to the bottom of a boat

SATO T 17.11.77-JA-138311

(07.06.79) B01d-13 C02b-01/82

Fresh water is produced from sea water by use of a semi-permeable membrane over a porous metal cap attached to a tube. The water is drawn through the memberane and the porous cap into the tube by a pump disposed within a sealed container (1) to which the tube is connected. The water is conveyed through a vertically extending tube into a vessel carried by a boat.

The container includes a number of such tubes and membrane covered porous caps and carries a weight for placing and maintaining buoyancy of the container-tube assembly in deep water.

There is no necessity for pressurising the sea water. 17.11.77 as 137311 (2pp47)

NITL ★ D15 53356B/29 ★J5 4071-099

Super-pure water prodn. - by evapn., ion exchange, etc., and filtration through copper or electrolytic copper powder or foil, etc., with many lattice defects

NITTO ELECTRIC IND KK 17.11.77-JA-138460

(07.06.79) C01b-05

The water first purified by evaporation, ion exchange, etc. until the concn. of impurities is lowered from the order of ppm to ppb; and then the water is brought into contact with a filter medium of copper material, electrolytic copper powder or foil, etc. having a large amt. of lattice defects, either by passage through the filter medium or by storage in a tank packed with the copper material.

This method not only gives super-pure water but also completely sterilises the water without damaging or fouling the water. The purified water is used in chemical industry, electronics industry, hospitals, etc. 17.11.77 as 138460 (2pp117)

KURM ★ D15 53434B/29 ★J5 4071-460

Dry treatment of sludge - by mixing with mineral acid and alkali in cruciform reactor, and removing evaporated water

KURIMOTO IRON WORKS KK 16.11.77-JA-137593

C04 Q76 (08.06.79) C02c-03 C05f-07 F26b-03/32

Method of treating sludge, e.g. organic sludges such as organic waste water sludge, sewage sludge, animal droppings sludge, etc. inorganic sludge such as lime industry waste water sludge, cement industry waste water sludge, fertiliser industry waste water sludge, etc. and pulp mill and fermentation waste water sludge, is described.

Sludge is mixed with a mineral acid, e.g. sulphuric acid, nitric acid, phosphoric acid, etc. and an alkali e.g. ammonia gas, liq. ammonia, NaOH, KOH, etc. in a cruciform reactor, and then water present in the sludge is evaporated by the heat generated by the reaction in the reactor and then the evaporated water is removed from the reactor.

Process can be used for the mfr. of a fertiliser and does not require any fuel or drier. 16.11.77 as 137593 (8pp117)

INOU- ★ D15 53494B/29 ★J5 4071-772

Recovering metal from waste soln. - by soaking diaphragm in soln., attaching electrodes to diaphragm and effecting cathodic deposition

INOUE KAGAKUSEIHIN 21.11.77-JA-138893

M28 (08.06.79) C02c-05/12

Process comprises (a) soaking diaphram in the soln. (b) attaching electrodes to both sides of the diaphram; and (c) depositing the dissolved metal on the cathode using an acid consisting of the anions of cpds. constituting the dissolved soln. or a mixed soln. of ≥1 metal salts constituting the acids and the dissolved soln. as the cathode.

Since the amt. of deposition can be controlled by the amt. of electricity, the compsn. of the soln. may be kept constant, by which a fine processing becomes possible. 21.11.77 as 138893 (4pp96)

KURK ★ D15 53495B/29 ★J5 4071-773
Treating large quantities of sludge - providing clean filter liq. and giving high dewatering efficiency
KURITA WATER IND KK 19.11.77-JA-138418
(08.06.79) B01j-01 C02c-03

Sludge-form liq. is introduced from supply inlets into a treatment chamber. Axially spaced fins are attached through spacers to a shaft which is driven from a motor, to form a filter element.

Adjacent filter elements are disposed to insert the fins of one element in clearances between the fins of other elements. Filter water is axially removed through holes of water-removable filter elements into a filter liq. chamber so that a sludge is transferred by water-unremovable filter elements to be discharged from a sludge outlet. The interval between the upper and lower filter elements is gradually reduced towards the sludge outlet. 19.11.77 as 138418 (5pp35)

SUGI/ ★ D15 53496B/29 ★J5 4071-774
Treating powdery industrial waste e.g. from metal plating - by mixing with slurry form waste, and granulating
SUGIURA M 19.11.77-JA-139130
J04 M11 (08.06.79) B01j-01 B01j-02

Process comprises mixing powdery waste with a muddy or slurry waste which is not yet solidified, and granulating. The granules form of the treated waste facilitates transportation and handling.

In an example, water, fine powder of $CaCO_3$, CaO, Al silicate powder and portland cement were added to sludge (water content 3.6%) formed by treating plating waste water. Solidifying treatment was conducted, immediately after the treatment. Coal ash contg. no moisture was then added to the mixt. 19.11.77 as 139130 (3pp96)

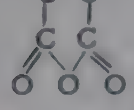
MITR ★ D15 53500B/29 ★J5 4071-779
Backwash type adsorber - for treating oil-contg. waste water
MITSUBISHI RAYON KK 21.11.77-JA-139655
J01 (08.06.79) B01d-15 B01d-17/02

Adsorbent layer is set in an adsorber to provide upper and lower spaces. Waste water contg. an oil is introduced through a pipe and a valve from nozzles into the adsorber. When oil drops of relatively large dia. are contained in the waste water, they are floated upwards, to be discharged. Air remaining in the top part of the adsorber is removed through a valve. The waste water is passed through the adsorbent layer to adsorb the oil component. The treated and cleaned water is exhausted and the coarse grain oil is introduced from the adsorbent layer through a pipe and a valve into an oil tank.

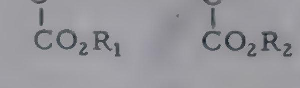
Adsorber has excellent absorbing performance and may be operated for a long time. 21.11.77 as 139655 (6pp35)

TORA ★ D15 53503B/29 ★J5 4071-782
Semipermeable membrane e.g. for desalinating sea-water - is of modified vinyl polymer
TORAY INDS INC 21.11.77-JA-138904
A88 J01 (A14) (08.06.79) B01d-13

Membrane is mainly of a modified polymer obtd. by reacting a vinyl polymer having repeating units of formula (I) and/or (II) (where R_1 and R_2 are each H or an organic gp.)



(I)



$$-\underset{CO_2R_1}{C}-\!\!-\!\!-\underset{CO_2R_2}{C}-$$

(II)

with 1 cpd. of formula H_2N-R-Xn or YCN-R-NCY (where R is opt. substd. aliphatic or aromatic gp; X is OH, SH or NH_2; n is 0, 1 or 2; and Y is 0 or S), and the cpd. obtd. by reacting a cpd. of formula YCN-R-NCY and OH-contg. cpd.

Membrane is used e.g. for removing contaminants from waste waters and selective recovery of useful material. 21.11.77 as 138904 (4pp96)

YAMA- ★ D15 53504B/29 ★J5 4071-783
Filter for oil-contg. waste water - comprises pair of cylindrical membranes concentrically disposed in cylindrical container
YAMATO RIKEN KOGYO 18.11.77-JA-139121
J01 (08.06.79) B01d-13 B01d-17/08 C02c-05/02

A first cylindrical filter membrane (I) is concentri
disposed in a cylindrical container, and a second c
cal filter membrane (II) is concentrically disposed

Waste water contg. an oil is introduced from an
into a filter chamber defined between the inner wall
container and (I). The waste water is turned and r
along the filter chamber and discharged from an ou
after a part of water is permeated through the filte
brane. The filtered water is discharged. If (I) is
or damaged, the waste water is introduced from the
into the filter chamber defined between (I) and (II).

The filter membrane can be automatically chang
enable a continuous filtering operation. 18.11.77 a
139121 (7pp35)

KORY- ★ D15 53506B/29 ★J5 4
Water purificn. by reverse osmosis - where isobutene-
anhydride copolymer is added to water to prevent adhesion
to membrane
KORYU KOGYO KK 19.11.77-JA-139250
A97 (A14 A17) (08.06.79) B01d-13 C02b-01/82

In purifying continuously water by reverse osmosis,
tene-maleic anhydride copolymer or its salt is adde
water. Molecular wet. of isobutene-maleic anhydri
polymer and its salt is pref. 2000-20,000. The con
isobutene is 20-70 (pref. 50)%. The amt. added to
is 1-300 (3-30) ppm.

Adhesion of scale to membrane surface and lower
permeability may be prevented for a long period of t
19.11.77 as 139250 (2pp96)

KORY- ★ D15 53517B/29 ★J5 40
Water purificn. by reverse osmosis - where colloidal silica is
to water to prevent scales adhering to the membrane
KORYU KOGYO KK 19.11.77-JA-139249
(08.06.79) B01d-13 C02b-01/82

In continuous purificn. of waters, e.g. sea water an
strial waste water etc. by passing it through revers
tic membrane, the improvement comprises adding t
water to be purified colloidal silica having the granu
size of 1-100 mu in amt. of 1-500 (3-50) ppm so that
ing of scales to the surface of the membrane is effec
prevented without suffering any hydrolysis as shown
ventional anti-scaling agent, e.g. sodium hexametap
ate and sodium tripolyphosphate, etc.

In an example, 10 ppm of colloidal silica is added
water, and the sea water is treated by the reverse o
procedure by use of semi-permeable membranes (T
sold from Pattern Candy International Co. Lowering
permeability with lapse of time is hardly observed,
recovery of purified water is very high. 19.11.77 as
139249 (2pp34)

HIRO- ★ D15 53519B/29 ★J5 40
Cyan-contg. waste water treatment - by contacting with bed
fungi such as Aspergillus, Cladosporium, Paecilomyces
Penicillium
HIROSHIMA GAS KK 19.11.77-JA-139205
A41 E16 M11 (08.06.79) C02c-01/02 C02c-05/10

Cyan-contg. waste water, e.g. discharged from plati
factory, acrylonitrile-producing plant, metal-smelti
plant, steel plant, photography plant, etc., is effecti
purified by contacting with a bed contg. $\geqslant$1 fungi, es
selected from Aspergillus restrictus, Aspergillus ve
corlor, Cladosporium cladosporioides, Paecilomyces
varioti, Penicillium charlesii, Penicillium citrinum
Penicillium implicatum.

In an example, Penicillium implicatum fungi is ce
fuged, after which 500 mg (under dried state) of the f
is added to 100 ml of inorganic culture medium contg.
ppm of cyan followed by culturing at 30°C and pH of 7
for one hr. The cyan concn. was found 1 ppm. The
ganic salt medium contains 0.5 g/l of $(NH_4)_2SO_4$, 2.0
of KH_2PO_4, 0.25 g/l of $MgSO_4.7H_2O$, 1.0 g/l of $FeCl_3$
1.0 g/l of $CaCl_2.2H_2O$, 0.008 g/l of $ZnSO_4.7H_2O$ and
of water. 19.11.77 as 139205 (6pp34)

★ D15 53520B/29 ★J5 4071-857

nia contg. waste water treatment - using series-connected
rification, pre denitrification, final nitrification and fina
fication zones

ARA INFILCO KK 21.11.77-JA-139739

08.06.79) C02c-01/02

gical denitrification of ammonia-contg. waste water,
rises connecting in series and succession (A) initial
ication system, (B) initial denitrification system, (C
ndary nitrification system and (D) secondary denitrif
n system. In stage (A) ammonia is left in the waste
r; part of the effluent from stage (B) is returned to ( )
he remainder is passed to stage (C) to nitrify complet-
ne ammonia contained therein. This is followed by d n
cation in stage (D). The amts. of oxygen and hydrog n
or, required for the nitrification and the denitrificati n
reduced compared to an NO_3-type denitrification, an
mt. of alkali to be added to the initial nitrification pr -
re is reduced. 21.11.77 as 139739 (4pp34)

★ D15 53521B/29 ★J5 4071-85

gical denitrification of ammonia-contg. waste water -
ring reduced quantities of oxygen and hydrogen donor

ARA INFILCO KK 21.11.77-JA-139740

(08.06.79) C02c-01/02

ological denitrification of ammonia-contg. waste
r, the improvement comprises effecting in series ini
denitrification procedure, initial nitrification proced-
sec. nitrification procedure and sec. denitrification
edure in succession, carrying-out the nitrification
tment in the initial nitrification procedure in such a
that ammonia remains in the waste water, recircula-
a portion of the nitrificated liquor to the initial denit-
cation procedure, introducing a remaining portion of
nitrification liquor into the sec. nitrification procedur
itrify completely the remaining portion of ammonia, and
pleting the denitrification treatment in the sec. denit-
cation procedure.

The amts. of oxygen and hydrogen, donnor, necessary
he nitrification and the denitrification, resp. are redu
and the amt. of alkali added to the initial nitrification
reduced. 21.11.77 as 139740 (5pp34)

A ★ D15 53658B/29 ★J5 4072-767

atment of waste soln. by/produced in regeneration of active
bon - used to absorb polymerisable monomers, by polymerising
nomer and removing resulting solid polymer

UNITIKA KK 22.11.77-JA-140492

A41 E14 J01 (A13 D22) (11.06.79) B01d-53/02 C02c-05/02

adsorbing a polymerisable monomer with active C and
generating the active C with water vapour to by-produce
waste soln. contg. the monomer, the improvement com-
ses polymerising the monomer of the waste soln. to ob-
n a solid type polymerised substance, and removing the
id substance from the waste soln.

In an example, a gas contg. sytrene was contacted with
rous active C to adsorb styrene therewith. The active
was regenerated with water vapour to obtain a soln.
ntg. styrene. The soln. was stirred and heated at 90°C
the presence of benzoyl peroxide to obtain a white solid
polystyrene. The solid was filtered out from the soluti-
to obtain a transparent filtrate. 22.11.77 as 140492
pp51)

AI ★ D15 53659B/29 ★J5 4072-768

eating waste sludge, industrial material, dust, etc. - by adding
ric acid or borate, melting and then solidifying

EBARA INFILCO KK 22.11.77-JA-140314

J09 (11.06.79) B01j-01

he method comprises adding 3-100 pts. wt. boric acid or
rate to 100 pts. wt. waste substance; and heating the
ixt. to melt it. The boric acid is H_3BO_3, HBO_2, $H_2B_4O_7$,
$_2O_3$ or $B_2O_3.3H_2O$. The borate is M_2BO_3, MBO_2, $M_2B_4O_7$,
$_4B_2O_3$ or $M_4B_8O_{12}$ (pref. $Na_2B_4O_7$, $Na_2B_4O_7.10H_2O$ or Ca_2
$_6O_{11}.5H_2O$).

In an example, drained waste sludge was calcined to ob-
in an ash; and the mixt. was melted at 1,250°C and then
olidified.

The waste substance can be melted at low temp. 22.11.77

MITO ★ D15 53661B/29 ★J5 4072-770

Treatment of soln. from wet process desulphurisation of waste gas - by adding sulphuric acid to soln. contg. calcium or sodium salt and absorbed sulphur oxide(s) and heating to remove COD

MITSUBISHI HEAVY IND KK 22.11.77-JA-139450

E36 J01 (11.06.79) B01d-53/14 C02c-05/02

Method comprises absorbing SOx of the waste gas with an aq. soln. or an aq. slurry contg. Ca salt or Na salt, adding H_2SO_4 to the resulting waste soln. and heating the waste soln. under atmospheric pressure to remove COD components.

In an example, a waste boiler gas by-produced in combustion of heavy oil was contacted with a soln. of $Ca(OH)_2$ to absorb SOx from the waste gas. The waste soln. was oxidised with air to convert $CaSO_3$ of the soln. to $CaSO_4$. A supernatant soln. contg. $CaSO_4$, Cu, dithionate, and 120 ppm of COD was obtd. from the oxidised soln. Conc. H_2SO_4 was added to the supernatant soln. and the resulting supernatant soln. was heated to remove COD. 22.11.77 as 139450 (3pp51)

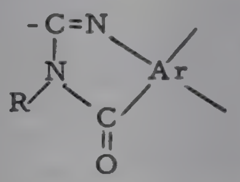
TORA ★ D15 53667B/29 ★J5 4072-777

Semipermeable membrane for treating brine, sea water or waste water - comprises cyclic quinazolone polymer

TORAY INDS INC 22.11.77-JA-140469

A88 J01 (A26) (11.06.79) B01d-13

The semipermeable membrane consists of as a main component repeating units contg. cyclic quinazolone of formula (I). In (I) Ar is aromatic group; R is opt. substd. or aliphatic, alicyclic, aromatic, or heterocyclic group. The unit is, for example, a quinazolone polymer.



(I)

In an example, 50 pts. of a N-methyl-2-pyrrolidone soln. of a polyqinazolone polymer was mixed with 200 pts. of water to reprecipitate the polymer. The polymer was filtered out, washed with acetone, and dried at 40-50°C for 10 hours under vacuum. 4 pts. of the dried polymer were dissolved in 196 parts of N-methyl-2-pyrrolidone to obtain a casting soln.

The casting soln. was coated on the surface of a polysulfone base film, and dried at 150°C for 20 minutes to obtain a semipermeable membrane. The membrane was used for prodn. of fresh water from sea water. 22.11.77 as 140469 (7pp51)

HITA ★ D15 53668B/29 ★J5 4072-779

Sterilising reverse osmosis appts. - using an aq. soln. of salicylic acid under pressure

HITACHI KK 24.11.77-JA-140039

E14 J01 (11.06.79) B01d-13

The method comprises adjusting an aq. soln. of salicylic acid to pH < 5; and passing the soln. through reverse osmosis appts. under pressure to sterilise it.

The reverse osmosis appts. is used to treat liquor with high BOD. 24.11.77 as 140039 (3pp51)

SEKI ★ D15 53748B/29 ★J5 4073-463

Starch-contg. waste water treatment - by adding chitosan and a polymer having carboxylic or sulphur residue and opt. a coagulant

SEKISUI CHEMI IND KK 22.11.77-JA-140186

A91 (D13 D17) (12.06.79) B01d-21/ C02c-05/02*

Floating starch matters are effectively removed by coagulation sedimentation from starch-contg. waste waters, e.g. discharged from mill, starch-producing plant, brewery and food-processing plant, etc. by adding chitosan and a polymer cpd. having carboxylic or sulphur residue in molecule, e.g. Na alginate, CMC, polyacrylate acid and Na salt of carrageenan etc. at pH 3-6., opt. together with coagulating assistant, e.g. $Ca(OH)_2$, $CaCl_2$, potassium prim. phosphate and potassium sec. phosphate, etc. to coagulate together the floating starch matters.

An insol. composite polymer electrolyte is formed in the water between chitosan (polycation) and the polymer cpd. (polyanion), and the floating starch matters are adsorbed thereon on it is pptn. The amt. of chitosan used is 0.2 2.0 wt.% and the amt. of the polymer cpd. used is 0.1-2.0 wt.% against the total amt. of the floating starch matters. 22.11.77 as 140186 (4pp34)

EBAI ★ D15 53749B/29 ★J5 4073-464

Coagulation-sedimentation treatment of waste water - by addn. of polyvalent metal salt, cationic organic polymer coagulant and anionic organic polymer coagulant

EBARA INFILCO KK 22.11.77-JA-140313

A91 (12.06.79) B01d-21/ C02c-05/02*

Organic waste water is subjected to very economical coagulation sedimentation treatment by adding 100-5,000 mg/l of polyvalent metal salt, e.g. $FeCl_3$, Al sulphate, $FeSO_4$, CuCl, etc. 10-500 mg/l of cationic organic polymer coagulant, e.g. water-soluble acid salt of aniline resin, polythiourea-hydrogen chloride, polyethyleneimine, cationic modified polyacrylamide, polyvinylpyridine hydrogen chloride and copolymer of vinylpyridine etc., and 0.5-10 mg/l of anionic organic polymer coagulant, e.g. partial hydrolysate of polyacrylamide, Na polyacrylate, copolymer of maleic acid, etc.

Each of the additives may be added simultaneously, but they are more effective when added in succession i.e. the polyvalent metal salt, the cationic organic polymer coagulant and the anionic organic polymer coagulant. Quality of treated water is improved with excellent coagulation and sedimentation rate with a decreased amt. of sludge produced. Cost of the treating agent is lowered and the size of the installations is decreased. 22.11.77 as 140313 (2pp34)

KYOX ★ D15 53750B/29 ★J5 4073-465

Fluorine removal from waste water - by adding calcium (hydr)oxide, phosphoric acid or water-soluble phosphate, and sulphuric acid

KYOWA KAKO KK 24.11.77-JA-140880

E36 (12.06.79) C02c-05/02

The process comprises adding $Ca(OH)_2$ and/or CaO to ppte. by coagulation, the greater part of the fluorine in the form of CaF_2; adding phosphoric acid or water-soluble phosphate to the sepd. liquor to form an F-contg. suspension; and adding H_2SO_4 to adjust the pH to 6-8 (without instantaneously sepg. the suspended matter) to separate the suspension by coagulation sedimentation.

The process avoids use of excess amts. of H_3PO_4. 24.11.77 as 140880 (5pp34)

DAID- ★ D15 53751B/29 ★J5 4073-466

Treating waste liquor from methyl methacrylate prodn. - using neutral phosphoric ester solvent to remove sulphuric acid and removing ammonium sulphate by hydr)oxide or carbonate addn.

DAIDO KAGAKU SOCHI 24.11.77-JA-141233

A41 E17 (12.06.79) C02c-05/02

An acidic organic waste liquor (resulting from the prodn. of methyl methacrylate) containing a large amt. of H_2SO_4, NH_4HSO_4 and methyl methacrylate oligomer etc. is treated simply and economically.

Method comprises (a) contacting with neutral phosphoric ester solvent to extract H_2SO_4; (b) treating the solvent with water to recover H_2SO_4, (c) sepg. reffinate into two portions; (d) adding alkali or alkali(ne earth) metal oxide, hydroxide or carbonate, e.g. NaOH, KOH, $Ca(OH)_2$, $Mg(OH)_2$, CaO, MgO, Na_2CO_3, K_2CO_3, $MgCO_3$, etc. to one of the portions in amts. of at least more than the equiv. w.r.t. NH_4HSO_4 contained to release NH_3 which is then absorbed in the remainder so as to be converted into ammonium sulfate. 24.11.77 as 141233 (5pp34)

KOGY ★ D15 53752B/29 ★J5 4073-467

Treatment of ammonium ion-contg. waste water - includes neutralising and contacting with an adsorber

IND RES INST OF JAPAN 24.11.77-JA-141416

(12.06.79) C01c-01 C02c-05/02

A dil. NH_4^+-contg. waste water is effectively treated to make it harmless and to recover conc. NH_4^+-contg. water, by adding alkali to adjust the pH to about 7; initially contacting the neutralised water with an adsorber (comprising natural tuff) followed by further contacting with regenerated adsorber and outflowing into rivers, etc.; changing-over the adsorber to desorption procedure after blowing-down dead space liquor which is recirculated to the crude waste water or to the neutralised waste water, or directly changing-over the adsorber to the adsorption procedure and recirculating an initial dead space portion to the crude or neutralised waste water as the dead space liquor; contacting desorbing liquor with the adsorber to recover a
conc. NH_4^+-contg. liquor, or recovering a portion
using the remainder as the middle desorbing liquor
ed by contacting with a liquor contg. high conc. Na
practically containing no NH_4^+ as the desorbing liqu
make it as the middle desorbing liquor and to regen
the adsorber, and adding alkali to the recovered hig
NH_4^+-contg. liquor followed by stripping-off to reco
NH_3 or ammonia water. 24.11.77 as 141416 (9pp34

MITU ★ D15 53753B/29 ★J5 4

**Denitrification process for water - using activated sludg
supplying hydrogen donor, under controlled pH conditions**

MITSUBISHI CHEM IND KK 24.11.77-JA-140921

(12.06.79) C02c-01/06

In denitrification of NO_3 and/or NO_2-contg. water by
tinuously supplying the NO_3 and/or NO_2-contg. wate
conc. liquor of activated sludge composed mainly of
trification bacteria to a denitrification vessel and a
uring vessel having smaller volume than the denitrif
ion vessel under equal retention time, and simultane
supplying hydrogen-donor required for reducing NO_3
NO_2 to N_2, improvement comprises supplying the hy
donor to the measuring vessel in an amt. such that N
and/or NO_2 is completely reduced to N_2, while suppl
the H donor to the denitrification vessel in amt. such
the pH in the measuring and denitrification vessels s
the following. The pH value in the measuring vessel
$\leqslant$ the pH value in the denitrification vessel $<$ the p
in the measuring vessel, so that the supply of the hy
donor is carried out accurately without any shortage
surplus, and therefore the denitrification reaction p
adequately without having excess hydrogen donor in t
treated water. 24.11.77 as 140921 (6pp34)

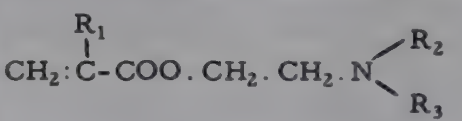
NISW D15 18148W/11 =J7 90

**Waste water coagulating treatment - using water-sol. copoly
acrylamide and dialkylamino ethyl (meth)acrylate coag
agents**

NISSHIN OIL MILLS KK (NISS) 25.09.72-JA-095237

*A91 (A14) (22.06.79) *J49052-782 +B01d-21/* C02c
C08f-20/56*

Water-sol. copolymers of acrylamide and 2-(dialkyla
ethyl acrylate or methacrylate of formula (I):



$$CH_2{:}\overset{R_1}{\overset{|}{C}}\text{-}COO.CH_2.CH_2.N\begin{matrix}\diagup R_2\\ \diagdown R_3\end{matrix}\quad (I)$$

(where R_1 is H or M
R_2, R_3 is 1-4C alky
have the improved
gulating capability
suspended material
waste water and produce sludge with improved filtera
The copolymers should contain at least 15 mole % (I).

In an example, 84 mole % acrylamide monomer an
mole % 2-(dimethylamino)ethyl methacrylate (II) were
soln.-polymds. in the presence of K persulphate at 5
and the pH was adjusted to 3 with HCl to obtain an aq
acrylamide-(II) copolymer soln. (viscosity 100P). Th
100 ppm., based on the copolymer, of the aq. soln.
added to waste water (COD 17,500ppm) and after slow
agitating the water water was vacuum-filtered. The r
ing waste water had COD 65 ppm. 25.9.72 as 095237
B01d-21/01; C08f-20/56; C02c-5/02 (22.6.79) NISSHI
OIL MILLS LTD. (3pp) (J4 9052782)

TANA- ★ D15 53812B/29 ★J7 901

**Electrolytic purificn. appts. for waste water - using gra
electrodes which are fluidised by upward passage of the water**

TANAKA KIKAI KK 27.00.74-JA-001476

(23.06.79) C02b-01/82 C02c-05/12

Appts. comprises positive and negative porous electr
plates in an electrolysing tower, granular electrode m
erial being mounted on each of the upper positive plat
and downcomers at the ends of the electrode plates pr
jecting alternatively from the right and left tower wal
so as to form flowing-down paths for the granular elec
material between the tower wall and each of the downc
ers. The water is continuously or intermittently pass
upwardly from the bottom of the tower to fluidise the
ular electrode material. 27.00.74 as 001476 C02c-5/
C02b-1/82 (23.6.79) TANAKA KIKAI KK (5pp34)
(J5 0097154)

r D15 B/29 ★RU --64-027
ation of waste water from coal processing plant - facilitated
sonic vibrating application
CARBUNELUI 26.09.73-RU-076167
(15.06.78) C02c-05

D15 B/29 ★RU --64-039
cal purification of aq. effluents - applicable to Solvay process
nd involving stabilisation stage
SISTEMAT COMUN 01.08.74-RU-079645
1.06.78) C02c-03

★ D15 B/29 ★RU --64-202
aeration appts. for treatment station basins
R MECANN MASINI 12.02.74-RU-077634
31.07.78) C02b-01/28

★ D15 B/29 ★RU --66-168
ng water prodn. using portable appts.
T IND CHIM ALIME 05.02.73-RU-073730
30.10.78) C02b-01/82

★ D15 B/29 ★RU --66-169
appts. for obtaining potable water - based on electrolytic
ation and sterilisation
ST IND CHIM ALIME 23.02.73-RU-073951
30.10.78) C02b-01/82

★ D15 B/29 ★RU --67-024
water purification - by treatment with mineral compsn. of
ied particle size
MB INGRASAM AZOTO 26.04.73-RU-074629
(30.10.78) C02c-01/40

= ★ D15 54024B/29 ★SU -625-745
natic control of suspension settling tanks - by stabilising rate of
ion of slurry density by change of setting with density
ion
LURGY RES PLAN 28.05.75-SU-138034
R26 (10.08.78) B01d-21 G05d-27
ension settling tanks are conventionally controlled by
ing the flow rate of the discharged slurry according to
ensity. This is ineffective owing to variation of the
l component and poor clarification of solns.
ow control is improved by stabilising the rate of var-
n of slurry density by changing this settling on change
e initial slurry density. Discharge proceeds at the
density. The method is useful e.g. in purifying ooze-
ated salt solns.
tskii E.A., Nuraev R.Kh., Leonova T.B. Bul. 36/
.78 28.5.75 as 138034 (2pp840)

S/ ★ D15 54025B/29 ★SU -625-746
d cleaning filter used, e.g. for natural and aq. waste - has a
rated pressing cone with pins distributed over its internal
ce
AKSIMOV G M 01.04.77-SU-467606
01 (10.08.78) B01d-23/24 B01d-29/38
er is used for cleaning liquids, e.g. for purifying
ral waters and effluents. It comprises a body with
s to feed in the impure liquid and take away the purif-
liquid, perforated conical drum to which elastic fleecy
erial is fastened, plus a regenerating device. The
ation of the filter is made more effective, as a result
niformly compressing the filter cloth and improving
egeneration by fitting the filter with a perforated pre-
g cone with pins distributed over its internal surface.
drum is fitted with flat springs and plates, with the
r cloth fastened to the latter.
simov G.M., Bul. 36/30.9.78 1.4.77 as 467606 (4pp

= ★ D15 54046B/29 ★SU -625-773
tro-coagulator for treating dispersed systems - has inner plates
nected to electrodes of one polarity and outer ones as electrodes
ENGD ENG CON INST 04.12.75-SU-196711
241 (14.08.78) B03c-05 C02c-05/12
electocoagulator comprises a body contg. a set of el-
rodes parallel to each other and two pairs of perforat-
plates set perpendicular to the electrodes either side
he set. To reduce treatment time and increase degree

the electrode set is connected to electrodes of one polarity and each of the two perforated plates farthest from the electrode set serves as an electrode of opposite polarity to the plates nearest to the set. The device can also be used to purificn. of natural and waste water.

Lavrov I.S., Kuznetsov V.V., Magalnik F.M., et al. Bul. 36/30.9.78 4.12.75 as 196711 (2pp18)

MINE= ★ D15 54145B/29 ★SU -626-043
Magnetic treatment appts. for water and aq. systems - has diamagnetic container which rotates, and permanent magnet rings outside it
MINE CHEM ORE RES 07.04.75-SU-122443
(18.08.78) C02b-09

Appts. for magnetic treatment of liquids, e.g. water or aq. systems, in various systems making use of these, comprising a rotatable cylindrical diamagnetic containers, through which the liquid passes, and which has a magnetic system on its outside. To provide the possibility of regulating the value of the three-dimensional gradient of the strength of the magnetic field, and to increase the effectiveness of the magnetic treatment, the magnet system is made as cylindrical permanent magnets, mounted in two coaxially-positioned rings, one of which is made to rotate about the common axis.

Agafonov G.S., Bukholdina V.M., Bruk O.B., et al. Bul. 36/30.9.78 7.4.75 as 122443 (2pp29)

TUPO ★ D15 54146B/29 ★SU -626-044
Magnetic processor for water softening control - in which residual change of hardness is measured after water has passed through process object
TULA POLY 01.07.75-SU-145303
R26 (21.08.78) C02b-09 G05d-27

Control of a magnetic processor for water conventionally includes determination of the optimum gap field strength in the processor from the difference between the entry and the residual values of the measured parameter (hardness).

Now for greater effectiveness, the residual change of the parameter is measured after the water has passed through the process object as well as the processor.

The method is useful in natural water systems to reduce scaling in heat engineering. Use of the invention enables processor duty to be optimised to avoid scaling e.g. in a heat-exchanger. Heat exchange is increased and the lift of the heat-exchanger is prolonged.

Malov D.I., Popkov N.A., Gurtatovskii A.P. et al. Bul. 36/30.9.78 1.7.75 as 145303 (2pp840)

CEPA ★ D15 54147B/29 ★SU -626-045
Waste water biological purificn. equipment - has aeratable container divided into cells by intersecting screens connected by valves at cell communicating points
CELLULOSE PAPER IND RES 13.12.74-SU-108639
(18.08.78) C02c-01/02

Device is used for the biological purificn. of effluents, from mining and industrial processes. It includes an aeratable container, fitted with intersecting vertical partitions, which divide the space inside the container into cells. The operation of the equipment in the mode of an aeration tank/displacer or an aeration tank/mixer is guaranteed, as well as increased degree of purificn. of the effluent, by providing the equipment with compartments with valved-regulating accessories, connecting each of the adjacent cells, with the spaces in the compartments disposed at the points where the partitions are connected together.

Braginskii L.N., Evilevich M.A., Lakhti I.A. et al. Bul. 36/30.9.78 13.12.74 as 108639 (3pp29)

CEPA ★ D15 54148B/29 ★SU -626-046
Water purification control system - has outputs from acid-base buffering and water colour meters to computer controlling reagents dispensers
CELLULOSE PAPER IND RES 23.09.75-SU-175533
F09 R21 R26 (18.08.78) G02c-05/02 G05d-27

The usual control system for treating water by a reactant contains a coagulent and acid dispensing system and meters for acid-base buffering and water colour. In this case the expenditure on coagulant and acid is too great.

Now a computer is introduced for greater economy and improved quality. The invention is useful in purifying industrial and public water supplies esp. in the chemical and paper-cellulose industries. The signals from the two meters are fed to the computer which calculates the requisite doses of coagulant and acid and forms corresponding signals. These signals. These signals are fed to the appropriate dispensing systems which also set the requisite dosage.

Alesina I.G., Kostygin V.N., Kruchnak M.M. et al.
Bul. 36/30.9.78 23.9.75 as 175533 (2pp840)

VODG= ★ D15 54149B/29 ★SU -626-047
Automatic oxygenating tank sludge conditions controller - increase overall performance by oxygen flow integration, and sludge surplus dispensing and output regulation
VODGEO WATER SUPPLY 30.03.77-SU-466761
R26 (18.08.78) C02c-05/10 G05d-27

The controller comprises an oxygen flowmeter, a level gauge, and a surplus sludge remover. To control a tank sealed on a gas-phase basis, and to increase accuracy and reliability, it also incorporates a surplus sludge dispenser, an output regulator, and an oxygen flow integrator. The device is used for biochemical purificn. of waste water.

Pateyuk V.M., Bul. 36/30.9.78 30.3.77 as 466761 (2pp 132)

TSPO= ★ D15 54199B/29 ★SU -626-10
Soluble polyelectrolytes prepn. for use as flocculants - from di:chlorohydrin and ethylene di:amine or hexa:methylene-di:amine in solvent at room temp., used in hydrometallurgy biochemistry, etc.
TASHK POLY 25.04.77-SU-480601
A91 (05.09.78) C08g-83 C08j-05

1,3-dichlorohydrin (1 mol) reacts with ethylenediamine or hexamethylenediamine (1 mol) in water, acetone or alcohol at room temp. for 6-8 hrs. giving 96-98% yields of polyelectrolytes (I). The prods. are purified by distilling off reaction solvents, washing with benzene and petroleum ether and drying at 20 °C in vacuum. They are sol. in water, alcohols and DMF.

(I) derived from ethylenediamine has reduced viscosity in water 0.52 dl/g and in 0.1 N KCl dl/g, static exchange capacity (0.1 N $AgNO_3$, Mor method) 11 meq/g and Cl content 36%.

Edgarov N.N., Dzhalilov A.T., Askarov M.A., et al
Bul. 36/30.9.78 25.4.77 as 480601 (2pp1360)

DONE= ★ D15 54251B/29 ★SU -626-328
Deaerating and cooling unit for steam boiler feed water - has double-staged ejector and double-sectional condenser-deaerator
DONETS FERR METAL 06.04.77-SU-472670
J01 Q75 (11.09.78) F25b-01/06

The cooling-dearation unit can be used for simultaneous cold prodn. and removal of non-condensing gases from steam boiler feed water. The unit contains steam-water ejector refrigeration machine with an ejector, evaporator, cold utilisers and condenser-dearator which is cooled by dearation water. To improve the dearated water quality by increasing its temp. and pressure without cold prodn. redn., the ejector is made double staged. The condenser-dearator is double-sectional. The condenser-dearator first section is connected between the ejector stages. The sections water connection line is provided with a hydropump.

Kurilov G.V., Litvin O.P., Afendikov A.E. et al. Bul. 36/30.9.78 6.4.77 as 476270 (2pp110)

WATE= ★ D15 54276B/29 ★SU -626-386
Surface layer sampler for liquids - has rod for reciprocating movement of sampling cup, can be used for water contamination research
WATERS PROTECT RES 25.03.77-SU-465217
R16 (22.08.78) G01n-01/12

The sample comprises a casing and a container made as a cup. To improve performance, the bottom of the cup is secured to the casing, and the cup walls are free to move relative to the bottom.

The device can be used for investigation of liquids, e.g.
examining water from reservoirs contaminated wi
etc. and also for research into microbiological co

Pref. to give reciprocating movement, a sprin
rod is linked to the cup walls, in association with
control mechanism, and the casing has a measure
scale.

Nikolchenko Yu.V., Ostroverkh I.A., Bul. 36/30.
25.3.77 as 465217 (3pp132)

ELSA/ ★ D15 54303B/29 ★SW
Biological degradation of phenol in aq. effluent - by trea
Pseudomonas nitrificans CBS295 and Polyporus versicolor
and then Pseudomonas dinitrificans CBS290
EL-SAYED R M 27.09.77-SW-010790
E14 (30.04.79) C02c-05/10

ESMI- D15 15095Y/09 #US
Incinerating dewatered sewage sludge - using mixed coal
supplementary fuel
ESMILENVIROTECH LTD 03.10.75-GB-040596 (23.1
744413)
*+Q73 (03.07.79) *GB1465-869 F23g-05*

Dewatered sewage sludge in wet condition is incine
when mixed with wet coal fines, which are recover
supplementary fuel from a wet benification process
coal, in the form of either coal filter cake or ex-la
sludge.

Pref. the dewatering occurs in a continuous pro
Coal fines are admixed to the sewage prior to the c
ion of sludge dewatering. Dewatering process is by
rifugation and filtration and mixt. is continuously i
ated. Amt. of coal fines added is ≥80 wt.% w.r.t.
tered sludge and dry matter of coal fines. Moistur
ent of coal fines is 20-35 wt.%.

Process used is highly economical. The supple
fuel used is a material with little alternative use.
as 744413 (2pp931)

ERIC/ ★ D15 54379B/29 ★US
Processing of waste waters - to remove heavy metals,
sterilisation, and afford agricultural irrigation water
fertiliser etc.
ERICKSON L G 13.02.78-US-877195
A91 (03.07.79) C02c-01/06

In the known processing of waste water by prim. an
treatments which include (as biochemical reaction)
tivated sludge process where the waste water is sep
a sludge component and a clarified effluent, salvagi
recycling of the valuable components is improved a
ows: (a) the prim. sludge sepd. from conventional p
treatment is comminuted, and added to the organic
the sec. treatment; (b) the sludge sepd. from the bi
ical reaction of the conventional sec. treatment is p
rised to rupture all the walls of the cells in the slud
discharge the cells' contents as a colloidal suspensi
the colloidal suspension is combined with the carifie
luent and the mixt. is treated with a metal chelating
rate (I) to remove all the contained heavy metals.

Process effectively and economically converts ra
age waste water to agricultural irrigation water, liq
iliser, etc. In addn., toxic heavy metals are remov
and a wide variety of biological life (bacteria, fungi,
protozoa, eggs, worms, seed, etc.) is destroyed.
prod. is esp. useful in semi-arid or H_2O-deficient a
13.2.78 as 877195 (7pp478)

METG ★ D15 54380B/29 ★US
Nitrate and solids removal from waste water - by passage
filter bed inoculated with denitrifying bacteria
DRAVCO CORP 31.01.74-US-438466 (02.09.70-US-068917
(03.07.79) C02c-01/06

Waste water contg. dissolved nitrates and suspende
is passed downwards through a deep bed filter of ha
vel-like material of particle size 1-6 mm, having s
between them in which nitrogen bubbles can be trapp
The bed is inoculated with denitrifying bacteria, wh
troy nitrates, releasing gaseous N_2. Solid particles
water are trapped at the same time. Periodically th
is backwashed to remove trapped solids, gas bubble
some bacteria, but enough bacteria are left to

fication process.
process is esp. suitable for treating effluent from
e treatment. 31.1.74 as 438466 Div. ex. 3709364
0.72-US-302398) (5pp955)

D15 24928X/14 =US 4159-946
tion of hard water deposits - using polycarboxyl substd
orus cpds
A GEIGY LTD 11.06.74-GB-025853
*E11 (03.07.79) *FR2274-565 C02b-05/06*

of the scale forming salts of Ca, Mg, Ba and Sr form
ystems, is inhibited by adding 1-200 ppm of a prod.
rising a telomeric cpd. of formula $RR_1P(O)$-[CH_2C(C·
'']$nCH_2CHR''CO_2H$ (I) or its salt-forming derivs.
(I) R'' is H, CH_3 or C_2H_5, R_1 is a residue -OX (wher
-4C alkyl or H), R is H, 1-18C alkyl, 5-12C cyclo-
phenyl or benzyl, and nis a positive integer ⩽100).
s excellent activity and may be used in conjunction
corrosion inhibitors and anti-foaming agents. 24.1.78
1986 Div. ex. 4046707, 4127483 (+29.5.75, 29.12.76-
2402, 755605) (8pp924)

BROO/ ★ D15 54381B/29 ★US 4159-947

Sludge dewatering apparatus - in which sludge is sandwiched between belts passing around a dewatering drum and pressure rollers

BROOKS L L 29.08.77-US-828318 (17.05.76-US-687377)
J01 (03.07.79) B01d-33/14

Apparatus for dewatering slurry, such as sewage sludge, includes a first porous endless belt having an upper run passing over a vacuum chamber and a lower run passing around a dewatering drum and then zig-zag fashion around pressure rollers. Prior to passage over the drum the sludge is covered by a second porous belt which runs with the first until it is clear of the pressure rollers. At least one higher tensioned metal mesh belt also runs with the first and second belts through the pressure rollers to apply additional pressure to the sludge.

Maximum dewatering in the minimum of time is achieved. 29.8.77 as 828318 (9pp525)

See Also

D16 GB 1548903 D22 J5 4073119

D16 : FERMENTATION INDUSTRY

★ D16 52549B/29 ★BE -873-465
rmination of creatine kinase isoenzyme(s) - using immobilised
zyme and a marked specific antibody associated with an
me
MITH KLINE INSTRUM 16.01.78-US-869733
04 J04 R16 (16.07.79) G01n

atine kinase isoenzymes are detected and determined
liq. sample. A creatine kinase isoenzyme, immobili-
on a water-insoluble support is incubated with a speci-
antibody for the isoenzyme sub-unit which is associated
alently with an enzyme, and also with the sample of
contg the isoenzyme which is to be determined. The
oluble support is sepg and the activity of the enzyme as-
ated with the antibody fixed on the insoluble support is
rmined, giving a measure of the isoenzyme sub-unit
sent in the sample.
Used for diagnosis of specific disorders, such as myo-
dial infarctus. 15.1.79 as 873465 (9pp520)

S- ★ D16 ✓ 52564B/29 ★BE -874-493
rtened fermentation process e.g. of beer - using malt extract
foam agent and vibrating to release carbon di:oxide
MOLSON CIES LTD 30.10.78-CA-314811
(18.06.79) C12b

ermentation mixt. is prepd. and an antifoam agent add-
which is an ethanolic extract of ground malt. The mixt.
vibrated during fermentation to assist the escape of CO_2.
e fermentation mixt. is ref. a beer wort, which is vib-
ed continuously.
The method reduces fermentation times by 25-50%.
sides its particular use in beer mfr., the method can
principle be used for any microbiological fermentation
ocess, e.g. the production of yeast or antibiotics.
.2.79 as 874493 (5pp1331)

MM- ★ D16 ✓ 52591B/29 ★BE -874-782
eliminary extn. of hops for use in beer prodn. - comprises mixing
th water, heating, filtering and grinding with a disintegrator
SIMMERING-GRAZ-PAUK 11.05.78-OE-003409
(02.07.79) C12c

reliminary extraction of hops, accompanied by isomeri-
ion of humulone, is effected as follows. The hops are
ixed with about 30 times their wt. of water, heated for
-90 minutes at ⊁ 85°C, filtered, and ground with a dis-
tegrator.
fied grinder, equipped with and each fitted with teeth arranged in circles. The ground hops are added in one or more successive portions to the brewing vessel and/or the sepd. extraction water is added to the brewing mixt.

The lupulin contained in the hops, which contains bitter principles and essential oils, is utilized more efficiently in beer. 13.3.79 as 874782 (14pp1331)

ASTR D16 39978F/00 =DS 1966-427

Preparation of cell-free penicillin-acylase - by fermentation of E coli strain producing enzyme

ASTRA AB 03.12.68-GB-057373 (15.02.68-GB-007544)
*B02 C02 (12.07.79) *BE-727-506 +C07d-499/42*

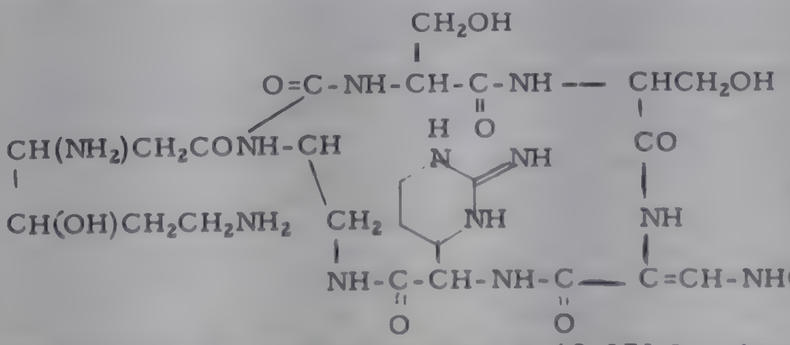
Prepn. of 6-aminopenicillanic acid comprises treatment of benzyl penicillin with penicillinamidase. The enzyme is obtd. by propagation of suitable Escherichia coli species and the enzyme is isolated from the cell material. The cell material is sepd centrifugally at 0-50° and the expelled cell tissues are extracted with water at 10-50° for 0.1-5 hr. opt. in the presence of an organic solvent and/or a base; the penicillin acylase is then attached to a polysaccharide matrix which has been treated with BrCN. 14.2.69 as 966427 Div. ex 1907365 (5pp47)

TOXN D16 02911T/02 =DS 2133-181

Tuberactinomycine - n - antibiotic from streptomyces griseoverticillat var tuberacticus

TOYO BREWING KK (TOYO) 30.06.70-JA-056467
*B03 (12.07.79) *BE-769-237 A61k-37/02 C07c-103/52 C12d-09/14*

Tuberactinomycin-N of formula (I) is new. Prepn. of cpd (I) comprises propagation of Streptomyces griseoverticillatus var. tuberacticus, FERM P-619, under aerobic cond-

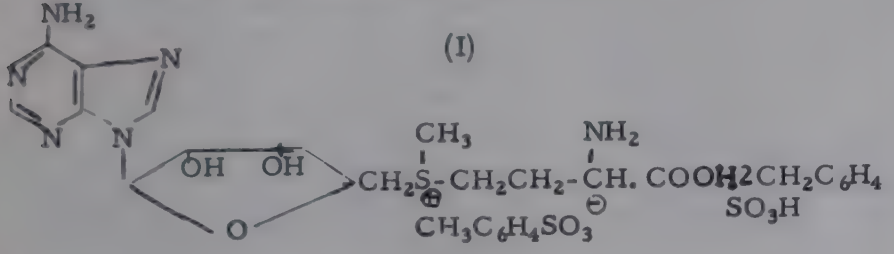


(I)

itions in an aq. nutrient medium at 18-37° for about 2-10 days, followed by isolation of (I) from the medium.

ment of tuberculosis, esp. against resistant strains.
30. 6. 71 as 133181 (11pp47)

BIOR- D16 03583V/02 =DS 2336-401
S-adenosil-l-methionine tri-para-toluene sulphonate - - for treating sugar, fat protein and biological amine metabolism
BIORESEARCH DOTT CA (ERR -) 02.08.72-IT-027793
*B02 (12.07.79) *BE-802-981 C07h-19/16*



S-Adenosyl - L - methionine tri-p-toluene sulphonate (I) is claimed. It is prepd. by reacting an aq. soln. of S-adenosyl-L-methionine and p-toluene sulphonic acid in molar ratio of 1:3-10. The soln. is opt. concentrated, and the salt precipitated by adding an organic, water-soluble solvent.

The new salt can be prepd. industrially in high yield, and has practically unlimited stability at ordinary environmental temps. so that it can be used for treating a wide variety of pathological conditions caused by disorders of metabolic processes. 17. 7. 73 as 336401 (5pp913)

HAYB D16 07272V/05 =DS 2344-586
Pullulan prepn by fermentation - with varying phosphate concns
HAYASHIBARA BIOCHEM 04.09.72-JA-087938
*B04 (D13) (12.07.79) *BE-804-441 C12d-13*

Pullulan of mol. wt. 450000-50000 is produced by culturing a microorganism on a medium contg. assimilable carbon and nitrogen sources, phosphate and nutrient. The medium has an initial pH 5-7.5 and phosphate concn. of 0.1-0.5 w/v% The working combination of 0.5 w/v% $K2HPO_4$ and Quartermaster strain No. 3092 of Pullularia pullulans is specifically excluded.

Pref. culturing is effected a pullulan yield of 20-75 wt. % is obtd. usually in 3-8 days. The carbon source is a date extract, and initial medium has pH 6-7. Microorganism used is Auresbasiduim pullulans IFO 6401, 6402, 6353 or 4464. 4. 9. 73 as 344586 (6pp913)

BEHW D16 52453X/28 =DS 2461-439
Adsorbed pertussis antigen - prepd by extracting germ cells with soln of denaturant and salt and treating with adsorbent BE240676)
BEHRINGWERKE AG 24.12.74-DT-461439
*B04 (12.07.79) *DT2461-439 A61k-39/06 C07g-07*

Protective antigens are obtd. from Bordetella pertussis by mixing its spores with an aq. soln. of one of the denaturing agents urea, guanidine or their salts and a neutral salt in a concn. of 0.3-3 mol/l at pH6-10, for 0.5-48 hrs. at 1-40°C. The supernatant is sepd. from the residue of spores, and opt. after adding a water-insol. adsorbent, the denaturing agent is sepd. from the aq. dispersion of protective antigen.

Pref. the supernatant is purified in the presence of the denaturing agent before addition of the adsorbent. The protective antigen is used as a whooping cough vaccine.
24. 12. 74 as 461439 (4pp913)

SICK/ D16 41919Y/24 =DS 2554-393
Batch process for continuous propagation of microorganisms - with supervision and control of long term cultures
SICK P 03.12.75-DT-554393
*(12.07.79) *DT2554-393 +C12b-01/10*

A device for the long-term cultivation of microorganisms has in the culture vessel a partition with a slot at the bottom which ensures that a fresh medium, admitted at the top, passes through the whole vessel. Excess medium and gas are extracted, and another metering pump adds inoculants. A pickup for a significant parameter feeds a gradient rise regulator and a control unit for a recorder. The control unit keeps the stirring mechanism at constant speed and controls all pumps.

This automates the complete process so that no supervision or interference by an operator is required. 3. 12. 75 as 554393 (7pp39)

BOEF D16 45260Y/26 =DS
Kinetic determination of enzyme substrates using coupled r
- making most specific partial reaction rate limiting and
first order, e.g. for blood sugar analysis
BOEHRINGER MANNHEIM GMBH 24.12.75-DT-558536
*B04 R16 (12.07.79) *BE-849-804 G01n-31/14 G01n-33/*

Enzyme substrates are kinetically estimated by me
coupled reactions. The reaction parameters are c
so that the most specific part reaction determines t
te for the whole reaction chain, and occurs by a fir
pseudo-first order route. The reaction is followed
asuring a variation of a predetermined time interva

Pref. the rate limiting step is arranged by addin
ess of the enzyme(s) for the other part reaction(s),
choice of the enzyme for the most specific part rea
This can be achieved by artifically altering the Mic
constant (e.g. by changing the metal atom of the act
centre, partial cleavage of the enzyme, chemically
fying the active centre, and/or altering the conform
or altering the substrate (e.g. by complexing or mi
formation). In order to set up a pseudo-first order
ction, the second and further reaction partner (whic
not the same as the substrate or resulting prod. to
termined is used in excess.

Method is used for determing blood sugar, trigly
total cholesterol, or urea. Reaction is more rapid
'fined-value' processes, so that automatic equipmen
be used. 24. 12. 75 as 558536 (6pp913)

HEFE- D16 72724Y/41 =DS 26
Stabilising powdery fresh baker's yeast - by adding solid hydr
and solid hydrophobic additives
VERSUCHS HEFEINDUST 01.04.76-DT-614348
*(D11) (12.07.79) *DT2614-348 C12c-11/26*

A powdered, free-flowing yeast compsn. which is m
storage stable contains 0.01-5.0 wt. % of a hydropho
material (esp. hydrophobic colloidal SiO_2) to aid pow
flow and 1-15 wt. % (based on yeast) of a hydrophilic
terial (e.g. SiO_2). 1.4. 76 as 614348 (5pp922)

FRAU ★ D16 52663B/29 ★DT 27
Silicic acid hetero-polycondensates - useful as substrates f
culture and as chromatographic supports for biochemical mate
FRAUNHOFER-GES FORD ANGE 28.12.77-DT-758414
A26 B04 (A96) (12.07.79) C08g-77/22

New silicic acid heteropolycondensates (I) are prepd.
from the following components: (a) 1 substd. silane
formula $SiR_nR''_{(4-n)}$ (where R is H, halogen, alkoxy,
alkylamino or dialkylamino; R" is alkyl, alkenyl, ary
or aralkyl; n=1-3); (b) ⩾1 functional silane of formula
$SiR_n(R'Y)_{4-n}$ (where R_1 is alkylene, phenylene, alkyl
ylene or alkylene-phenylene; Y is halogen, opt. subs
anilino, CHO, keto, COOH, OH, SH, CN, hydroxyphe
diazo, alkoxycarbonyl, SO_3H or PO_3H_2); (c) opt. ⩾1
hydrolysable silicic acid deriv. of formula SiR_4 (exce
SiH_4); (d) opt. ⩾1 soluble non-volatile oxide (or oxide
precursor) of a Group Ia-Va, IVb or Vb element.

The components are condensed in the presence of
least the stoichiometric amt. of H_2O required for hyd
sis and opt. in the presence of condensation catalyst
or a solvent. The components are used in amts. such
(I) contains (based on oxides) 60-90 wt. % of (a), 1-15
% of (b), 0-30 wt. % of (c) and 0-40 wt. % of (d).

The products are esp. useful as substrates for the
culture of living cells, e.g. for tissue or cell cultures
for virological research, since the cells are tightly bo
to the substrate surface. They can also be used as ch
-tographic supports for biochemical materials. 28. 12.
as 758414 (23pp367)

UHLI/ ★ D16 52679B/29 ★DT 275
Bacterial culture process - using bacterium with tempera
dependent plasmid replication
UHLIN B E 30.12.77-DT-759053
B04 (12.07.79) C12k-03

Prodn. of gene products is carried out by (a) obtaining
bacterium contg. a plasmid which has a controlled co
no. (no. of copies per cell) at one temp. (T_1) but has a
much higher or completely uncontrolled ("runaway") c
no. at a different temp. (T_2); (b) culturing the bacteri

conditions such that the temp. is equal or close to
at least a predetermined time; and (c) isolating
e product from the culture.
process can be used to produce polypeptides or
ns, eg. enzymes, hormones or antigens.
temp. dependent copy no. can be utilised, e.g., i
where the product inhibits bacterial growth; in this
the bacterium is cultured at T_1 until a large stock
s has been produced, after which the temp. is chan
T_2 to maximise the product yield. 30.12.77 as
3 (42pp367)

★ D16 53028B/29 ★EP ---2-967
d safety catalyst system held in metal foil net - for use i
s reactions, pref. between oxygen and hydrogen i
bic microorganism culturing
DID LTD 30.12.77-GB-054354
(11.07.79) B01j-35/02 C01b-05 C12k-01/10
E(CH, DT, FR, GB).

ety catalyst system for use in gaseous reactions,
between oxygen and hydrogen, comprises pelleted
st held loosely in holes and folds of a folded up metal
et inside a container having holes for the inflow and
w of gases.
ef. reaction is carried out in an anaerobic jar contg.
obic micro-organisms for culturing.
e foil net acts as a heat sink and conducts away the
ormed by the reaction on the catalyst pellets thus
nating localised hot-spots. The net cushions the
s preventing them from rubbing together to form an
sive dust. The loose distribution of the pellets
s good gas circulation ensuring a quick and complete
ion.
.78 as 300923.(11pp966).

R: US4027476; US3818667; FR2200944; DT2450664;
38148.

★ D16 53072B/29 ★FR 2405-888
contg. helical segments - for automatic removal of solid matter
ter draining liq. from wine harvest
RETIER & CO SA 14.10.77-FR-031677 (16.12.75-FR-038946)
4 Q35 (15.06.79) B65d-87/24 B65g-65/48 C12b-01/10 C12l-

is an addn. to 75.38946, which described a horizontal
with a circular cross-section; on the inner wall of the
was at least one Archimedean screw; and one end of
ank was fitted with an exit hole near the circular wall
e tank. After draining of a liq., solid matter is left in
ank, which is then rotated so the Archimedean screw
matically drives the solids to the exit hole.
he novelty is that the screw is divided into successive
coidal segments displaced angularly w.r.t. each other
towards the exit hole. The front edge of one segment
. overlaps with the tail end of the next segment in the
. 14.10.77 as 031677 Add to 16.12.75-038946 (7pp1144)

D- ★ D16 53084B/29 ★FR 2405-993
ment of marcs contg. alcohol - comprises drying by conduction,
ensn. of vapour from dryer and distn. of condensate,
mising energy requirements
NGDA UNION NAT 12.10.77-FR-030674
(15.06.79) C12f-03/08
ethod of extracting alcohol froma wet alcohol marc dur
the drying operation consists of carrying out the dry-
by conduction, The alcohol is then contained in the liq.
n the exchanger condesning the emitted vapour.
The cost of energy used in the distn. columns for conce
trating the alcohol is lower than in existing processes
ause the alcohol content is higher. The quantity of
rous gas emitted is smaller and the gas can be easily
ated. The condensn. temp. of the vapour is higher,
owing the use of heat emitted by other units in a distill-
. Handling is simplified as the marc is transferred only
r a single workshop instead of three. 12.10.77 as
674 (5pp1192)

EXPE= D16 50140A/28 #GB 1548-436
Vaccine for equine trichophytosis - consisting of a suspension of trichophyton equinum micro-conidia
EXPER VETERINARY 18.10.76-FR-031296 (19.10.76-GB-043246)
*B04 C03 (18.07.79) *FR2367-496 +A61k-35/70*

A vaccine for prophylaxis of trichophytosis of horses comprises a suspension of microconidia of the immunogeric strain of Trichophyton equinum in a sterile physiological saline soln. having a pH of 6.2-7.0. Pref. the concn. is 30-45 million microconidia is 1 ml. of the sterile saline soln.

The vaccine can be given intramuscularly for prophylaxio in a dose of 1-2 ml. in two injections, at a 10 to 14 day interval. It should be injected only into the third middle part of the neck and the injection site should be first disinfected. The vaccine has proved effective when tried on a large scale (95-98% success). 19.10.76 as 043246(5pp).

SMIK D16 53942X/28 =GB 1548-605
Micro-organism culture making device - including a two compartment container and a specimen carrier providing liquid and solid culture
SMITHKLINE CORP 14.04.75-US-567696
*+P31 R16 (18.07.79) *US3966-552 C12k-01/06*

A device for making a culture of a microorganism includes a container having an open-end sealed by a first seal. A second seal divides the container into a first compartment contg. a liq. culture medium remote from open-end of container and a second compartment adjacent the open-end of the container.

A removable elongate member in the container has a portion extending through the second compartment and into the first compartment and removably engages the second seal means to seal the liq. culture medium in the first compartment. One or more solid culture media is secured to a portion of the member in the second compartment. The device is used e.g. for culturing Trichomonas vaginalis. 6.4.76 as 013892(4pp964).

HELV- D16 81385X/44 =GB 1548-660
Filler prodn from waste matl - for working into natural and artificial resins for forming building materials (NL121076)
HELVISOL AG 08.04.75-DT-515179
*A60 +P41 (A93) (18.07.79) *DT2515-179 B03b-07 C04b-31*

Prodn. of filler materials from household refuse which has been crushed, magnetically freed of Fe particles supplied with water or sewage sludge, and fractionated into a portion of desired particle size, is described.

The portion, which has been continuously fermented with fresh to produce a composts, and a solvent is introduced together with or alternately into a heatable container in a wt. ratio of 3:5-1:4. The compost and solvent are heated and stirred throughout the introduction and the mixt. then returned for 10-16 hrs. The mixt. is then heated, with stirring, to dryness.

The dry prod. is introduced into a 2nd container, mixed with 2-3 wt.% chloroparaffin and 1-3 wt.% Sb_2O_3 and heated to give dry material.

Prod. is used in mfg. articles for building purposes, esp. hydraulic engineering and hydroeconomy. 1.4.76 as 013344(4pp393).

SANY D16 35268A/20 =GB 1548-787
Inactivating microbial toxins and weakening vaccines - by treatment with new tannin from fruit of Diospyros species
SANKYO KK 08.03.77-JA-025309 (08.11.76-JA-133956)
*B04 (18.07.79) *DT2749-961 A61k-39/02 +C07d-309/10*

The inactivation of a innerobial toxin on the atterniation of a vaccine comprises contacting in the toxin, or including in the vaccine, tannin derived from fruit of the genus Diospyros, esp. Diospyros Kaki, lotus or ebenum.

The tannin is pref. condensed, and is obtd by (a)extracting the fruit with water and/or water-miscible organic solvent and removing insolubles, (b) except where an alcoholic solvent is used, concentrating the extract diluting with lower alcohol and removing insolubles, (c) pptg-tannin by addn of a non-solvent and (d) dissolving the tannin in water sterilising the soln. and freeze-drying. 2.11.77 as 045618 (11pp976).

BRPE ★ D16 53117B/29 ★GB 1548-903
Air gap electrode for ammonium ion concn. determn. in aq. soln. - has a glass electrode, reference electrode and single electrolyt. immobilised in a gel
BRITISH PETROLEUM LTD 09.06.75-GB-024610 (09.06.75-GB 024609)
E35 J04 R16 (D15) (18.07.79) G01n-27/46

An air gap electrode has a single electrolyte, pref. an ammonium salt, which is unimobilised in the form of a ge , pref. agar, and comprises a glass electrode in contact with the gel, and a reference electrode, pref. an Ag/AgCl electrode. The electrodes are in electrical contact through the electrolyte in the gel.

The concn. of ammonium ions in aq. soln. is measure by alternately passing samples of a test soln. and a reference soln. both of pH7, to the ammonia-sensitive air-ga electrode, and measuring the potential differences induce . The potential difference of the test soln. is compared with a graph of the potential difference of the reference soln. and its ammonium ion conc. to give the ammonium ion concn. of the test soln.

The electrode can be used to measure the concn. of an ionisable gas in the soln. and/or to measure pH change due to the dissolved gas. It can be used in fermentation processes, effluent monitoring, sewage control and water quality control. The device avoids the prior art problem of maintaining a constant thin film of electrolyte on the glass electrode and limitations of response speed at the lowest concns. 27.5.76 (10pp976).

WAKA ★ D16 53236B/29 ★J5 4070-419
Stable urokinase powder preparation - contains hydroxyethy' starch, dextran and/or nicotinamide
WAKAMOTO PHARM KK 16.11.77-JA-136760
A96 B04 (A11) (06.06.79) A61k-09/14

Stable urokinase powdered preparation contains >1 of hydroxyethylstarch, dextran and nicotinamide. Urokinase having agglutinated blood-dissolving action is useful as remedy for thrombus. The copresence of hydroxyethylstarch and dextran or nicotinamide improves the stability of urokinase.

In an example, dextran-40 100 mg/ml soln. (0.1 ml) and nicotinamide 100 mg/ml soln. (0.1 ml) were added into 6000 units/ml of purified urokinase soln. (1 ml) and resultant mixt. was blended homogeneously and freeze-dried in vial bottle to give a urokinase powdered preparation. 16.11.77 as 136760 (3pp69)

MITN ★ D16 53264B/29 ★J5 4070-49(
Prodn. of Saccharomyces fungi - by cultivation in medium contg. acetic acid and opt. ethanol as main carbon source
MITSUBISHI GAS CHEM IND 12.11.77-JA-136105
(06.06.79) A23k-01 A23l-01/28 C12c-11/08

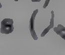
Prepn. of fungi body of yeast comprises culturing acetic acid-assimilating fungi strain of Saccharomyces cerevisiae, Saccharomyces chevalieri, Saccharomyces choleanus, Saccharomyces uvarum, Saccharomyces montanus, Saccharomyces giastadeicus, Saccharomyces italicus, Saccharomyces hyenipiencis, Saccharomyces oleaginosus, Saccharomyces norbencis, Saccharomyces aleaceus or Saccharomyces prostocerodory genus in a culture medium contg. acetic acid and opt. ethanol as main carbon source. 12.11.77 as 136105 (15pp69)

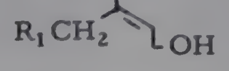
RIKA ★ D16 53265B/29 ★J5 4070-491
Microbial mycelium prodn. - by culturing microorganism of Bacillus genus able to digest ethanol and 2,3-butane diol
RIKAGAKU RES LABS KK 11.11.77-JA-135817
(06.06.79) A23k-01 C12k-03

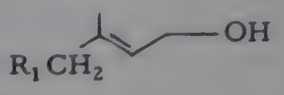
Mycelium (I) is produced by (1) incubation of microbes (II), belonging to Bacilus and capable of digesting ethyl alcohol (III) and 2,3-butane diol (IV) in liq. culture medium contg. (III) and/or (IV) at pH 7.0-12.0 and (2) collection of (I) from the culture medium.

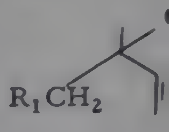
(II) is new. (I) contains a large amount of nitrogen and therefore it can be used as protein-source. (II) found by the inventors was designated as 1-5-1. (II) can digest (III), (IV), isopropyl alcohol, 1,2-propane diol and 1,3-propane diol. The result of incubation of (II) is influenced remarkably by pH of the culture medium and it should be adjusted between the above mentioned range. 11.11.77 as
(5pp42)

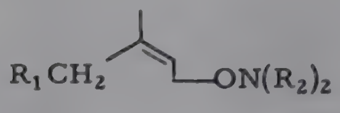
NISC ★ D16 53267B/29 ★J5
Unsatd. alcohol prodn. - by converting terpenyl hydroxyl presence of microorganism or enzyme
NISSAN CHEM IND KK 17.11.77-JA-138351
E17 (06.06.79) C12d-13

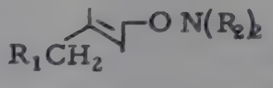
Prodn. of unsatd. alcohols (A) of formulae (I), (II) (III) comprises conversion of terpenyl hydroxylami derivs. (B) of formulae (IV), (V) and (VI) in contac microbial (C) or its enzyme (D). R_1 is ()n and

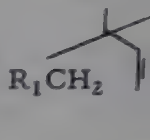

(I)


(II)


(III)


(IV)


(V)


(VI)

Examples of (III) are those belonging to Candida, cillium, Aspergillus, Bacillus and others. (A) are by incubation of (C) in a culture medium contg. (B), source, such as sugars, polyalcohols, organic acid cohols and others, and inorganic salts. The incuba at 20-40°C for 1-5 days. 17.11.77 as 138351 (5pp4

SAKA/ ★ D16 53268B/29 ★J5 4
Pectin prodn. - by treating plant tissue with microorgan genus Trichosporon
SAKAI T 10.11.77-JA-135491
(06.06.79) C12d-13/04

Prodn. of pectin (I) comprises treating tissue of pla one selected from (1) microorganisms (II) belonging Trichosporon and having activity for extn. of (I); (2) incubated culture medium or (3) extract (IV) or (III). contact of plant-tissue with (II), (III) or (IV) is carri at 30-35°C and pH 4-7 for 5-20 hrs.

(I) can be extracted easily without grinding plant and the recovered (I) is of high purity. Examples of are Trichosporon Peniciletum and its mutants. 10. as 135491 (5pp42)

KIKK ★ . D16 53269B/29 ★J5 4
Botrytis-incubated wine prodn. - by incubating Botrytis cin wine juice, adding wine yeast, incubating aerobicall fermenting
KIKKOMAN SHOYU KK 10.11.77-JA-134152
(06.06.79) C12g-01/02

Method of brewing a botrytised wine (I) comprises in ting Botrytis cinerea (II) in wine juice until concn. o erin (III) increases to 15-27 g/l; incubating aerobica after adding wine yeast; stopping the aerobical incub when concn. of glycerin reaches 35 g/l; and subjecti to alcohol fermentation after addn. of conc. wine jui

Conc. of (III) in (I) effects taste of (I). (I) of high content can be produced.

The first incubation is carried out at 10-30°C and 3-6; and the second incubation starts at a (III) concn. g/l or >27 g/l so that concn. of (III) flavour are not aldehyde odours are not increased. 10.11.77 as 134 (4pp42)

TOKU/ ★ D16 53270B/29 ★J5 40
Fermentative prodn. of seasoning - by spraying rice bra water, steaming, fermenting or saccharifying and col supernatant
TOKUDA T 17.11.77-JA-137292
(06.06.79) A23l-01/23 C12g-03/02

Fermentative prodn. of seasoning (I) comprises (1) s ing water on rice bran, (2) steaming, (3) fermenting saccharifying with the addition of saccharifying enzy koji, yeast or microbial used for usual fermentation Japanese liquor (sake) and (4) collecting the supernat such as lysine, serine, glutamic acid, isoleucine, e and phenlalanine, and organic acids, such as lactic acetic acid and succinic acid. 17.11.77 as 137292)

★ D16 53422B/29 ★J5 4071-333
battery with aluminium (alloy) anode - contains ccharide, protein or aminoacid in electrolyte to reduce on of anode
MITOMO CHEMICAL KK 17.11.77-JA-138783
)L03 M26 R47 (07.06.79) H01m-06/06

ry battery has Al or Al alloy as anode, and an electe contg. polysaccharide, protein or aminoacid. Rate rosion of Al (alloy) anode is reduced by adding the ccharide, protein or amino acid to the electrolyte.

polysaccharide is amylose, agar, amylopectin, gum c or glycogen; the protein is actin, amylase, insulin, in or pepsin; the aminoacid is alanine, arginine, aspacid or glutamic acid.

pically, an Al alloy consisting of 3.0 wt.% Zn, 0.13 Zn, 0.001 wt.% Ga, 0.07 wt.% Bi and the balance Al. led and annealed at 400°C for 4 hrs. to form the anode. athode consists of Pt. The electrolyte consists of a % NaCl aq. soln. contg. 2 g/l of agar. 17.11.77 as 3 (3pp86)

★ D16 53701B/29 ★J5 4073-107
ricides comprising protease and cycloserine or ilosone - used eating gout, arthritis, rheumatism collagen disease, shoulder ss, duodenal ulcers etc.
KEDA K 24.11.77-JA-141371
4 (12.06.79) A61k-31/42 A61k-37/54

ericides comprise protease and cycloserine or ilosone. bactericides are useful in treating urinary tract infec- hypertrophy of the prostatic gland, gout, arthritis, olar pyorrhea, duodenal ulcer, liver disorder, hyper: on, Paget's disease, CNS disorder, stiffness of the lder, climacteric disorder, rheumatism or collagen ase.

n an example, protease (10 mg x 3) and ilosone (300 3) were administered to a patient with hypertrophy of prostatic gland after meal. The patient did not comp- of crick in the back after receiving the drug. After days, itching in the urinary tract and oppressive sen- ons in the urination were improved. After one week, symptoms had completely disappeared. 24.11.77 as 71 (3pp33)

★ D16 53721B/29 ★J5 4073-182
microbial enzyme prepd. by culturing Bacillus bacteria - used as preservative, plant protecting fungicide etc.
MITSUI PETROCHEM IND KK 22.11.77-JA-139423
03 (D13 D22) (12.06.79) C12d-13/10 C12k-01

pn. of a compsn. contg. microbe-lytic enzyme (i.e. an me that can dissolve microbial body) comprises cultur- a bacteria of Bacillus which can produce β-1,3-glucan- , protease and lysozyme-like bacteriolytic enzyme and overing the enzymic compsn. composed mainly of β-1,3- anase, protease and lysozyme-like bacteriolytic enzyme n the cultured prod.

The compsn. shows wide microbe-lytic spectrum and ex- ent microbe-lytic activity and can be used as the anti- ic for the use of preservative for foods, fungicide for t disease germs, etc.

Pref. Bacillus circulans MT 2005 (FERM-P 4289) and 2006 (FERM-P 4290) can be used and the culture is cted at 25-32°C at pH 5-7 for 24-48 hrs. in a medium pd. by adding nonionic surfactant and/or protease inhi- or in the culture medium containing the sugar except glu- e as the carbon source. The compsn. usually contains ,3-glucanase 60-80 w/w%, protease 20-30 w/w% and ozyme-like bacteriolytic enzyme 2-10 w/w%. 22.11.77 139423 (7pp5)

A ★ D16 53722B/29 ★J5 4073-183
oxyribonucleic acid joining enzyme - obtd. by culturing bacteria genus Bacillus
RIKAGAKU RES LABS KK 22.11.77-JA-140442
B04 (12.06.79) C12d-13/10

is claimed which can form phospho-diester bond by joining the end 3'-OH group at the cut part of a chain in the DNA molecule having two chains with the adjacent 5'-p end group. Method comprises culturing the bacteria of Bacillus which can produce the enzyme until the beginning of the stable phase and refining thus obtained bacterial body by employing (a) treatment with lysozyme, (b) crushing with ultrasonic wave, (c) fractionation through pptn. with ammonium sulphate, (d) treatment with Streptomycin, (e) gel filtration, (f) DNA-cellulose chromatography and (g) the ion exchanging cellulose column chromatography and (g) the ion exchanging cellulose column chromatography by ammonium sulphate elution, singly or together. Suitable bacteria are B. subtilis IAM 1522 and B. amyloliquefacients ATCC 2350. 22.11.77 as 140442 (6pp5)

SNOW ★ D16 53723B/29 ★J5 4073-184
Fixed complex membrane prodn. - by permeating first and second enzyme solns. in turn through membrane from porous support side to active layer side
SNOW BRAND MILK PRODUCTS 19.11.77-JA-138427
B04 (12.06.79) C07g-07/02

Enzymes are fixed in a porous supporting layer of an asymmetric selective permeating membrane in layers orderly. Process comprises first permeating the first enzyme soln. through the membrane from the porous supporting layer side to the active layer side, and similarly permeating the second and opt. other enzyme soln.(s) through the membrane.

Using the membrane enzymic reactions can be easily effected. When the final prod. has a much smaller mol. wt. than the substrate, the final prod. can be obtd. as the filtrate. 19.11.77 as 138427 (4pp5)

AGEN ★ D16 53724B/29 ★J5 4073-186
Preserving beta-amylase obtd. from Bacillus microorganisms - using salt(s) of cobalt, manganese zinc and/or nickel
AGENCY OF IND SCI TECH 22.11.77-JA-140930
B04 (12.06.79) C07g-07/02 C12d-13/10

Pref. water-soluble salts of the metals are used, e.g. sulphides and chlorides. The amount of the salts used is 10^{-3} - 10^{-1} mol/l. The Co salt may be used in a relatively low conc. and the Mn salt in a higher concn.

The β-amylase can be stably preserved for a long period without lowering its activity. 22.11.77 as 140930 (3pp42)

AGEN ★ D16 53725B/29 ★J5 4073-187
Purificn. of beta-amylase from Bacillus microorganism - by adsorption on aluminium oxide followed by extn. with citrate soln.
AGENCY OF IND SCI TECH 22.11.77-JA-140931
B04 (12.06.79) C07g-07/02 C12d-13/10

Purificn. of β-amylase (I) produced by Bacillus microbe (II), comprises (1) adsorption of (I) with aluminium oxide (III) and then (2) extn. of (i) from (III) with citrate (IV)-soln.

(III) is natural zeolite, synthetic zeolite or compsns. composed of (III) and opt. components such as Si oxide, Na oxide, Mg oxide, etc. (I) should be adsorbed with (III) at pH 4-8 e.g. (5-8). The amt. of (I) adsorbed is altered by particle dia. of (III) and about 10,000 units of (I) can be adsorbed to 1 g of (III) of 100-200 mesh. (IV) is water-soluble salt, such as Na or K citrate and the conc. of (IV) is 0.01-0.05 M. 22.11.77 as 140931 (3pp42)

AJIN ★ D16 53726B/29 ★J5 4073-189
4-formyl-2-acetylamino-butyric acid prodn. - by culture of Brevibacterium or Corynebacterium, used as intermediate to tryptophan
AJINOMOTO KK 24.11.77-JA-141029
B05 E16 (12.06.79) C12d-13/06

Prodn. of 4-formyl-2-acetylamino-butyric acid (I), comprises (1) culturing the microbial (II), belonging to Brevibacterium or Corynebacterium and having the ability of (I)-prodn., in a culture medium (III) and (2) collecting (I) from (III). (I) is a raw material for synthesis of triptophan.

As (II), Brevibacterium flavum AJ 11202 (FERM-P 427-81), B. lactofermentum ATCC 14020, Corynebacterium glutamicum AJ11203 (FERM-P 4279), C, acetoacid phyrum ATCC 13870, etc. are used. In (III), carbon source, such as glucose, sucrose, molasses, starch-decomposed product

product, low. mol. alcohols, organic acid, etc. N source, such as ammonium salts, ammonia water urea, etc. and inorganic salts, such as magnesium, iron potassium, phosphur, etc. are added. Sodium bisulphite is pref. added to (III), because it prevents decomposition of (I). (II) is cultured at 27-40° C and pH 5-8 for 1-7 days. (I) accumulated in (III) is collected by treatment with an ion exchange resin. 24.11.77 as 141029 (3pp42)

BANY ★ D16 53727B/29 ★J5 4073-190

Immunostimulant forphenicine prepn. - by culturing a Streptomyces microorganism in medium contg. phenyl:glycine, phenylalanine and/or tyrosine

BANYU PHARM CO LTD 25.11.77-JA-140774

B04 (12.06.79) C12d-09/14 C12d-13/06

Process comprises culturing a forphenicine-producing Streptomyces organism in a culture medium contg. $\geqslant 1$ amino acid selected from phenylglycine, phenylalanine and tyrosine.

Forphenicine is an alkaliphosphatase inhibitor isolated from culture of Streptomyces recifensis MD 148-C1 or Actinomyces fulvoviridis var. acarbodicus MC 974-A5 and is useful as immunostimulant (J50116685). The invention attains 3-20 fold higher yield than that of J50116685, by the addn. of the aminoacid(s) to the medium. 25.11.77 as 140774 (4pp38)

MITU ★ D16 53728B/29 ★J5 4073-191

Microbiological prodn. of androstane derivs. - by culturing a mutant of arthrobacter using sterol as substrate

MITSUBISHI CHEM IND KK 24.11.77-JA-140925

B01 (12.06.79) C12d-13

Microbiological prodn. of androstane derivs. (I) comprises culturing a mutant (II) of Arthrobacter, using sterol (III) as substrate. By-prods. are not formed and therefore purification of the prod. is easy.

As (III), sterol, such as cholesterol, stigma sterol, ergosterol, etc. and oxidised sterol, such as cholest-4-ene-3-one, cholesta-1,4-diene-3-one, cholesta-4,22-diene-3-one, etc. are used. The activity of (II) for decomposition of (I) is inactivated or lowered, and examples of (II) are Arthobacter simplex MCI-0803 and MCI-0804.

(I) are androsta-1,4-diene-3,17-dione, 17β-hydroxy-androsa-1,4-diene-3-one, androsta-4-ene,3,17-dione and 3β-hydroxy androsta-5-ene-17-one. In the culture medium, $>$ 0.1 (0.1-10) wt.% of glyceride and, if necessary, 1-15 wt.% of vegetable oil cake should be added. Antioxidant may be added to the culture medium. (II) is cultured at 20-40° C and pH 5-9 (6-8). 24.11.77 as 140925 (11pp42)

TAKE ★ D16 53729B/29 ★J5 4073-195

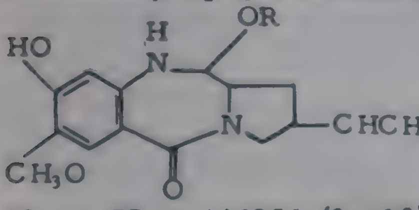
Tomaymycin prepn. by Nocardia species culture - giving prod. with antibiotic and anti:phagic activities

TAKEDA CHEMICAL IND KK 22.11.77-JA-140253

B02 (12.06.79) C12d-13

Prepn. of tomaymycins comprises culturing tomaymycin-producing microorganism belonging to Nocardia in a medium and recovering accumulated tomaymycins.

Antibiotic tomaymycins (I) have antibacterial and antiphagic activities, and are useful as disinfectant for cage, laboratory equipment and hands.



(I)

where R = H or 1-5C alkyl, (R = CH_3 tomaymycin).

22.11.77 as 140253 (8pp38).

NISS ★ D16 53731B/29 ★J5 4073-197

Raw material for prodn. of koji - comprises two types of starch of different gelatinisation degree and mesh size

NISSHIN FLOUR MILL KK 18.11.77-JA-137912

(12.06.79) A23l-01/23 C12g-03/02

Raw material for prodn. of koji, contains 30-70 wt.% of starch of gelatinisation degree $>$ 85% and 8-30 mesh and 70-30 wt.% of starch of gelatinisation degree 20-50% and below 16 meshes. The yield of koji is high and cost of production is low in the present method.

Starch of gelatinisation degree $>$ 85% is produced continuously in expanding extruder in conditions of 20-5 essure $>$ 20 Kg/cm^2 and temp. 120-150°C. Starch gelatinisation degree 20-50% is produced by pellet r 18.11.77 as 137912 (7pp42)

AZUM- ★ D16 53732B/29 ★J5 4

Liquor prodn. - by removing anionic cpds., esp. phosphoru from liquefied cereal starch and fermenting

AZUMA-BISHI SHUZO 22.11.77-JA-139407

(12.06.79) C12c-05/02 C12g-03/02

Prodn. of liquor (I) comprises removal of anionic cc ents, esp. phosphorus cpd. from liquefied cereal st (II) and fermentation of the liquefied starch for gene of alcohol. Anionic components are removed by con (II) with basic anion exchange resin, such as Amber IRA-410, Diaion SA 20A, SA21A, Duolite.A-40, A-4 etc.

(I) is beneficial to health and is produced without taste and flavour of the original liquor.

In an example, 1 t of rice bran and 3 Kl of warm were mixed and liquefied with 100 g of liquefying enz and 1 Kg of saccharifying enzyme, to obtain liquefied rch. After filtration, removal of protein by adjustin 5.0 and filtering with the addn. of active carbon and val of iron by chelating resin-treatment, it was treat with strong basic anion exchange resin. pH of ash of treated liquefied starch was 14.6. 22.11.77 as 1394 (3pp42)

NAKA/ ★ D16 53733B/29 ★J5 40

Citrus fruit liqueur prodn. - by adding fermented alcohol to juice, adding an enzyme and collecting supernatant

NAKANO S 24.11.77-JA-141043

(12.06.79) C12c-03/04

The liquer (I) is prepd. by adding 15-30 wt.% ferment alcohol of alcohol content $>$ 95%, to citrus juice prep pressing whole fruits, (2) adding an enzyme (II) to the mixt. and (3) collecting the supernatant after settling at warm temp.

(I) can be produced in a short period of time (15 da Essential oils, hesperidine, vitamins, minerals, pec fructose, etc. are contained in (I), these being benefic to health. E.g. hesperidine has the same effect as vi P and the oils prevent adhesion of cholesterol on the s ce of blood vessels.

Pref. (II) is pectinase, hemicellulase, lipase, cell proteinase, or lysozyme, in a concn. of 0.01%, and t mixt. of alcohol and citrus juice is allowed to stand at for 10 days. 24.11.77 as 141043 (2pp42)

SANO D16 78447R/42 =J7 901

Ergot alkaloids

SANDOZ AG 02.09.69-CH-013262 (18.04.69-CH-005895)

*B02 (22.06.79) *BE-749-072*

NIPN ★ D16 53806B/29 ★J7 9016

Storage stable antigen coating sample prepn. - from suspension Treponema strain and bovine serum albumin, for use in syp serum reaction test

NIPPON TOKETSU KANS 15.02.68-JA-009119

B04 P31 (23.06.79) A61b-10

Prodn. of Nicholus antigen coating sample that may be stored for a long period comprises suspending Trepone pallidium (Nicholus strain) in phosphoric acid buffer, adding bovine serum albumin diluted with phosphoric a buffer to the suspension to prepare treponema fungi liq coating the fungi liquor over a slide glass, drying the ed glass in air to fix the fungi, placing the fixed fungi d ctly with drying agent into a case that is proof against moisture absorption, and closing the case tightly or en -ing it in vacuo.

Prod. is useful in syphilis serum reaction tests. 15.2.68 as 009119 A61b-10/00 (23.6.79) NIHON TOHKETSU KANSOH KENKYUSHO KK (5pp69)

PFIZ D16 11088T/07 =J7 9016

Antibiotic cp-21635 - by cultivation of streptomyces oliveus s hutter atcc 21542

PFIZER INC 07.08.70-US-061920

*B04 (23.06.79) *BE-770-805 + A61k-35/74 C12d-09/14*

of the novel antibiotics substance CP-21635 by
ting the micro-organism Streptomyces olivaceus
Hutter under submerged aerobic conditions in a
ve aq. medium contg. a glucide source, and an
c nitrogen source and mineral salts until the med-
ows significant antinucrobial activity. The anti-
s partic. active against resistant strains of staphy-
us aureus.
rces of glucides include sugars, starch glycerol and
ses; the nitrogen source can be casein, soya flour,
lour, wheat gluten and the mineral source can be
KCl, potassium phosphate, $MgSO_4$ acid trace min-
2.8.71 as 057589 (clg. 7 8.70-US-061920) C12d-
A61k-35/74 (23.6.79) PFIZER INC. (7pp) (J47005290)

★ D16 53810B/29 ★J7 9016-596

g shochu to improve flavour and colour - by adding parched
aturing, filtering and treating with activated charcoal
A T 18.05.76-JA-056060
3.06.79) C12g-03/04

d comprises parching rice in rotary drum at ca. 80° C
in. adding 300-400g of the parched rice to 1800l of
(alcohol content of 35%), maturing it in a sealed
t 20-35° C for 15 to 30 days, filtering and treating
ochu with active charcoal.
e parched rice gives excellent flavour and attractive
to shochu. 18.5.76 as 056060 C12g-3/04; C12g-
23.6.79) YODA, T. (2pp83) (J5 2139795)

D16 84470R/45 =J7 9016-922

on of cephalosporin c
A GEIGY AG 13.05.69-CH-007286
*B02 (A12 A91) (26.06.79) *BE-750-292*

★ D16 53838B/29 ★J7 9017-025

ic Glaucoma sintillans cultivation - using Escherichia coli or
bacter of Serratia microorganism
TSUBISHI CHEM IND KK 22.03.73-JA-032831
27.06.79) A23k-01 C12k-01 C12k-03

bic Galucoma sintillans is cultivated together with
erichia coli or microorganism belonging to the genus
obacter or Serratia and Glaucoma sintillans is re-
red. Effective cultivation is possible 22.3.73 as
1 C12k-1/00; 3/00; A23k-1/00 (27.6.79) MITSUBISHI
IND. KK (4pp22) (J4 9117666)

D16 24211W/15 =J7 9017-026

sing growth rate of yeast culture - by addn. of carnitine, its
rsors or derivs to medium
NEGAFUCHI CHEM KK (KANE) 23.10.74-JA-122763
*4 (27.06.79) *BE-822-067 C12c-11/08 C12d-13/06*

o-organism belonging to one of the genera Saccharo-
s, Pichia, Saccharamycopsis, Rhodotorula, Candida,
lopsis or Trichosporon is cultivated under aerobic
tions in a nutrient medium which can be assimilated
e micro-organism and contains carnitine, one of its
ursors or derivs. Suitable micro-organisms are Sacc-
myces cerevisiae or rouxii, Pichia farinosa or mem-
aefaciens; Saccharomycopsis lipolytica; Rhodotorula
a; Candida novellus, tropicalis, lipolytica, arborea,
emondii or rugosa. etc.
he nutrient medium pref. contains a C source e.g.
rs, oils, fats, alcohols, org. acids or hydrocarbons.
ble precursors of carnitine are crotono- and butyro-
ine and suitable derivs. are acetyl-propionyl-, butyryl
itoyl- and stearoyl- carnitine. The speed of cell
vth is increased, thus shortening the process time,
easing the yield and avoiding the danger of contamina-
. 23.10.74 as 122763 C12c-11/08; C12d-13/06 (27.6.79)
EGAFUCHI CHEM. IND. LTD (6pp) (J5 1048480)

M D16 82010X/44 =J7 9017-027

le enzyme compsns contg catalase and uricase - and stabilised
nonionic surfactant, for determn of uric acid etc
OYO SPINNING KK 00.00.76-JA-010727 (21.10.71-JA-083768)
*04 J04 (27.06.79) *J51104-087 +C07g-07/02 C12d-13/10*

le enzyme compositions contg. catalase and uricase,
prepd. by adding 0.001-0.1 w/w% of a nonionic sur-
ant to the mixed solution of uricase and catalase. Uri-
e originating from yeasts and catalase originating
from animals are partic. favourable. The addn. of small amts. of nonionic surfactant gives protects enzymic proteins in the mixed soln. of uricase and catalase and can maintain the activity of those enzymes even under severe conditions.

The enzyme compsns. are used for the determination of uric acid, etc. For example, uric acid is converted to hydrogen peroxide in the presence of uricase and the formed hydrogen peroxide is reacted with methanol in the presence of catalase to form formaldehyde. The formaldehyde is determined and from the value, the amt.of original uric acid can be calculated. 21.10.71 as 010727 C07g-7/02; C12d-13/10 (27.6.79) TOYO SPINNING KK (5pp) (J5 1104087)

FUJI D16 16132U/12 =J7 9017-028

Antibiotic fr-1923 - with antimicrobial activity esp against gram negative bacteria
FUJISAWA PHARM IND KK 31.08.71-JA-067312
*B04 (27.06.79) *DT2242-699 C12d-09/14 +A61k-31/39 C07d-205/08*

Antibiotic FR-1923, an amphoteric crystalline material soln. in NH_3 pyridine, NaOH and DMSO, soln. in water and MeOH and insol. in $CHCl_3$, EtAc and ethyl ether, having elementary analysis C 54.31, H 4.90 S 10.71, and decomposes at 214-216° C, is active against microorganisms partic. Gram-negative bacteria (e.g. Proteus and Pseudomonas spp.) and is obtd. by cultivating an FR-1923 producing strain of Nocardia uniformis (pref. var. tsuyamanensis ATCC 21806) under aerobic conditions in a culture medium contg. assimilable sources for C, N and inorg. salts (pref. at 20-40° C, for 30-50 hrs.) until a substantial antimicrobial activity is generated in the medium by the organisms. The antibiotic may be subsequently recovered from the culture medium (opt. in the form of an alkali metal salt) and purified. 31.8.71 as 067312 C12d-9/14; A61k-31/395; C07d-205/08 (27.6.79) FUJISAWA PHARMACEUTICALS CO. LTD. (9pp) (J4 8033094)

MEIJ D16 71797V/41 =J7 9017-029

Cephalosporanic acid derivs prepn - by culturing from corresp. esters using an animal intestine or tissue enzyme
MEIJI CONFECTIONARY 20.10.72-JA-104406
*B02 (27.06.79) *J49062-693 +C12d-09/04*

7-Acylamido-3-methyl-3-cephem-4-carbonic acid and 7-amino-3-methyl-3-cephem-4-carbonic acid were produced from ester of 7-acylamido-3-methyl-3-cephem-4-carbonic acid by culturing with an animal intestine or tissue, slices of homogenates, crude ext., dried matter, or purified enzyme prepn. of the animal intestine or tissue.

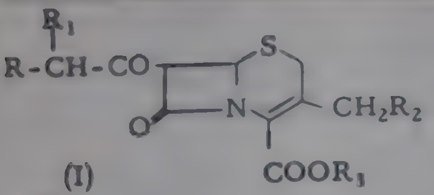
In an example, slices of fresh rat liver (10g) was washed with 0.85% NaCl, homogenised in 40 ml. of 1.15% KCl and filtered with cheese cloth; 50 ml. of homogenates were obtained. A mixt. of 4 ml. 0.2M phosphate buffer (pH 7.0) 1 ml. of the rat liver homogenate, 2.5mg 2-chloroethanol ester of 7-phenylacetoamido-3-methyl-3-cephem-4-carbonic acid (I) was reacted with shaking at 37° for 3 hr.

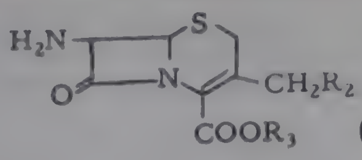
Untreated cpd. was extd. with EtOAc at pH 7.0 from the supernatant liq. and I (1.1mg) was extd. with EtOAc from the H_2O-layer at pH 2.0. I was purified by chromatography on DEAE-Sephadex A-25 eluting with 0.01 M Tris buffer contg. 0.1 M NaCl. Active fractions were extd with EtOaC at pH 2.0 and conc. under the reduced pressure; 0.9mg crystalline substance was obtained. 20.10.72 as 104406 C12d-9/04 (27.6.79) MEIJI CONFECTIONARY CO. (5pp) (J4 9062693)

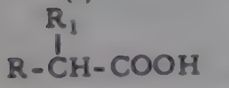
TAKE D16 29024V/16 =J7 9017-030

Cephalosporins prepn from 7-ACA derivs - by acylation in presence of eschericha, bacillus, proteus or pseudomonas enzyme
TAKEDA CHEMICAL IND KK 06.12.72-JA-122205
*B02 (27.06.79) *BE-808-288 C07d-501*

Cpds. (I) are prepd. from derivs. of acids (II) and (III).


(I)


(III)


$R-\overset{R_1}{\overset{|}{C}}H-COOH$ (II)

(where R is an unsatd. 6-membered carbocyclic ring or an unsatd. 5-membered heterocyclic ring; R_1 is H or a substit. esp. OH or halogen; R_2 is H or an org. gp. linked via O.NaS; pref. 6-(3-methoxypyridazinyl-1-oxide) thio- or 6-(3-methyl-pyridazinyl-1-oxide)-thio and $COOR_3$ is a gp. easily converted to COOH, pref. R_3 is Me). 6.12.72 as 122205 C07d-501/00 (27.6.79) TAKEDA CHEM.IND;LTD (15pp) (J4 9080292)

TAKE D16 00937W/01 =J7 9017-03

Deacetoxycephalosporin C - antibiotic and intermediate from fermentation cultures

TAKEDA CHEMICAL IND KK 16.06.73-JA-068106

*B02 (27.06.79) *NL7408-018 +C12d-09/04 C12d-13*

Title cpd. (I) is obtd. by incubating Streptomyces species, pref. S. grisens U-25 (IFO 13550) or S. hygroscopicus U-442 (IFO-13598), Cephalosporium species, pref. ATCC 14553, C. acremonium K-186 (IFO-9918), or C. polyaleurum 7-64 (IFO-9920). Emericellopsis species, pref. K-1(3 (IFO 9922), Paecilomyces species, pref. P. carneus C-2237 (IFO-9729), C-4053 (IFO-9730), or P. persicinus C-3009 (IFO-9731), Anixiopsis species, pref. A. peruvian CBS-30167 or K21 (IFO-9916), Arachnomyces species. pref A. minimus CBS-324.70 or K-154 (IFO-9917), or spiroidium species, pref. S. fuscum (IFO-5479) or K-461 (IFO-9923), at 18-40° and pH 2-10, in a suitable medium contg C, N and inorganic salts and (I) promoting additives e.g. methionine, cysteine and/or cystine etc. as appropriate. The product is isolated chromatographically from the filtered broth. 16.6.73 as 068106 C12d-9/04; 13/00 (27.6.79) TAKEDA CHEMICAL IND. LTD. (6pp) (J5 0018692)

AJIN D16 04282W/03 =J7 9017-03

Guanosine fermentation production - using adenine-requiring bacillus mutants resistant to sulpha drugs, methionine, methionine anologues or azaserine

AJINOMOTO KK 14.06.73-JA-067276

*E13 (27.06.79) *DT2428-548 C12d-13/06*

Guanosine (used as a starting material for the seasoning agent sodium guanosine 5'-monophosphate) is produced in improved yields by cultivating a guanosine-forming, adenine-requiring mutant of the genus Bacillus which is resistant to sulpha drugs, methionine, methionine analogues and /or azaserine under aerobic conditions in an aq. culture medium until guanosine is accumulated in the medium and recovering the guanosine from the medium.

Suitable Bacillus mutants are obtd. by subjecting a suitable parent strain to mutagenic doses of ionising radiation or chemical gents and isolating the desired mutants by appropriate screening procedures. The mutants used are pref. also resistant to 8-azaguanine. 14.6.73 as 067276 C12d-13/06 (27.6.79) AJINOMOTO CO. INC. (4pp) (J5 0013589)

AJIN D16 06257X/04 =J7 9017-034

Guanosine monophosphate prodn. - by culturing Bacillus in inosine or hypoxanthine media

AJINOMOTO KK 27.00.74-JA-002634

*B02 (27.06.79) *J50095-488 +C12d-13*

GMP is produced by culturing Bacillus in media contg. inosine or hypoxanthine.

In an example, B. subtilis AJ 3669 was cultured aerobically at 30° for 72 hr. in a medium contg. glucose 8, KH_2PO_4 0.5, $MgSO_4$ 0.2, $(NH_4)_2HPO_4$ 0.5, RNA 0.12m hypoxanthine 0.5, $CaCO_3$ 5g/dl. Fe^{2+} and Mn^{2+} 2 ppm. each and soybean protein hydrolysate 4 ml)dl. The culture was filtered and the filtrate was worked up to obtain cryst. Na GMP 0.82g. 27.12.73 as 002634 C12d-13/00 (27.6.79) AJINOMOTO KK (2pp) (J5 0095488)

NAKA- ★ D16 53841B/29 ★J7

**Preparation of vinegar - by cultivating microorganism o
feedstock**

NAKANO SUMISE KK 19.06.75-JA-073655

(D13) (27.06.79) C12j-01/04

Alcohol-containing starting material for preparati
vinegar and microorganism for preparation of vine
introduced in a cultivation vessel together with oxy
or air to mix them rapidly together using a static
machine. 19.6.75 as 073655 C12j-1/04 (27.6.79)
NAKANO SUMISE KK (6pp22) (J5 1151399)

NAKA- ★ D16 53842B/29 ★J7

**Continuous prodn. of vinegar - the used microorganism lay
surface being stirred before addn. of alcohol-contg. materi**

NAKANOSUTEN KK 08.07.75-JA-083198

(D13) (27.06.79) C12j-01/04

In to a vessel equipped with stirrer and cover havi
projections together with inlet and outlet, are intr
starting materials for vinegar, so that there is for
layer of the used microorganism on the surface, fo
by gentle stirring; and then alcohol-contg. starting
material is added.

The resultant vinegar is continuously taken out f
the outlet. 8.7.75 as 083198 C12j-1/04 (27.6.79)
NAKANOSUTEN KK (5pp22) (J52007498)

BERE- ★ D16 B/29 ★RU

Acetic fermentation process - using procaine as biostimulat

FAB BERE SI SPIRT 29.03.74-RU-078228

(15.06.78) C12c-09

NICO- ★ D16 B/29 ★RU

Cell culture growth on solid substrate

SS NICOLAU INST 03.12.73-RU-076865

(30.10.78) C12k-01

BIOS= ★ D16 53870B/29 ★SU

**Purificn. of yeasts grown in petroleum fractions - by treati
biomass with ozonised air to improve residual hydrocarbon**

BIOSYNTH ALBUMIN 09.07.66-SU-089531

H04 (27.10.77) C12c-11/26

Removal of residual hydrocarbons from the biomas
uced by cultivating micro-organisms, such as yeas
fractions of petroleum is carried out by treatment
ozonised air.

The method is simpler than the methods used fo
purpose heretofore, and higher degree of purificn.
achieved.

Klimova Z.K., Belenkii S.I., Chepigo S.V. et al.
39/25.10.77 9.7.66 as 089531 (2pp70)

INSM ★ D16 53942B/29 ★SU -

**Crosslinked methacrylic acid-tri:acryl hexa:hydro-
copolymer - prepd. in suspension in polysiloxane fluid,
cation-exchange resin with high capacity for proteins and en**

MACROMOLECULAR CPDS INST 25.06.74-SU-037219

A91 B04 (A14 A26) (30.01.79) C08f-15/14

A carboxylic cross-linked cation-exchange resin (I)
prepd. in the following 3 stages: (1) an unsatd. carb
acid, e.g. methacrylic acid, is copolymerised with
5-triacrylyl-hexanhydrotriazine (15% of total qt. of
omers) with ammonium persulphate/$NaHSO_3$ initiato
system in 5-15% AcOH under argon; a pre-polymer
is formed in 5 mins. (2) the polymer soln. is disper
in silicone fluid by stirring (3) polymerisation is co
ed by stirring under argon for 1 hr. at 80-90°C.

A granular prod. is obtd. in 91% yield by cooling
washing with ether, MeOH, water, 0.5N NaOH, N H
water MeOH and ether. It has particle dia. 100-200
microns and Na ion capacity 10 meq/g. Its swelling
in water in the H-form is 3.5 and in buffer at pH 6.
4.0. The (I) absorbs various proteins and enzymes
wts. e.g. 28000 to 66000) to the extent of 60-300 mg
of resin, with a reversibility of 93.5-100%
Kuznetsova N.N., Samsonov G.V., Papukova K.P.
et al. Bul. 4/ 30.1.79 25.6.74 as 037219 (2pp1360

★ D16 53968B/29 ★SU -618-958

phylococcus culture anatoxin prodn. - includes treatment of medium with zinc and sodium chloride(s), elution, gel n and formalin and lysine addn.

VACCINE SERUM 14.03.77-SU 462395

(18.03.79) C12d-07

lococcus anatoxin is produced by cultivating a toxin cer is a nutrient medium; sepg. the toxin-contg. liq. ring the toxin harmless by treatment with formalin; fecting adsorption of the product on an aluminium kide gel.

e activity of the anatoxin is increased by treating the e lid., before the formalin treatment, with NaCl nCl_2; eluting the resulting ppte. with a soln. of PO_4; and filtering the eluate through Sephadex gel).

e formalin treatment is pref. carried out with a 0.05 formalin soln. in presence of 0.0125M of L-lysine.

Efimova, N.P, Kameneva, M.A ikolaecia, A.M. Bul. 10/15.3.79 14.3.77 as 462395 0)

D16 26723X/15 =SU -625-622

ntation of substrates - in continuously circulating systems

OVANOLA FRERES SA 19.09.74-CH-012706

01.09.78) *DT2539-453 C12b-01/10

ersion of a liq. microbiological substrate flowing gh a guide system, by allowing the substrate to flow gh a section of this system, the cross section of whi- ternately decreases and increases so that the sub- e pressure alternately decreased and increases. It and that, partic. for aerobic fermentation reactions, ate of reaction is increased by the alternating press- changes.

r P., Bul. 35/25.9.78 15.9.78 15.9.75 as 170906

D16 11403V/07 =SU -625-623

mycoplasma vaccine for protection of domestic animals - st mycoplasmosis diseases

ASATO RES INST 05.10.72-JA-100028

4 C03 (01.09.78) *BE-805-570 A61k-39 C12k-05

nals, esp. livestock and poultry, are immunised nst respiratory diseases caused by Mycoplasma, by nistering a killed Mycoplasma vaccine by spraying or tion into the trachea. The vaccine is produced by vating Mycoplasma cells, e.g. M. gallisepticum, M. viae, M. sulpneumoniae or M. mycoides var. capri, suitable medium, killing the cells by heating, chemi- agents or by ultrasonics and suspending them in a iologically acceptable aq. medium at pH 6.0-7.8.

n agent which stabilises the suspension e.g. gelation, be added, and the suspension may be homogenised by ultrasonics.

hikawa M., Hayatsu E., Bul. 35/ 25.9.78 28.9.73 66657 (10pp)

= ★ D16 54026B/29 ★SU -625-747

idge filter for continuous sepn. of microbiological suspensions - cleaning attachments in form of perforated cones with nozzle- ed holes

ICROBIOL VIRUSOLOG 05.04.76-SU-343336

(14.08.78) B01d-27/12

tridge filter can be used for the continuous sepn. of pensions in the micro-biological industry, e.g. during collection of blue-green algae in equatorial fresh-wat- reservoirs, with the intention of studying their utilisat- in hydrolysis-yeast factories as nutritional media for aining yeast and complex-amines. The filter compris- a vertical cylindrical body, cylindrical filter screen xially installed down the axis of the body, a drive dis- ed above the body, a rod with cleaning attachments tened to it down the centre of the body, connected to drive, and pipes to admit and withdraw the liquid. The aning of the filter screen is improved, to prevent it be- ming damaged during the filtration, by making the clean- attachments as perforated cones with nozzle-shaped les directed towards the filter screen. To create a h-velocity delivery of liquid through the holes, the

Semenov V.F., Moroz L.V., Satanovskii E.Yu. Bul. 36/ 30.9.78 5.4.76 as 343336 (2pp29)

MOVA= ★ D16 54216B/29 ★SU -626-117

Microbial toxin micro-biosynthesis - using specified clostridium perfringens strain inoculum culturing, to increase yield and activity

MOSC VACCINE SERUM 26.01.77-SU-447649

(22.08.78) C12d-07

Microbial toxin prodn. includes culturing Clostridium perfringens strain inoculum and using for innoculation of culture medium for biosynthes of toxin.

The yield of toxin is increased and the culturing is simplified if the inoculum is grown 2.5-3.5 hr. prior to inoculation of main growth medium. The inoculum selected for the introduction into the toxin prodn. culture medium has: (1) microbial cells specific growth rate 0.7-0.8 l/hrs. (2) toxinogenic characteristics of toxin specific increase rate 450-550 Dlm/ billion pts. (3) specific antigenic characteristics of toxin increase rate 7.0-9.0 L+/billion pts.

Basnakyan I.A., Lobanova A.N., Gruntovich V.S. Bul. 36/30.9.78 26.1.77 as 447649 (3pp938)

ASBI= ★ D16 54217B/29 ★SU -626-118

Microbial cell breakdown for use in research, food, drugs etc. mfr. - in hypotonic or isotonic soln. pulsated through ultra-microporous bed of cellular glass granules carrying immobilised cellulolytic enzymes

AS USSR BIOCHEM PHY 19.07.76-SU-391538

(25.09.78) C12d-13/10

Cells of microorganism can be split (disintegrated, or sphero- or proto-plasticised) by enzymatic action of celluldetic enzymes immobilised on a solid support.

The process can be rendered more effective, and its control can be facilitated, by suspending the cells in a hypotomic salt soln. (for disintegration) or a stabilised isotonic salt soln. (for sphero- or proto-plasticisation) and passing the suspension in a continuous pulsating stream through an ultramicroporous bed contg. enzyme-carrying granules (e.g. 60-300 µ glass granules) having cellular structure (0.5-10u open cells). This method can be used in medicine (e.g. prepn. of vaccines) or in fermentations industry.

Gurevich G.A., Fikhte B.A., Ushakov V.M. et al. Bul. 36/30.9.78 19.7.76 as 391538 (2pp70)

FERM= ★ D16 54218B/29 ★SU -626-119

Purificn. of water-alcohol mixts. in vodka mfr. - includes clarification with activated carbon and two/stage filtration through sandy material and fibrous material

FERMENT PRODUCT RES 10.03.77-SU-461736

(25.09.78) C12h-01/04

The purificn. is rendered more effective by first removing the coarse fraction of the activated carbon, and then performing the filtration in two stages at a speed of 2-3 m/h.

In the first stage, the sandy material is electrocorundum (particle size 300-400 u) and in the second stage a mixt. of the sandy material with a fibrous material (e.g. asbestos) or a fibrous material alone is used. The coarse fraction of the activated carbon is cleaned and recycled.

Voskanyan R.A., Yarovenko V.I., Ustinnikov B.A. et al. Bul. 36/ 30.9.78 10.3.77 as 461736 (2pp70)

BECI D16 59735Y/34 =US 4159-923

Analysis of alpha and beta amylase in body fluids - involves formation rate determn. of a reduced coenzyme (NL 16.8.77)

BECKMAN INSTRUMENTS INC 11.01.77-US-758518 (13.02.76-US-657976)

B04 J04 R16 (03.07.79) *DT2705-859 G01n-31/14 G01n-33/16

Reagent system for an inorganic phosphate assay comprises (a) maltose, (b) maltose phosphorylase, (c) a co-enzyme selected from β-nicotinamide adenine dinucleotide (phosphate), (d) glucose-6-phosphate dehydrogenase, (e) β-D-phosphoglucomitase, and (f) a non-phosphate buffer having a pH of ca. 6-8.

The components (a)-(e) are present in amts. such that the inorganic phosphate to be assayed is the limiting component. The process provides a determn. for α-amylase concns. in serum and urine, etc. using simple, quick, reliable techniques. 12. 12. 77 as 859412 Div. ex. 4036697, 4097336 (+11. 1. 77-US-758518) (7pp924)

SHIO D16 59685Y/34 =US 4160-023

Pseudomonas aeruginosa protease and elastase toxoids - having antigenicity but no enzymatic activity

SHIONOGI KK 05.02.76-JA-010837 (05.02.76-JA-010836)
*B04 C03 (03.07.79) *DT2704-767 A61k-39/40*

Toxoid derived from Pseudomonas aeruginosa is obtd. by inactivating the purified protease obtd. from Pseudomonas aeruginosa in a buffer soln. with 4-10% formalin or 0. 04-3M oxymethanesulphinic acid in the presence of lysine. This is followed by dialysis and lyophilisation.

The toxoid has (1) mol. wt. 63,000 (gel filtration); (2) UV absorption spectrum max. 280 mµ ($E_1\%^{280}$ 9. 27 0. 1 M KCl) min. 200 mµ; (3) isoelectric point pH 5. 2 (forced electrophoresis); (4) constituent amino acids (amino acid per 100 g protein):aspartic acid (15. 6), glutamic acid (9. 5) leucine (8. 7), alanine (8. 5), glycine (7. 7), serine (7. 6), tyrosine (6. 9), phenylalanine (5. 9), theronine (5. 0), valine (5. 0), lysine (4. 1), isoleucine (3. 9), arginine (2. 3), tryptophan (2. 3), proline (2. 1), histidine (1. 9), ammonia (1. 4) (total 98. 5 g); (5) appearance: colourless; (6) antigen activity: positive, (7) protease activity: negative.

The toxoids are antibiotics active against P. aeruginosa. They are used in human and veterinary fields. 31. 1. 77 as 764454 (6pp964)

CORR ★ D16 54424B/29 ★US 4160-024

Immunising chickens against Marek's disease - using non-attenuated, naturally non-oncogenic viral strain

CORNELL RES FOUNDATION 01.05.78-US-901635
B04 C03 (03.07.79) A61k-39/32

Chickens are immunised against Marek's disease using a nononcogenic, unattenuated viral vaccine prepd. by serially passaging the SB virus strain (or its cloned deriv. SB-1) through cell cultures until the viral titre is sufficiently increased but without causing attenuation. The virus is pref. inoculated on chicken kidney or chicken embryo fibroblast cultures.

Vaccines do not cause tumours even in immunosuppressed or immunoincompetent birds. Since a natural virus strain is used reversion to a virulent form is impossible. Chicks are pref. vaccinated when 1-day old. 1. 5. 78 as 901635 (7pp1251)

MEIJ D16 18096A/10 =US 4160-026

Weakly basic oligosaccharide antibiotics and immuno:potentiators - prepd. by culturing streptomyces strain esp. streptomyces myxogenes sf-1130

MEIJI SEIKA KAISHA 23.08.76-JA-099757
*B04 (03.07.79) *DT2737-943 C12d-09/14 +A61k-35/74*

SF-1130-x_1 substance and SF-1130-x_2 substance are produced by cultivating a strain of genus Streptomyces myxogenes SF-1130 identifiable as FERM-P 676 or ATCC 31. 305 capable of producing SF-1130-x_1 substance and/or SF-1130 x_2 substance in an aq. liq. culture medium contg. assimilable C and N sources. The culture is under aerobic conditions.

The substances are antibiotics whose activity is improved when used in combination with maltose, maltotriose, maltotetraose, maltopentaose, maltohexaose or maltoheptaose. 22. 8. 77 as 826766 (15pp964)

HEFE- D16 72724Y/41 =US 4160-040

Stabilising powdery fresh baker's yeast - by adding solid hydrophilic and solid hydrophobic additives

VERSUCH HEFEINDUSTRIE EV 01.04.76-DT-614348
*(D11) (03.07.79) *DT2614-348 C12c-11/26*

A free-flowing powdery baker's yeast prepn. consists of a mixt. of finely dispersed yeast having a residual water content of 65-75 wt. %, 0. 01-5. 0 wt. % of hydrophobic silicon dioxide and 0. 2-10. 0 wt. % of hydrophilic silicon, each in colloidally dispersed form and wts. w. r. t. yeast.

Prepn. has better stability of its fermentations activity during storage w. r. t. compressed yeast of same residual water content. Pref. hydrophobic silicon dioxide comprises 0. 2-1. 0 wt. % w. r. t. yeast of residual water content 65-75 wt. %, and the hydrophilic silicon dioxide comprises

of baker's yeast caused by autolysis of yeast cell
come. 28. 3. 77 as 782256 (3pp931)

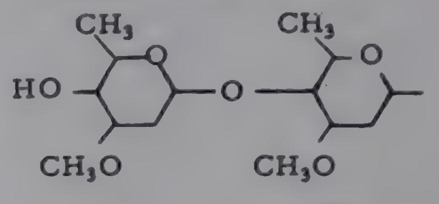
MERI ★ D16 54453B/29 ★U

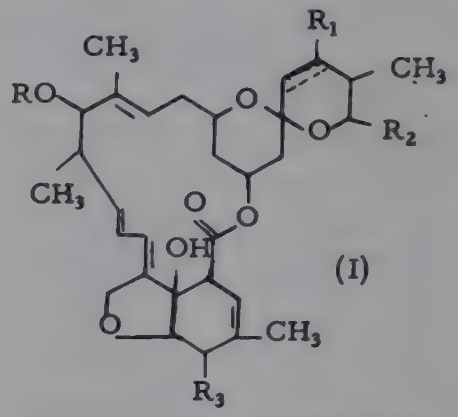
**Chromatographic sepn. of antibiotic C-076 components -
of Sephadex LH-20 (RTM) eluting with mixed solvent of
chloride of chloroform, hexane or heptane and (m)ethano**

MERCK & CO INC 03.10.77-US-838710
A91 B02 (03.07.79) C07h-17/08

Separation of antibiotic C-076(I) into its componen
B by appying to a column of Sephadex LH-20 and e
with a mixed solvent containing 8-10 parts CH_2Cl_2
8-10 parts hexane or heptane and0. 5 to 2 parts me
ethanol.

In the formula R is:





(I)

R₂ is propyl or bu
is methoxy or OH
line represents a
al double bond and
OH when broken l
represents a sing

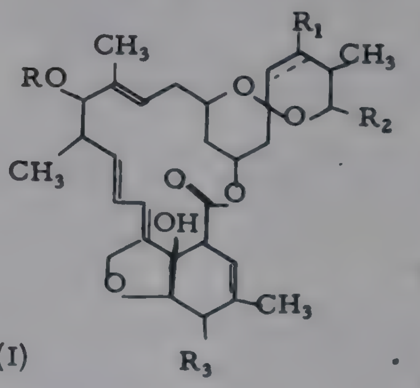
The prods. a
as parasticides.
tibiotic complex i
by cultivation of S
myces avermitilis
suitable medium u
aerobic condition
30. 10. 77 as 83871
(5pp916)

MERI ★ D16 54454B/29 ★US

**Chromatographic sepn. of antibiotic C-076 componen
hydroxyalkylated dextran gel, eluting with mixed solven
b.pt. hydrocarbon, benzene, toluene or xylene, and lower a**

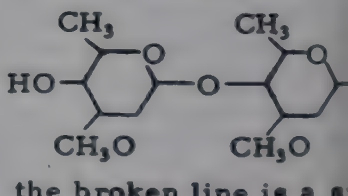
MERCK & CO INC 11.10.77-US-840921
A91 B02 (03.07.79) C07h-17/08

Sepn. of the B_1 and B_2 components of antibiotic C-0
by chromatography on hydroxyalkylated dextran gel



(I)

ing with a mixed sol
low boilding point hy
rbons: toluene, benz
xylene: lower alkano
the ratio 30-90:10-6
In the formula R is:



the broken line is a s
or double bond; R_1 is
only when the dotted line represents a single bond;
propyl or butyl; and R_3 is OH.

Sepdn. of the A_1 and A_2 components of antibiotic
076 (I) (where R_3=CH_3O) in the same manner as for
B_2 components except the ratio of low boiling point
carbons; toluene, benzene or xylene, lower alkanol
mixed solvent is in the range 5-7:0. 5-1. 5:0. 5-1. 5.

The prods. are useful as parasiticides. (I) is ob
cultivation of Streptomyces avermitilis. 11. 10. 77
840921 (6pp916)

NATR D16 30579A/17 =US 4

**Determining bacterial activity - by monitoring ohmic compo
electrical impedance of culture following metabolic change**

NATIONAL RES DEV CORP 19.10.76-GB-043334
*B04 +R18 (03.07.79) *DT2747-033 +G01r-27/02*

Bacterial activity, partic. in foodstuffs, is detected
culating into a nutrient medium, holding at constant
and monitoring the resistive component of the cultur
trical impedance for suff. time that metabolising ba
affect the value.

e than +0.01K. The culture is pref. kept const-
01K and the component is sensed directly. The
rmits measurements in cells with a resistance as
ohms so that nutrients with wide variations in
ntration can be used. 19.10.77 as 843493
)

See Also

D13 J5 4070477
D13 SU 625676
D13 WP 7900421
D13 J7 9016575
D13 SU 625680
D17 BE 873401
D13 J7 9016597
D13 US 4160038
D17 BE 873480

D17: SUGAR; STARCH

D17 52537B/29 ★BE -873-401

high purity maltose crystals from starch hydrolysate - by
th glucoamylase, evaporating and crystallising
ERNATIONAL INC 12.01.78-GB-001291
6) *(11.07.79) C12d C13k*

crystals of size ≥ 120 μ x 50 μ are made by the
steps (A) A starch hydrolysate contg. ≥ 75% mal-
of > 400 cps viscosity is treated with glucoamyl-
r hydrolysis conditions to reduce the viscosity to
s without substantially reducing the maltose conte-
ne treated hydrolysate is made supersaturated in
by raising the temp and solids content followed by
crystallisation of the supersaturated soln. (C)
p is progressively reduced and crystallisation is
out until ≥25% of the maltose has crystallised fo-
y isolation.
e previous processes, the above affords maltose
high purity efficiently and economically on the in-
scale. 11.1.79 as 873401 (29pp597)

D17 52555B/29 ★BE -873-480

onas polysaccharide(s) used to prepare aq. gels - prepd.
ntation with specified nitrogen concn.
E-POULENC INDUSTRIES 16.01.78-FR-001572
(16.07.79) C12d

ducts giving gels with improved filterability, are
y the following process. An inoculum is prepd.
Xanthomonas culture, opt. followed by an intermed
ep of microorganism growth. The inoculum is add-
medium comprising a glucide and an appropriate N.
ollowed by fermentation. The N source comprises
one organic nitrogen product and the amt is 0.01
(as nitrogen) per litre.
process avoids impurities which reduce the filter-
f the derived gels and which make it unsuitable for
uses such as in petrol recovery. 15.1.79 as 873480
7)

D17 28120R/17 =DS 1792-654

of sugar juice by simultaneous clarification - and
ation in the presence of a cationic surfact
& LYLE LTD 29.09.67-GB-044594
*.07.79) *FR1582-468 +C13f-01/14*

olns. are purifed by (a) encapsulating impurities
led in the soln. with an inorganic flocculent while
neously adding 0.005-0.3 wt.% (based on sugar
of a quaternary ammonium cpd. having long hy-
oon chains and (b) separating the thus pptd. impuri-
By adding the surface active quaternary ammonium
the same time as the flocculant (instead of in sep-
tages as previously) the flocculated pptd. is more
and easily sepd. as it traps air bubbles and rises
surface. 30.9.68 as 792654 (6pp922)

D17 32227A/18 #GB 1548-489

eet extraction tower with central rotor - and bottom feed
slit shaped openings oblique to radius
UNSCHWEIG MASCH 25.04.77-DL-198596 (04.07.77-GB-
39)
*8.07.79) *DL-129-806 +B01d-11/02*

sion tower for sugar beet cossettes comprises an
t cylindrical shell with internal baffles and a concen-
tary shaft with [illegible] flights and a cossette dis-
clined to the tower radius.

Juice is discharged from the tower base and pulp from the top, and extn. liq. is fed to the tower top. The flights cooperate with the baffles to carry cossettes upwardly. Slot length is pref. more than half the distance between shell and shaft, and the slot opens out conically in the shell direction. 4.7.77 as 027839(7pp1358).

BEWA- D17 84084A/47 =GB 1548-500

Xylose prodn. from annual plant residues e.g. straw - by treatment with aq. acid soln. to remove salts and organic contaminants, hydrolysing residue and xylose recovery
INST BEWARING VERWE 17.05.77-GB-020767
*E13 (18.07.79) *BE-867-153 C13k-13*

Prodn. of xylose by hydrolysis of residues of annuals comprises (1) contacting the residues countercurrently with aq. acid soln. at elevated temp. and that $\log_{10}t=pH_1-\frac{Ti}{25}=f_1$(I); (2) removing excess liq. from the treated residues; (3)increasing the mixture content of the reidues to ≥ 75 wt. % of the mixt residues with an acid soln. contg. xylose but which does not contain disolved SO_2 when (4) hydrolysing the pentosans in the acidified residues (dis)continuously and maintaining conditions and that $\log_{10}t_2=pH_2-\frac{T_2}{25}=f_2$ (II).

Method futher comprises (5) terminating the hydrolysis; (6) extracting the pentoses from the residues (dis) continuo-usly and (7) filtering the xylose soln. obtd., treating with ion-exchange resins to remove impurities, concentrating the soln. by evapn., and opt. recovering xylose from the syrup obtd.

In (I) and (I) t_1 in acting time of the acid soln. in mins; t_2 is hydrolysis time in mins; pH_1 is pH of acid soln. and is 1-5; pH_2 is pH of liq. in mixt. of residues and acid soln. and is <3.0; T_1 is holding temp. of mixt. of residues and acid soln. in °C; T_2 is holding temp. of mixt. in °C and is >100°C; f_1 is 2.5-4.0 and is dependent on the type and nature of the annuals used, as the mechanical treatment during(I), and on the particle size of the residues; and f_2 is 5.4-6.2.

The prod. xylose soln. is highly pure and can be used without crystallisation. 17,5.78 (9pp393).

FIVE D17 25696A/14 =GB 1548-523

Sugar refinery centrifuge - has perforations graduated from centre to periphery, to equalise material movement (NL 29.3.78)
FIVES CAIL BABCOCK 27.09.76-FR-028954
*P41 (18.07.79) *DT2743-458 B04b-07/16*

A frustoconical screen for a centrifugal dryer basket, partic. for refined sugar, comprises circular perforated bands each divided into sectors with the arrangement of apertures similar for all sectors of a band. The screen smaller end first band has circular apertures, while further bands have slots.

All slots in the same sector have a common inclination relative to the sector median generatrix, the inclination increasing from band to band from the screen smaller to larger end. The percentage of voids in the first band is pref. smaller than for other bands. The arrangement promotes prod sliding in the basket narrower part and retards it in the washing and final drying zones to maintain a continuous layer sliding at constant speed. 22.9.77 as 039632(5pp1358).

STAL D17 55423A/31 =GB 1548-543

Dense packing of sepn. columns using reversibly contracted adsorbent - esp. for sepn. of sugar solns. contg. fructose an dextrose (BE 24.7.78)

STALEY A E MFG CO 24.01.77-US-762072

*A91 E13 J01 +R16 (A13) (18.07.79) *DT2802-711 B01d-15/0 C13k-01/08 +C13k-11*

Adsorbent (I) is densely packed in a sepn. column having a chamber ≥6 feet wide by first intermixing (I) with an excess of a conc. reagent which causes (I) to contract, (I) being capable of swelling when the excess conc. reagent is removed.

Excess conc. reagent is then removed from (I) in its reduced vol. condition confined in the chamber of the sepr column by which (I) is caused to swell to completely and uniformly pack (I) throughout the sepn. column chamber.

(I) is esp. a crosslinked nuclearly sulphonated polystyrene cationic resin. Prod. is used for the sepn. of fructose and dextrose sugars. 17.1.78 as 001797(11pp936).

ICHI/ D17 76324Y/43 =J7 9016-48

D-Ribose prodn. from D-isoascorbic acid salts - by heating with addn. of organic or mineral acids

ICHIKAWA A 15.03.74-JA-030264

*E13 (22.06.79) *J50123-612 +C07h-03/02*

A mixt. of highly polymerised dextrin or cyclodextrin and sorbose or xylose is treated with cyclodextrin-glycosyltransferase to yield oligosaccharides having sorbose or xylose terminals. The products arenew sweeteners having a unique taste.

In an example, Bacillus megaterium T-5 (FARM935) was cultured aerobically at 32° for 3 days in a medium contg. corn steep liquor 1, starch 4, wheat bran 1, $(NH_4)_2SO_4$ 0.25, and $CaCO_3$ 1%. The medium was centrifuged, and to 2 l. of the supernatant contg. the crude enzyme (67 units/ml.), $(NH_4)_2SO_4$ was added to a concn. of 19%. The mixt. was cooled to 3° and the enzyme was adsorbed onto 150g corn starch. The sorbed enzyme was extd. with 0.03M Na_2HPO_4, and the enzyme soln. was treated with $(NH_4)_2SO_4$ to obtain 20g of crude enzyme. Sep., 100g sol. starch was suspended in 1l. water and heated. The starch soln., sorbose 80g and enzyme 0.2g were mixed and the mixt. was incubated at 50° and pH 5 5 for 2 days. The mixt. was filtered and the filtrate was concd. to a syrup (1.90g). 15.3.74 as 030264 C07h-3/02 (22.6.79) ICHIKAWA, A. (2pp38) (J5 0123612)

INZA- ★ D17 B/29 ★RU --64-044

Sack filter installation for sugar plants - has sack reconditioning facilities

INTR IND ZAHAR 04.04.73-RU-074372

(15.06.78) B01d-29/10

ALIM- ★ D17 B/29 ★RU

Sugar beet sugar losses reduction - by storing under oxygen and carbon dioxide atmosphere

INST ALIMENTARE 26.06.73-RU-075249

(30.10.78) A01n-05/10

MAKS/ ★ D17 54220B/29 ★SU

Sugar juice defecator - includes a housing with concent around fixed and revolving blades

MAKSIMUK P S 04.04.75-SU-121975

(01.09.78) C13d-03/02

Purificn. of sugar juice is improved by the defecat fitted with a concentric cylindrical shell. The fixe of the tank have their ends inside the shell which al holds the vertical shaft blades.

The juice from the predefecator and milk of lim fed to the top of the cylindrical shell where it is tre between the fixed and revolving blades. The change flow direction promote sand and other impurities to sepd. and precipitated at the bottom for periodic re Maksimuk P.S., Bul. 36/30.9.78 4.4.75 as 12197

GIDR= ★ D17 54221B/29 ★SU -

Mono:saccharide prodn. from vegetable materials - by sul starting material to two/stage hydrolysis first with mineral a then with hot water under high press.

GIDROLIZPROM HYDROL 24.12.76-SU-433913

E13 (03.10.78) C13k-01/02

Monosaccharide solns. are produced by a two-stage lysis of a vegetable material, e.g. wood chips; in th stage prehydrolysis of the wood chips is carried out countercurrent with a mineral acid soln. at 100-120 The resulting monosaccharides are washed out from residual cellolignin, which is then subjected to the s ond-stage bydrolysis in cocurrent with hot water un high press.

The process is simplified and the monosaccharid is increased by carrying out the prehydrolysis with 2% mineral acid soln. e.g. H_2SO_4 (2-9% soln. in the process) in countercurrent until all sugars are extra and carrying out the second stage hydrolysis of cell nin in cocurrent with water at 200-290°C under a pr of 16-80 atm.

Lebedev I.V., Sarzhe V.I. Babina O.M., Bul. 36/ 24.12.76 as 433913 (2pp70)

See Also

D15 EP ---2698 D15 J5 4073463 D16 J5 40713

D18: SKINS; HIDES; LEATHER; TOBACCO

AMMA ★ D18 52610B/29 ★BE -874-874

Reconstituted tobacco leaf contg. fibres, partic. hardwood - which do not appreciably increase aq. dispersion viscosity

AMF INC 17.03.78-GB-010583

P15 (02.07.79) A24b A24c

A readily worked compsn. contains finely divided tobacco, an adhesive for the tobacco, and 2-12 wt.% (w.r.t. dry base) of unrefined short cellulosic fibres of mean length <2mm. The compsn. is in the form of a <10 wt.% aq. dispersion. The cellulosic fibres can be obtd. from a hardwood, bagasse, bamboo, rice stalks, wheat straw or esparto. Wood fibres derived from oak, eucalyptus or poplar are pref. used. The adhesive is pref. tamarind gum.

The compsn. is used to make reconstituted tobacco leaf, as used in cigar wrappers, etc. The leaf has increased mechanical resistance. The fibrous reinforcing agent is compatible with current costing systems, and it does not appreciably increase the viscosity of the tobacco dispersi-

content (which require less energy for drying). Min. vestment and operating costs are required. 15.3.79 874874 (21pp1331)

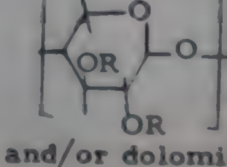
CELA D18 30314Q/00 =DS 19

Tobacco replacement material - contg. starch, starch eth cellulose ethers

CELANESE CORP 01.11.68-US-772834 (10.01.68-US-696699

*A97 +P15 (A11) (12.07.79) *NL6900-136 A24b-15/05*

Tobacco substitute contains a non-combustible filler and a cellulose deriv. of repeating unit



(where >1 R is lower alkyl, lower hydroxyalkyl and/or lower carboxyalkyl and the other(s) is/are H) having an ave. degree of substitution of 0.2-3.0, the (I) : (II) wt. ratio being 25-75: 75-25. Suitable (I) incl. diatomaceous earth, MgO, TiO_2, zeolites and/or dolomi carbonates of Mg, Ca, Al and/or Fe.

The material has a good combination

g characteristics and its smoke has an extremely low nt of toxic products. 7.1.69 as 900491 (9pp922)

D18 34651Y/20 =DS 2549-527

tage leather tanning process - comprises pretanning with a ehyde in formaldehyde soln. followed by a mineral tannage
SF AG 05.11.75-DT-549527
*7 (12.07.79) *DT2549-527 C14c-03/28*

od for producing leather for pre-tanning with analdeh- tanning soln., obtd. by dissolving 1 mol of a 2-8C -dialdehyde or its acetal in a 10-40% aqs. soln. of 4-6 HCHO at pH 5-10 and heating the soln. to 80-95°C wed by tanning with Cr, Al or Zr salts.

he pre-tanning is carried out directly on the de-ashed (i.e. without defatting or pickling), but not using su- es to effect the de-ashing, and the tanning then effect- ith (based on pelt wt.) 1-2.2% Cr_2O_3, 2.5-4% Al_2O_3 or % ZrO_2.

his combination reduces water pollution while produc- good quality leather. 5.11.75 as 549527 (4pp922)

★ D18 52715B/29 ★DT 2800-150

sing leather or polyurethane leather with co polyamide - ved from di:amine adipate and piperazine decane- rboxylate-azelate
ASF AG 03.01.78-DT-800150 (00.00.76-DT-630114)
82 F08 (A23 A25) (12.07.79) C14c-11 D06n-03/08

parent patents concern copolyamides (I), with K values 5-70 (1% soln. in 96% H_2SO_4 at 20°C), obtd. by melt densn. at 180-300°C from 5-18 (wt.%)% hexamethylene mine adipate (II) and 95-82% salt (III) of piperazine mixts. of decane-1,10-dicarboxylic acid and azelaic d in 70:30 to 95:5 molar ratio, opt. in the presence of ces of monocarboxylic acid as mol.wt. regulator, ording to DT 26 30 114, or from salts (IV) of adipic d with a 5-20, pref. 6-15C (cyclo)aliphatic prim. mine instead of (II) according to DT 28 00 149. Accord- to DT 28 00 149, (I) is used for dressing artificial lea- r with a plasticised PVC surface. Improvement is that is used for dressing leather or artificial leather with a yurethane surface.

(I) forms stable solns. in the usual solvent mixts., neres firmly and permanently to the surface, has good l, gloss and mechanical properties and retards plasti- er and dyestuff migration. 3.1.78 as 800150 Add to 30114; 2800149 (14pp016)

HW- D18 49248B/27 =EP ---2-739

ntinuous leather drying press - with back-up rolls around pressure hion on central roll and perforated carrier belts
SCHWEIZER L GMBH 22.12.77-DT-757257
*+P71 Q76 (11.07.79) *DT2757-257 C14b-01/34 +B30b-09/24 F26b-05/14*

/S: E(BE, DT, FR, GB, IT, NL).

continuous press for the drying out of leather moves the aterial, enclosed between conveyor belts, through the ps between a pressure roll and back-up rolls. The essure roll is enclosed in an elastic hose which forms th it a pressure cushion. The conveyor belts are perfor- ed, pref. made of plastics.

The arrangement results in a gentle treatment of the ather and in a high dewatering efficiency which is main- ined for long working periods. Costs for maintenance r replacement of belt conveyors are negligible.

5.12.78 as 101694.(19pp39).

G) ISR: DS1030184; GB-118054; FR-453093; DT2052879; T2220660; US3707749; US3699621.

ASS- D18 49263B/27 =EP ---2-773

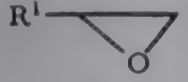
ompsn. for treating cellulosic textiles and leather - to improve feel nd water resistance, contains alkyl-substd. methylol-urea and mulsifier
CASSELLA AG (CASS) 23.12.77-DT-757582
*A87 E19 F06 (11.07.79) *DT2757-582 C14c-09 D06m-13/38 +C07c-127*

/S: E(BE, CH, DT, FR, GB, IT).

inishing and water-proofing compsn. for textiles con-

(i) 10-35 (10-25) wt.% of a urea deriv.

$RNH.CO.N(H)_n(CH_2OH)_m$ (I) (R = 14-22C opt. branched alk(en)yl; m = 1-1.5; n = 2-m); (ii) b wt.% nonionic emulsifier; (iii) c wt.% anionic emulsifier (b = 0-10; c = 0-3; b + c = 0.5-10); (iv) 0-5 wt.% epoxide



(II) (R^1 = 15-40C alk(en)yl); (v) 0-25% fat liquor and (vi) 25-89.5 (40-89) wt.% water or water-miscible solvent.

Pref. the anionic emulsifier has formula

$A\text{-}(OCH_2CHR_4)_qOH$ (III) (A = 10-22C linear alk(en)yl or alkylphenyl with total of 6-12C in alkyl gps.; q = 8-14; R_4 = H or 1-2C alkyl). Esp. b is 0-5 and c = 0-3 with b + c = 1-5.

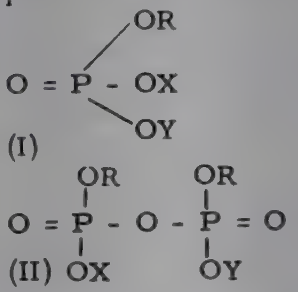
The material is made hydrophobic and has improved handle; these effects being resistant to cleaning. Many different types of leather can be treated and the compsns. have good stability on storage and in aq. baths.

18.12.78 as 101747 (43pp1251).
(G) ISR: DT2320302; DS-762964; US2361185.

CHFS D18 83392X/45 =GB 1548-947

Treating leather and pelts with phosphate esters - opt. contg. alkylene oxide adduct gps. to improve hand and strength
CHEM FAB STOCKHAU 17.04.75-DT-517057
*A97 E11 (18.07.79) *DT2517-057 C14c-09/02 +D06l-01/04*

Leather or fur skin which has been mineral-tanned, or articles mfd. from them, are treated by applying ≥ 1 phosphoric acid ester of formulae (I) or (II) in soln or dispersed in an organic solvent. In the formulae R may be (un)substitd. alkyl or alkenyl a mono- or polyglycol gp. X is R, or H, alkali metal or an organic base. Y is H, an alkali metal or an organic base. Pref. treatment is carried out during or after a defatting treatment. The organic solvent used is perchloroe -thylene, contg. 1-10 wt.% phosphoric acid ester(s).



(I)

(II)

Process considerably improves the softness, handle characteristics, tear resistance, tear propagation resistance and stitch tear resistance of leather and fur skin.
15.4.76 as 015563(7pp931).

ASAH D18 58822V/33 =J7 9016-599

Tobacco substitute prodn. - by treating cellulose with alkali, ageing and neutralising
ASAHI KASEI KOGYO 12.08.71-JA-061137
*A97 P15 (23.06.79) *GB1363-009 A24b-15*

Tobacco substitute prodn. by steeping a cellulose of D.P. > 95 in an alkali to convert the cellulose to alkali cellulose which is aged with an O_2-contg. gas to give D.P. ≤ 95, followed by neutralisation, where η rel = rel. viscosity and c=concn. of degraded cellulose.

$$\text{Av.D.P.} = 4\sqrt{n\ \text{rel}^{-1}}\ \frac{(8\times10^3)}{c}$$

12.8.71 as 061137 A24b-15/00 (23.6.79) ASAHI KASEI KOGYO KK (4pp) (J4 8026996)

OKAD/ D18 81184P/00 =J7 9016-600

Cigarette filters from oh contg polymers etherified to
OKADA S (OKAD) 30.03.63-JA-015984 (00.00.65-JA-063893)
*A97 +P15 (23.06.79) *GB1064-692 +A24b-15/03*

Method comprises (a) coating fibres (I) with alkali salt of glycolic acid ether of hydroxyl-contg. natural polymer (II), (b) treating the coating with acid to convert all or a part of the salt into free carboxylic acid, and (c) collecting the fibres to form a filter tip. Pref. (I) are e.g. natural fibres, synthetic fibres, glass fibres, etc. (II) is e.g. cellulose, starch, alginic acid, etc.

In an example, a 2% aq. soln. of CMC is sprayed onto nylon fibres and dried; the coated fibres are treated with alcoholic soln. of acetic acid to convert sodium salt into the acid and washed with 80% ethanol. A filter tip 2.5cm in length made from the coated fibres adsorbs ca.70% of nicotine and ca. 90% of 3,4-benzpyrene contained in cig-

arette smoke. 30.3.63 as 63893/65 Div ex 15984/63
A24b-15/033 (23.6.79) OKADA, S. (2pp83)

INRO- ★ D18 B/29 ★RU --63-286
Circular cutter sharpening device - for fur skin fleshing machine
IND ROMANA PIELE 30.01.73-RU-073652
P62 (08.07.78) B26d-04/54 C14b-01/02

MERC/ D18 21098X/12 =SU -625-624
Skin/hide fleshing machine - has counter element facing tool roller and deformable to concave or convex shape
MERCIER G 26.08.74-FR-029783
*(30.10.78) *DT2536-772 C14b-01/02*

Improved hide scraping is ensured by the deforming unit of the presser, ensuring deformation amplitude control with a connection to the drive. The carriage holds a beam to which the deforming plate is articulated, and the central connection controls curvature of the presser. The resilient support is in the form of a pneumatic tube made of elastic material and attached to the deforming plate the deforming unit comprises two hydraulic cylinde attached to the beam and with piston rods connected deforming plate by a ball joint.

The contact of the deforming plate is connected t drive, as well as to the solenoid valves of hydraulic inders via an adjustable timer. Amplitude of deforr is set by screws at the ends of the beam, the bearin the screws facing the deforming plate. The rate of ormation is set for each batch of treated skins.

Mercier G. and Mercier J., Bul. 35/25.9.78 4.8.7
162225 (5pp89)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

D21 95557P/00 =DS 1617-857
hylene glycol wax-contg. hormone compsn. - for baldness
ntion
RUTHERS SCI & INT CORP 07.02.67-CA-982324 (25.05.66-GB-
3403)
*5 B01 (12.07.79) *NL6707-178 A61k-07/06 +A61k-31/56*
netic compsn. for the treatment of human scalp cont-
steriod(s), and in particular, testosterone, (0.3-2.0
). These prods. prevent loss of hair and stimulate
growth. 24.5.67 as 617857 (+8.7.66(2), 28.7.66,
66, 24.10.66 - GB- 030796-7, 033869, 036138,
23). (10pp047)

D21 43934V/24 =DS 2357-324
l filling compsns. contg. urethane-acrylate monomers - giving
adhesion to dentin and enamel
CTITE CORP 16.11.72-EI-001580
*96 (12.07.79) *DT2357-324 A61k-05/06*
ment mixt. (I) which is hardenable on the addn. of a
merisation initiator which forms free radical, and
h is useful for dental purposes, comprises (A) a re-
on prod. of an acrylic acid ester (II) with an organic
isocyanate and (B) an inorganic filler and opt. acrylic
methacrylic acid esters.
I) used has the formula $CH_2{=}CR^2COOR^3$ in which R^2
, Cl, Me or Et and R^3 is (a) 1-8C hydroxyalkyl or
noalkyl, or (b) 1-6C alkylamino-1-8C-alkyl or (c) a
oxyphenyl-, aminophenyl-, hydroxynaphthyl or amin-
hthyl gp. opt. substd. by an alkyl-, alkylamino or
kylamino gp, each alkyl gp. contg. $\not>$ 3C.
I) have improved properties compared with carboxylate
ents etc. 16.11.73 as 357324 (8pp481)

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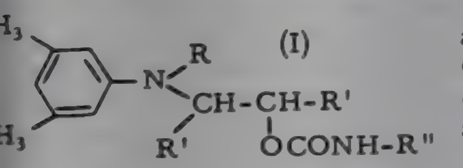
3 ★ D21 52697B/29 ★DT 2759-239
Di:methyl-anilino-ethyl carbamate derivs. - useful as starters for
xide-hardened dental filling compsns.
AYER AG 31.12.77-DT-759239
14 (12.07.79) A61k-05/ C07c-125/06*
anilino-ethyl contamate derivs. are of formula (I)



(I)

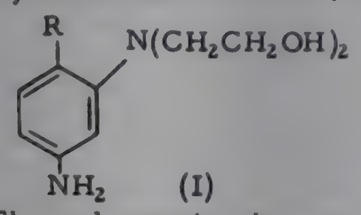
In (I) R is 1-4C alkyl, R_1 is H, CH_3 or C_2H_5; andR" is CH_3, C_2H_5, cyclohexyl or phenyl. (I) are useful as reducing components for use in
rter systems for peroxide-hardened dental filling
npositions. The gelling time for the compositions is
hin the range required in dental practice, and the tend-
y to discolouration of the fillings is minimal. 31.12.77
759239 (13pp280)

N D21 50979B/28 =EP ---2-690
th paste compsns. contg. zeolite - to reduce corrosion towards
minium tooth paste tube
BLENDAX WERKE SCHNEIDER 22.12.77-DT-757280
*(11.07.79) *DT2757-280 A61k-07/16*
S: E(BE, CH, DT, FR, GB, IT, NL, SW).

othpaste compsns. contain a polish and other conven-
nal ingredients, and also 0.05 to 5.0 wt.% of a synthetic
olite-type alkali metal aluminosilicate (I).
ncorporation of (I) inhibits corrosion of aluminium (e.g.
toothpaste tubes).
12.78 as 101575.(14pp367).
) ISR: FR2211211; FR1047979; GB1476063; US2470906;
-824285; FR-930740. 2 Journal References.

HENK D21 51023B/28 =EP ---2-828
Oxidative hair dyes - contg. N,N-bis-hydroxyethyl-meta-phenylenediamine cpds. as coupling components
HENKEL KG AUF AKTIEN 27.12.77-DT-758203
*E24 (11.07.79) *DT2758-203 A61k-07/13*
D/S: E(BE, CH, DT, FR, GB, NL, SW).

Hair colourants based on oxidn. dyes contain (a) m-phenylenediamine derivs. of formula (I):



(where R is H or 1-4C alkoxy) or their (in)organic salts as coupling components, and (b) conventional developers.

The colourants give very intense amber to violet shades with good fastness. Cpds. (I) are readily water-soluble, have good storage stability and are toxicologically and dermatologically harmless.
27.12.78. as 101849 (12pp367).
(G) ISR: GB -822948; US 2083308; FR 1136996; CH -455154; GB 1287343; 1 Journal Reference.

ESPE D21 51165B/28 =EP ---2-831
Opaque dental filling materials - based on photopolymerisable resin contg. calcium fluoride as white pigment
ESPE FAB PHARM PRAPARATE 03.01.78-CH-000038
*A96 (A14) (11.07.79) *DT2856-550 A61k-05/06*
D/S: E(BE, DT, FR, GB, IT, NL, SW).

In photopolymerisable dental filling materials containing mono- and/or polyfunctional (meth)acrylate esters, photoinitiators, pigments and opt. activators and silica or silicate fillers, the improvement is that the materials contain 1-20 (pref.2-15) wt.% of finely divided CaF_2 as white pigment.

The materials are sufficiently transparent to short-wave light to allow photo-initiated hardening while being sufficiently reflective for visible light to provide the required matt-white appearance.
28.12.78 as 101855 (15pp367).
(G) ISR: DT2646416; DT2126419; US4046578; FR765693; CH168872; + 1 Journal Reference.

PLOI/ ★ D21 53083B/29 ★FR 2405-988
Storage-stable perfumed coconut oil - obtd. by maceration of Gardenia tahitensis flower then adding fresh flowers
PLOIX P J Y 11.10.77-FR-030493
(15.06.79) C11b-09
Storage-stable perfumed coconut oil is produced by maceration of Gardenia tahitensis flowers. A fresh flower is then added to the filtrate obtd. after maceration. One fresh flower is used per 100-150 ml. oil.

The prod. is useful as a cosmetic for hair and skin.
11.10.77 as 030493 (4pp903)

FARH D21 30240A/17 =GB 1548-465
Stabilisation of di-calcium phosphate di-hydrate - with di-magnesium phosphate di-hydrate, pptd. simultaneously
HOECHST AG 23.10.76-DT-648061
*E33 (18.07.79) *BE-859-968 A61k-07/16 C01b-25/32*
Dicalcium phosphate dihydrate is stabilised using dimagnegium phosphate trihydrate, the dicalcium phosphate dihydrate being pptd. by reacting a calcuim cpd. with an aq. soln. of orthophosphoric acid or a phosphoric acid salt, pref. in the presence of a basic cpd.

Process comprises the joint pptn. with the dicalcium phosphate dihydrate, or subsequent pptn. directly onto the newly pptd. dihydrate, 1-50 wt. % w.r.t. dicalcium phosphate dihydrate, of dimagnesium phosphate trihydrate, by
magnesium salt soln. with a soln. of orthophos-

phoric acid or a phosphoric acid salt in the presence of a basic cpd. The 2 pptn. prods. are separated jointly from the resultant reaction mixt.

Dicalcium phosphate dihydrate, used in toothpaste compsn, is stabilised against the separation of water of hydration 18.10.77 as 043293(6pp931).

REDK- D21 75395X/40 =GB 1548-96

Cold-waving hair, with pre-bonding by aq. soln. of resin - which prepd. from epichlorohydrin and polyamide and used betwee reducing and oxidising stages

REDKEN LAB INC 03.07.75-US-592806

*A96 E33 P24 (A23 A26) (18.07.79) *US3981-312 A61k-07/09*

Hair is waved by contacting the hair with a reducing agen then contacting with an oxidising agent to reconstitute the hair. The hair is prebonded before contact with the oxidising agent, by contact with a polyvalent metal salt in aq. soln. and a water-soluble, reactive polyamide-epichlorohydrin resin in aq. soln. the salt and resin being functional improve the body of the treated hair.

Pref. during prebonding, the hair is contacted with 1-4 wt.% polyamide-epichlorohydrin resin. Polvalent metal ion concn. is 20 wt.% w.r.t. soln.

Treated hair exhibits the resiliency, strength and body desired for normal healthy hair. 21.4.76 as 016075(7pp)

REDK- D21 75395X/40 =GB 1548-9

Cold-waving hair, with pre-bonding by aq. soln. of resin - which is prepd. from epichlorohydrin and polyamide and used between reducing and oxidising stages

REDKEN LAB INC 03.07.75-US-592806

*A96 E33 P24 (A23 A26) (18.07.79) *US3981-312 +C08l-77*

An aq. prebonding compsn. is claimed which when applied to the hair is functional to improve the body of hair in a waving process. Compsn. comprises a single aq. soln. of $\geq$1 polyvalent metal salt of total salt concn. $\geq$20 wt.% and $\leq$4 wt.% of a water-soluble, reactive polyamide-epichlorohydrin resin.

Pref. the polyamide-epichlorohydrin resin is present in amt. $>$1 wt.% w.r.t. soln. Polyvalent metal salt is magnesium sulphate. The resin is formed by the reaction of epichlorohydrin with the reaction prod. of diethylene triamine and adipic acid.

Compsn. is used in a process for cold waving hair to give treated hair the resiliency, strength and body desired of healthy normal hair. 21.4.76 as 44449/78 Div. ex. 1548966(6pp931).

KOBA- ★ D21 53243B/29 ★J5 4070-434

Cosmetics prepn. - by modifying oily materials using cyclodextrin and combining with cosmetics base

KOBAYASHI KOSEI KK 16.11.77-JA-136762

A96 (06.06.79) A61k-07

Method comprises (1) modifying oily materials for cosmetic use with cyclodextrin to powdery, waxy or soft solid substance and (2) combining $\geq$ 1 kind of thus obtd. modified oily material in cosmetic base.

Hitherto oily material has been combined in cosmetics utilising its protective activity, humidifying activity, cleansing activity, etc. on skin and practically oily material has been previously stabilised with anionic surfactant. But due to oily tackiness, which makes aq. soln. turbid and leads to undesirable effect on skin, the use of anionic surfactant has been restricted. These problems are now solved. 16.11.77 as 136762 (5pp5)

MATM ★ D21 53244B/29 ★J5 4070-435

Cosmetic compsn. - contains wool powder of specific grain size

MATSUMOTO SEIYAKU KOGYO 15.11.77-JA-137014

(06.06.79) A61k-07

The cosmetic compsn. contains the wool powder, of which 95% is smaller than 65 mesh. Wool is the lightest natural fibre having specific gravity 1.304-1.305 g/cm^3 and its powder has apparent volume 4.1 cm^2/g. It is an amphoteric cpd. having peptide structure and shows buffering activity. Thus it can keep the skin weakly acidic and can protect the skin. It also acts as natural organic ion exchanger which can mask metallic ions in cosmetics. It shows humidity-keeping activity. Wool powder can be also dyed uniformly and fastly. It shows good affinity to surfactant, can be easily combined in liquid or powdery cosme

Wool powder can be prepd. by refrigerating wo
liquid nitrogen of ca. -180 °C and pulverising.
wool powder is combined $<$20% ($<$ 15%) in variou
metics e.g. cream, lotion, lip stick, shampoo, sc
powders, etc. 15.11.77 as 137014 (5pp5)

LIOC ★ D21 53245B/29 ★J5

Antiperspirant avoiding blockage of nozzle - contains strai
satd. fatty acid and an astringent metallic salt

LION DENTIFRICE KK 15.11.77-JA-136869

E17 (E12) (06.06.79) A61k-07/32

The antiperspirant is prepd. by combining 5-50 w/
12-16C straight, satd. fatty acid contg. $<$ 10 w/w
10C fatty acid and $<$ 40 w/w% of $>$ 18C fatty acid t
sweat-controlling agent contg. astringent metallic
and filling the mixt. into a pump-type or squeeze-t
sprayer. Crystallisation of the metal salt is prev

Pref. antiperspirant is a soln. obtd. by dissolv
tringent metal salt such as chlorohydroxy-aluminiu
alcohol-soluble chlorohydroxy-aluminium, chloroh
aluminium propyleneglycol chelate, bromohydroxy-
inium, etc. in water, ethanol or water-ethanol mi
stringent metal salt is used in an amt. of 5-30 w/w
15.11.77 as 136869 (5pp5)

KOBA- ★ D21 53246B/29 ★J5

Overcoating compsn. for lips improving durability and
rouge f - comprising ethanolic soln. of high mol. w
poly:hydric alcohol and methylphenyl polysiloxane

KOBAYASHI KOSEI KK 16.11.77-JA-136763

A96 (A26) (06.06.79) A61k-07/02

The compsn. comprises (a) ethanol soln. of high m
(b) polyhydric alcohol and (c) methylphenylpolysilox
The compsn. is spread on rouge to improve durabil
glossiness of the rouge film. It has excellent wate
tance, glossiness, transparency, softness and adhe
property and causes little irritation.

As high mol. cpd. vinylbutylether-vinylalcohol-v
tate copolymer, vinylacetate resin, water soluble a
resin, methacrylic acid-methacrylalkylether copoly
semi-methylester or semi-ethylester of poly (n- or
butylvinylether/maleic anhydride) can be used. As
hydric alcohol (b) propyleneglycol, glycerin, sorbit
polyethylene glycol can be used. The high mol. cp
used at 5-23 w/w% on the total compsn. and polyhyd
cohol (b) is used at 10-50 w/w% on the high mol. cp
thylphenylpolysiloxane (c) is used at 5-15 w/w% on t
overcoat. By adding the polyhydric alcohol (b) the
of the high mol. cpd. film and the stimulus of ethan
be improved. By adding the methylphenylpolysiloxa
ssiness of the film and the stimulus of the lip overc
be further improved. 16.11.77 as 136763 (3pp5)

MURA/ ★ D21 53247B/29 ★J5 4

Treating scalp and hair by blowing with ozone - after rubbi
with nutrients, insecticide etc. in alcoholic base, coating h
agent contg. lanolin etc. and covering with sheet

MURAI Y 09.11.77-JA-135121

E36 (06.06.79) A61k-07/06

Process comprises (a) spreading hair tonic contg.
insecticide, etc. in an alcoholic base onto the scalp;
applying hair-treating agent contg. lanolin, higher a
protein deriv. etc. to the hair; (c) covering the head
synthetic resin sheet for several minutes; (d) remov
sheet; and (e) blowing O_3 against the scalp and hair
°C for several to tens of minutes using an O_3-gener
dryer.

Hair-treatment and scalp-treatment are effected
taneously and a synergistic effect is achieved. 9.11.
135121 (2pp5)

SIYA ★ D21 53248B/29 ★J5 4

Hair tonic for preventing dandruff etc. - prepd. by cutting
skin into fine pieces, treating pieces in aq. medium with p
and filtering

SANSEI SEIYAKU KK (KYOE) 11.11.77-JA-135892

(06.06.79) A61k-07/06

Hair tonic contains the extract obtd. by cutting nava

ne pieces, treating pieces in aq. medium with protease
move protein and filtering.
he extract has excellent hair-nourishing effect,
ents falling of hair, prevents dandruff and promotes
d circulation in scalp. The extract contains hyaluron
id, chondroitin sulfuric acid, mucoitin sulfuric acid,
nic acid, etc. as the effective components, but the
t of the extract is superior to any of the individual
ponents. 11.11.77 as 135892 (5pp5)

A/ ★ D21 53249B/29 ★J5 4070-440
nourishing process by blowing with oxygen or ozone - after
ing aq. alkaline soln. contg. mercapto or sulphone cpd. into
, covering with resin sheet and spreading oxidising agent
URAI Y 11.11.77-JA-136116
17 (E36) (06.06.79) A61k-07/06
cess comprises (a) rubbing aq. alkaline soln. contg.
ral % of a cpd. with a mercapto or sulphone gp. such
hioglycolic acid into the scalp; (b) the head with a syn
tic resin sheet for 10-15 minutes; (c) removing the
t; (d) spreading a small amount of oxidising agent onto
scalp, and (e) blowing O_3 at 40-60°C for several to
of minutes against head using an ozone- or oxygen-
erating dryer. 11.11.77 as 136116 (2pp5)

A/ ★ D21 53250B/29 ★J5 4070-442
orm, fast-dyeing of hair - by applying oxidising agent, hair
mpoo and organic dye to the hair, and drying in ozone
MURAI Y 09.11.77-JA-135120
14 (E36) (06.06.79) A61k-07/13
method comprises rubbing a mixt. obtd. by combining
oxidising agent (such as hydrogen peroxide) and a small
. of hair shampoo with synthetic organic dye (such as
kly alkaline aq. soln. of p-phenylenediamine) onto the
d; and drying by blowing ozone at 40-50°C for 5-10 mins.
er the dyeing, the hair is pref. washed and rinsed with
dic rinsing agent.
The hair can be uniformly and fastly dyed in a short
e. By blowing warm ozone, the oxidn. can be comple
without damage to hair with less oxidising agent. The
thod does not require a skilled operator. 9.11.77 as
5120 (2pp5)

NZ ★ D21 53251B/29 ★J5 4070-443
tifrice compsn. - contg. oleophilic perfume, ethanol and water
ich can be satisfactorily dispersed using nonionic surfactant
SUN STAR HAMIGAKI K 10.11.77-JA-135499
(06.06.79) A61k-07/16
e dentifrice compsn. is prepd. by combining the essence
ich is obtained by dissolving 5-10 pt. wt. of oleophilic
rfume in 100 pt. wt. of a solvent composed of ethanol
95% ethanol) and water with a weight ratio of 8:2-4:6
4-5:5), singly or together with oleophilic perfume so
t the cocn. of whole oleophilic perfume in the dentifrice
0.3-1.0 (0.5-0.8) w/w%.
The essence prepd. above can be emulsified and disp-
sed satisfactorily with nonionic surfactant in dentifrice
mpsn. 10.11.77 as 135499 (5pp5)

OY ★ D21 53543B/29 ★J5 4072-207
ampoo compsn.. - contg. cationised cellulose ether, natural
sences and surfactant
LION FAT & OIL KK 21.11.77-JA-139584
A96 (A11) (09.06.79) A61k-07/06 C11d-03/38
shampoo compsn. consists of 0.05-5 wt.% cationised
llulose ether, 0.001-10 wt.% natural essence extracted
om animals or vegetables, and residual wt.% surfactant
d water.
Natural essence include the flower of chamomile, seeds
thyme or sedum, etc. for improving the circulation of
e blood in the head skin; leaves of the horse chestnut,
amomile, or peach, or the root of acacia, or blood, etc.
r the antiphlogistic and astringent effect, etc.
The shampoo compsn. has in addn. to the function of
e shampoo and finishing hair, a durable medicinal effect
the hair and head skin. The medicinal effect of the nat-
ral essence is exhibited durably not only during hair wash-
g but also thereafter. 21.11.77 as 139584 (7pp125)

KASH- ★ D21 53714B/29 ★J5 4073-135
Two-component foaming permanent wave compsn. - comprises thio-alcohol component and oxidising component, with one or both components contg. lecithin
KASHIWA KAGAKU KOGY 24.11.77-JA-139912
E17 (E11) (12.06.79) A61k-07/09

The permanent wave compsn. is composed of the first agent contg. cpds. having thioalcohol gp. and the second agent contg. oxidising agent. Lecithin 2-25% is added to one or both of two agents and the agent is sealed with jetting agent in spraying vessel.

Addn. of lecithin provides fine stable foams. Though lecithin itself shows a little foaming property, its foaming property can be much increased by the presence of thioglycollic acid. The foaming property can be further improved by using other surfactant with lecithin.

The appts. for permanent waving operating is only slightly stained with the agent and can be easily washed out. Hair is little damaged and glossy soft-wave can be attained. 24.11.77 as 139912 (4pp5)

POKK ★ D21 53715B/29 ★J5 4073-136
Perfume compsn. with good fragrance retention - contains non-toxic, non-stimulating methylphenyl:polysiloxane or its deriv.
POLA KASEI KOGYO KK 18.11.77-JA-138652
A96 (A26 D23) (12.06.79) A61k-07/46

Methylphenylpolysiloxane and its derivs. (e.g. fatty acid ethylene oxide adduct, propylene oxide adduct, etc.) are nontoxic and non-stimulative to skin, and when added to e.g. perfume, eau de Cologne, etc. give good fragrance-retention.

Methylphenylpolysiloxane or its deriv. is used in an amt. of 1-40, pref. 10-25%. Pref. methylphenylpolysiloxane which has low volatility and a viscosity of 10-1000 cs. at 25°C is used. 18.11.77 as 138652 (3pp5)

MIRA- ★ D21 B/29 ★RU --63-706
Feet conditioning cream - comprises lanolin, vaseline, higher alcohols, alcohols extract of Helleborus and distilled water
MIRAJ INTR COSMETIC 18.12.74-RU-080843
*(30.06.78) A61k-07/**

MIRA- ★ D21 B/29 ★RU --63-707
Day cream - comprises lanolin, vaseline, water- and oil soluble extracts of Hippophae Rhamnoides and usual additives
MIRAJ INTR COSMETIC 19.02.75-RU-081446
(30.06.78) A61k-07/02

MIRA- ★ D21 B/29 ★RU --63-709
Cosmetic rouge compsn. - comprises several waxes, oils, collagen, pigments and stabilisers
MIRAJ INTR COSMETIC 27.06.75-RU-082680
(30.06.78) A61k-07/02

MIRA- ★ D21 B/29 ★RU --64-548
nutritional cream for greasy skin - comprises vaseline, lanolin, alcohols and usual additives
MIRAJ INTR COSMETIC 27.06.75-RU-082677
(10.07.78) A61k-35

MIRA- ★ D21 B/29 ★RU --64-735
Pre-shaving lotion - comprises ethanol, glycerine, propylene glycol, menthol, collagen hydrolysate and distilled water
MIRAJ INTR COSMET 27.06.75-RU-088216
(10.07.78) A61k-07/06

MIRA- ★ D21 B/29 ★RU --64-736
Shaving foam compsn. - comprises glycerine, tri-ethanol-amine, stearin keto-stearyl-ethoxylate, collagen hydrolysate and distilled water
MIRAJ INTR COSMET 27.06.75-RU-088217
E19 (10.07.78) A61k-07/06

MIRA- ★ D21 B/29 ★RU --64-737
Hydrating lotion compsn. - comprises propylene glycol, ethanol, soluble collagen, distilled water and additives
MIRAJ INTR COSMET 27.06.75-RU-088218
E17 (10.07.78) A61k-07/48

MIRA- ★ D21 B/29 ★RU --64-738
Rouge compacts - comprise pigments, fillers, lanolin, collagen hydrolysate and usual additives
MIRAJ INTR COSMET 27.08.75-RU-088220
(06.07.78) A61k-07/02

LEFI= ★ D21 53999B/29 ★SU -625-711
Dental filling and cementing compsn. - contg. acrylic acid copolymers, zinc oxide, sodium aq. fluoride and hexa:fluoro-aluminate and specified metal oxide(s)
LENGD FIRST MED INS 28.11.74-SU-078143
A96 (06.09.78) A61k-05/02

Stonurtological material, used in dentistry as tooth cavity filler and crown cementing agent. The compsn. comprises (in wt. %): ZnO 80.00-82.00; MgO 10.00-13.00; Bi_2O_3 2.40-3.00; Al_2O_3 2.00-3.00; $Ca(OH)_2$ 0.20-0.30; MoO_3 0.10-0.30; Na_3AlF_6 0.20-0.50; NaF 0.10-1.00; SiO_2 1.00-3.40 and aq. acrylic acid copolymers soln. 0.28-0.42.

The addn. of SiO_2, $Ca(OH)_2$, Al_2O_3, MgO, MoO_3, Bi_2O_3 and Na_3AlF_6 increases the adhesion heat resistance and prophylactic characteristics of the material.
Rybavov A.I., Dunaevskii V.A., Vissarionava O.A. Bul. 36/30.9.78 28.11.74 as 078143 (2pp938)

UOIL= ★ D21 54000B/29 ★SU -625-712
Ash or platinum blonde shade shampoo compsn. - contg. specified surfactants, sodium chloride, water, orthophosphoric acid and acid black, blue, red and scarlet dyes
UKR OIL FATS IND 10.07.70-SU-458497
E24 (06.09.78) A61k-07/13

Shampoo that gives blond or grey hair ash or platinum tinge comprises (in wt. %): ethoxylated sodium lauryl-sulphated (I) 5-7; coconut oil dialkylol-amide (II) 3-4.5; sodium chloride 2-3; orthophosphoric acid 0.3-0.6; anthraquinone acid blue (III) 0.4-1.2; acid black C (IV) 0.15-0.3 water the rest.

Cpds. (I) and (II) act as surface active agents, NaCl is a thickening agent and (III)-(VI) are dyes giving above hues. The shampoo does not irritate the human scalp and produces no allergic reaction.
Yushchenko V.A., Gabrielyan D.A., Tsvirenko L.K. Bul. 36/30.9.78 10.7.70 as 458497 (2pp938)

COLG ★ D21 54423B/29 ★US 4160-022
Tooth-paste contg. sodium bi:carbonate as main abrasive - gives a coarse granular effect, and does not generate gas on storage
COLGATE PALMOLIVE CO 30.03.78-US-891776 (20.08.73-US-389827)
Q34 (03.07.79) A61k-07/18 B65d-81/24 B65d-85/14

A dental cream in an unlined Al tube contains $>$20% ium bicarbonate, $>$1% of a second abrasive which do not react with the bicarbonate or the tube to form gas is silica, alumina, calcined alumina, a silicate or a bonate, and 0.01-1% fluorine in the form of sodium p ium, lithium, ammonium or amine fluoride, monoflu phosphates, fluorsilicates, fluorozirconates, fluroge -tes or mono-, di- or triethanolamine hydrofluoride. ratio of bicarbonate to water is 3-6:1.

The prod. has a unique granular texture and appea and leaves the mouth feeling clean. It does not gener gas on storage. 30.5.78 as 891776 Div. ex. 3937321 (+15.9.75, 28.11.73, 20.8.73-US-613397, 419741, 38 (9pp955)

GENM ★ D21 54438B/29 ★US 416
Plaque inhibiting compsn. esp. chewing gum - contg. sulphate, stearoyl-2-lactylate, zinc cpd. and cinnamon, pepper or spearmint oil
GENERAL MILLS INC 28.11.77-US-855535
(03.07.79) A61k-09/68

A chewing gum comprises 0.001-15 wt. % of an alkyl sulphate salt, 0.001-15 wt. % of a stearoyl-2-lactylate 0.001-5 wt. % of a zinc cpd., 0.05-10 wt. % of a plaque hibiting flavouring which is cinnamon oil, pippermint c spearmint oil, and 10-95 wt. % of gum base. The comp removes dental plaque and inhibits its formation.

The alkyl sulphate pref. contains 10-18C atoms. T cations of the surfactant salts are pref. Na, K, Ca, M ammonium and substituted ammonium. A wide variety Zn salts may be used; the phenolsulphonate, oxide and earate are pref. The pref. sweetening agents are xylit sorbitol and/or mannitol. Artificial sweeteners e.g. harin, dihydrochalcones may also be employed. 28.11 as 855535 (7pp955)

See Also

D13 EP ---2882 D13 US 4159952 D13 US 4159988

D22: BANDAGES; DRESSINGS

KROY/ ★ D22 52566B/29 ★BE -874-567
Binder-contg. fibrous sheet mfr. - for sanitary towels, beverage containers, laminates
KROYER K 02.03.78-GB-008253
A81 F04 (02.07.79) B29j

The prepn. of fibrous products by dry deposition, comprises a gaseous medium contg. the suspended fibrous material across a gas-permeable shaping surface so as to form a fibrous sheet thereon. A binder is incorporated in the sheet by contacting the binder with the fibrous material before or during the formation of the fibrous sheet on the shaping surface.

Used for the prodn. of fibrous products where the ratio between the fibres and the binder varies between large limits. The fibrous products may comprise two or three fibrous sheets formed separately by separate fibre distributors. The sheets may be compressed to form sanitary towels and other body care products. 2.3.79 as 874567 (-pp004)

HARN ★ D22 52577B/29 ★BE -874-726
Disposable napkin folding into breeches - has strips at leg openings constricting elastically only when fluid is excessive
HARTMANN P AG 11.03.78-DT-810680
A83 F07 P21 (02.07.79) A41b

A disposable napkin folding into breeches for an infant or a sick person in bed or being transported, consists of an outer impermeable film, an absorbent wadding or pad of paper, etc. and a lining which is permeable to moisture and which is secured to the outer film along its edges. layer of elastic material is provided on the marginal zo of each leg opening.

The handicap of similar napkins that the legs of the w rer are constricted for the whole period of its use, so t the circulation may be obstructed, and the skin may be irritated, is eliminated.

The layer in the marginal zone of the leg opening is a strip of flexible material which in the dry state is inelas ic. It only becomes elastic when liquid tending to excee that which can be absorbed is present. It then tightens zones of the leg openings. 9.3.79 as 874726 (17pp1014)

HENK D22 11148T/07 =DS 2052-3
Quaternary ammonium base solns - for disinfecting purposes
HENKEL KG AUF AKTIEN 24.10.70-DT-052321
*E16 (12.07.79) *BE-770-927 +C07c-91/26 C07c-93/04*

Solns. of quaternary ammonium hydroxide in which at le st 1 aliphatic radical contains $>$ 3C are prepd. by reacti amines of formula R_1R_2NH at 40-100 °C under pressure with ethylene oxide, in a molar ratio of $>$1:1(1+n) n bei the no. of active H-atoms in the ammonia molecule.

The reaction is carried out in the presence of $\geqslant$5 mo water per mol. amine but in the absense of alkoxylation catalysts. In the formula R^1 = aliphatic 4-24C radical and R^2 = H or aliphatic 1-24C radical.

The solns. prepd. have good anti-microbical properti and are useful disinfectants. 24.10.70

D22 00230Y/01 =DS 2537-303
uting iodine in iodophor pref. for sterilising lenses - using aq. ontg. sorbic acid and EDTA
W PHARMACEUTICAL 02.06.75-US-582762
+R21 (12.07.79) *DT2537-303 A61l-13

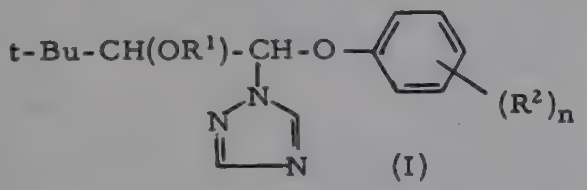
rile aqs. soln. for releasing available iodine contain an iodopher (I) at a controlled rate e.g. to sterilise ct lenses, contains (a) 0.01-5 wt.% sorbic acid or a -sol. salt thereof and (b) EDTA or a water-sol. salt of. In a pref. embodiment, the soln. also contains 05 - 10 wt.% (I) 0.0001-20 wt.% of a water-sol. iod- nd 0.001-25 wt.% PVA as well as 0.1-2 wt.% of an onium or alkali(ne earth) metal salt of a B acid to lise the soln. (which should have a surface tension of dynes/cm^2). 21.8.75 as 537303 (6pp922)

★ D22 52775B/29 ★DT 2800-739
gistic preservative compsns. - contg. tris-hydroxymethyl- nethane and 2 methyl-3-oxo-5-chloro-1,2-thiazoline
CILLOFAB DR BODE CO 09.01.78-DT-800739
0 E16 G02 (E13 G03) (12.07.79) A01n-09/22 C02b-01/18

ervative compsns. contain 10-30% (pref. 20%) tris- oxymethyl)nitromethane (I) and 0.1-5% (pref. 1.7%) thyl-3-oxo-5-chloro-1,2-thiazoline (II).
ompsns. can be used in cutting oils, glues, sizes, ner dispersions and paints, in the pulp and paper stry (e.g. for preserving staining colours), and for strial water treatment. Combinations of (I) and (II) synergistically increased bactericidal and fungicidal rity and greatly improved dermatological compatibility. 78 as 800739 (8pp367)

★ D22 52917B/29 ★EP ---2-671
d. triazolyl glycol ether derivs. - used as fungicides for cting plants and wood
ASF AG 29.12.77-DT-758784
02 E13 F09 (11.07.79) A01n-09/22 C07d-249/08
E(BE, CH, DT, FR, GB, IT, LU, NL, SW).

zoles of formula (I) and their salts and metal com- es are new



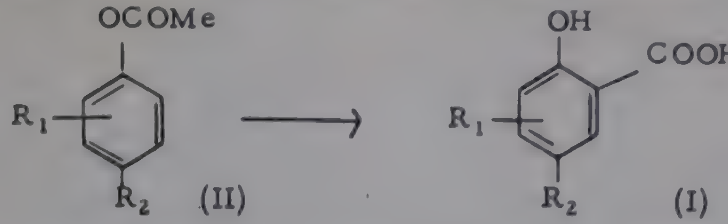
(I)

is 1-5C alkyl, 3-5C alkenyl, 3-5C alkynyl or benzyl substd. by halogen, alkoxy or CF$_3$;
s halogen;
1 or 2).

) are broad-spectrum fungicides, esp. active against t-pathogenic fungi. They are partic. active against siphe graminis, E. cichoriacearum, E. polygoni, osphaera leucotricha, Uncinula necator, Sphaerotheca nosa, Puccinia spp., Hemileia vastatrix, Uromyces eseoli, Ustilago nuda, U. tritici and Tilletia tritici. lication rate is 0.01-3, esp. 0.01-1 kg./ha. (I) have d plant compatibility.
I) can also be used for protecting materials, esp. d, against attack by Basidiomycetes, e.g. Coniophora eana, Merulius lachrymans, Poria monticola, Lenzites bea, L. abietina, Trametes versicolor, Armillaria lea, Stereum purpureum and Fomes annosus.
12.78 as 101486 (34pp941).
ISR: DT2600799; DT2720949.

D22 03944B/02 =EP ---2-834
cylic acid derivs. prepn. - by fusing phenyl acetate with e.g. um carbonate and carbon di:oxide, useful as antiseptics and stuff intermediates
MERCK & CO INC 29.12.77-US-865563
805 E14 (11.07.79) *US4131-618 C07c-65/14 +C07c-51/15
: E(BE, CH, DT, FR, GB, LU, NL, SW).

epn. of salicylic acid cpds. of formula (I) is carried by fusing an aryl acetate of formula (II) with anhydr- K$_2$CO$_3$ or Na$_2$CO$_3$ under anhydrous conditions in the ence of CO$_2$ at a pressure of 0-500 (pref. 50-400) psig and a temp. of 150-250°C (pref. 150-200°C):



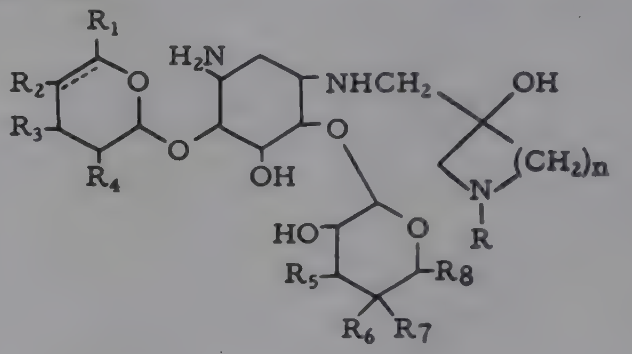
(where R$_1$ is H, 1-4C alkyl, 1-4C alkoxy, PhCH$_2$, 2-4C alkenyl or halogen;
R$_2$ is H or phenyl substd. by 1-5 halogen atoms and a 1-4C alkyl or alkoxy gp.).

The process is esp. useful for preparing 2',4'-difluoro-4-hydroxy-1,1'-biphenyl-3-carboxylic acid (Ia) which is an anti-inflammatory agent and analgesic. Salicylic acid itself is useful as an antiseptic and a dyestuff intermediate.

The process is simple and gives high yields, e.g. > 90 % of (Ia).
29.12.78. as 101862 (13pp367).
(E) ISR: US 2816137.

SHIO ★ D22 52972B/29 ★EP ---2-835
Amino-glycoside derivs. - useful as broad spectrum antibacterials for therapy, as disinfectants etc.
SHIONOGI KK 29.12.77-JA-158496
B03 C02 (11.07.79) A61k-31/70 C07h-15/22
D/S: E(BE, CH, DT, FR, GB, NL).

Aminoglycoside derivs. of formula (I) and their acid-addn. salts are new:



(I)

(R is H, 1-5C alkyl or aralkyl;
R$_1$ is CH$_2$NH$_2$, CH$_2$OH, MeCHNH$_2$ or MeCHNHMe;
R$_2$, R$_3$ and R$_6$ are H or OH;
R$_4$ is OH or NH$_2$;
R$_5$ is NH$_2$ or MeNH;
R$_7$ is OH or Me;
R$_8$ is H or CH$_2$OH;
n is 1-3; and
the broken bond is an opt. double bond).

(I) are broad-spectrum antibacterials, esp. useful against resistant bacterial strains, for use as therapeutic agents; they are also useful as disinfectants, in feedstuffs etc. Dose is 0.01-5g daily parenterally.
28.12.78 as 101867 (20pp1248)
(E) ISR: FR2240015; FR2369295.

FMCC D22 29650B/15 =EP ---2-958
Aliphatic di:peroxy-di:carboxylic acid prodn. - by oxidising di:carboxylic acid with hydrogen peroxide in phosphoric acid
FMC CORP 30.12.77-US-866091
E17 (11.07.79) *US4147-720 +C07c-179/10
D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Prepn. of satd. 6-16C aliphatic diperoxydicarboxylic acids (I) is carried out by reacting the corresp. dicarboxylic acid (II) with H$_2$O$_2$ in H$_3$PO$_4$ using a (II):H$_2$O$_2$ molar ratio of 1:2-5 (pref. 1:3-4).

The reaction is carried out by (a) forming a reaction slurry using sufficient H$_3$PO$_4$ to provide an easily stirrable reaction mixt. and to predissolve (II) at 60-100°C; (b) agitating the slurry at 20-70°C during the reaction period; and (c) separating (I) from the slurry.

Cpds. (I) are useful as catalysts, oxidising agents, bleaches and disinfectants.

The process is safe (no explosion risk), economic, allows the prod. to be isolated by simple filtration, and gives acceptable yields in relatively short reaction times. 27.12.78 as 300903.(16pp367).

(E) ISR: FR1432773; GB905877; US2813896.

AIRW- ★ D22 53043B/29 ★EP ---3-00

Uniform release vapour dispensing system - comprising an aq essential oil dispersion in contact with a hydrophilic membrane

AIRWICK AG 27.12.77-US-864980

A97 P34 (A18 A25) (11.07.79) A61l-09/04

D/S: E(CH, DT, FR, GB, IT, LU).

A vapour dispensing system comprises a closed reservoi with at least a part of the wall formed from a hydrophilic membrane, contg. an aq. dispersion of an essential oil-type odour-controlling agent in contact with the internal membrane surface. The membrane is mechanically resistant to water up to 60°C and has an equilibrium water content of ⩾ 15 (pref. ⩾ 30) wt.%, calculated on the total membrane wt.

The membrane releases vapours of the odour-controlling agent and water into the atmospheres at a controlled, uniform rate. Fractionation of components of the agent, and of the agent and water, is low. Exhaustion of the agent is easily detected, avoiding waste, and the system i easily disposed of when empty.

22.12.78 as 810033 (40pp558).

(E) ISR: US3815828; US3578545; US3688985; US3685734; US3567118.

INTO D22 83495X/45 =GB 1548-610

Disposable diapers formed from matted fibres - using a pair of porous belts passed over suction chambers defining contours of layers which are brought into contact

INT PAPER CO 11.04.75-US-567124

*F04 +P21 P32 Q39 (18.07.79) *DT2615-434 D01g-25*

Appts. for air-laying fibre to form a composite pad, e.g. for disposable diapers, comprises a pair of endless foraminous carriers passing through a forming chamber over air removal openings. The carriers pass between a pair of rolls at the chamber outlet, and air-entrained fibre is directed between the carriers through the chamber inlet.

The carriers converge within the chamber, and air is drawn across the exposed surfaces of webs within the chamber to form excess fibres and develop level web surfaces, giving better joining of the webs as their surfaces are brought together and pressed. 9.4.76 as 014523 (8pp1358).

SQUI D22 63139X/33 =GB 1548-678

Three layer medical bandage - comprising hydrocolloid contg. pressure-sensitive adhesive layer, semi-open cell foam layer, and water-impervious film layer

SQUIBB E R & SONS INC 28.07.75-US-599804

*A96 P34 +P32 P73 (18.07.79) *US3972-328 B32b-05/18 B32b-27/04 +B32b-25/08*

A bandage is prepd. comprising a pressure-sensitive adhesive layer, a layer of semi-open cell flexible polymeric foam attached to the adhesive layer, and a water-impervious flexible polymeric film attached to the opposite side of the foam layer.

Adhesive layer comprises a rubbery elastomer having a water-soluble or swellable hydrocolloid or mixt. of hydrocolloids, tackifier and plasticiser dispersed in it. Pref. hydrocolloid is polyvinyl alcohol, powdered pectin, gelatin, sodium carboxymethylcellulose, high mol. wt. polyethylene glycol, carboxypolymethylene or their mixts.

Bandage has advantage in that the hydrocolloid may absorb moisture such as perspiration and would exudate, permit its transfer to the outer surface and eventual evaporation. 5.7.76 as 027898(4pp931).

RUGG- D22 94630X/51 =GB 1548-714

Tampon compressing system - produces greater compression forces on the periphery than on the core of an absorbent wadding tampon

RUGGLI K AG 30.05.75-CH-006973

*F04 P32 +P71 (18.07.79) *DT2623-368 A61f-13/20*

A machine making tampons by radially pressing an elongate blank of wound wadding has pressing dies pivotably movable towards a central axis and each with two arcuate pressing surfaces of concave and convex shape converging towards a pressing edge parallel to the axis, leavin
arcuate gap when the dies are in compression posit
between each pair of dies.

A second set of dies are arranged alternately wi
first and are pivotable within the gaps, with a groov
forming a concave pressing surface. The dies in ea
are coupled to be at equal distances from the axis.
ematical relationships are given for surface curvatu
relation to blank and tampon dimensions. 25.5.76 a
021524(12pp1358).

SMIN D22 02361Y/02 =GB 1

Synthetic gauze material prepn. - from polyethylene and hig resistant polystyrene

SMITH & NEPHEW LTD 16.06.75-GB-025659

*A97 F07 +P32 P34 P73 (18.07.79) *DT2626-874 D04h-13*

Novel net materials are integrally formed in a synth
polymeric material. They have straight smooth par
longitudinal ribs, interconnected by(partly) fibrillate
strands so as to exhibit fibres non-uniformly intersp
with differently sized voids. The material is a blend
⩾2 incompatible polymers which assists fibrillation
of the interconnecting strands. Pref. the net has a
2-10, esp. 5-8 gsm.

Materials are used e.g. in sanitary towels, dispo
diapers or incontinence pads. 15.6.76 (9pp974).

JOHJ ★ D22 53123B/29 ★GB 20

Disposable diaper with shaped absorbent pad - havin indentations nearer front for improved fit

JOHNSON & JOHNSON 29.12.77-US-865464

F07 P21 P32 (18.07.79) A41b-13/02 A61f-13/16

A disposable diaper comprises a porous facing layer
absorbent pad with sides inwardly of the layer sides,
a water-impermeable backing sheet coextensive with
layer and adhered to it in the margins beyond the pad
pad is rectangular and has a indentation along each lo
side.

The indentations are opposite each other and 1/3
distance from one pad end to give a shorter front and
er rear part for improved fit with minimum loss of a
-tive capacity. The pad sides immediately adjacent
indentations in the central part are parallel to one an
28.12.78 as 050124(7pp1358).

KENY/ ★ D22 53233B/29 ★J5 40

Treating timber by diffusing in gaseous ammonia formaldehyde - which react to form hexamine which then with resin acids in the wood, esp. larch, to form resinate

KEN Y 10.11.77-JA-135157

A97 C03 F09 P63 (06.06.79) B27k-03/20

Method comprises firstly diffusing gaseous ammonia
then diffusing gaseous formaldehyde to the timber. B
this method ammonia and formaldehyde are condensat
polymerised in the timber to form hexamine. Thus fo
ed hexamine can react with resin acid in larch and the
med resinate is uniformly distributed and absorbed ar
fixed in the timber. Further, the ammonia reacts wi
phenol cpds., sugars, etc. in the timber and timber
glossy black colour can be obtd.

The method can be effected simply using gaseous p
agents without a special pressing device and is free o
ution problems. Hexamine exhibits antimicrobial effe
and the resinate-contg. treated timbers are resistant
cracking, warping, distortion, etc. Thus inexpensive
is improved to a high quality timber.

Specifically, gaseous ammonia is first diffused into
timber and the diffused ammonia promotes the diffusio
formaldehyde. After the diffusion the timber is heate
with steam and the resinate is liquefied and distribute
uniformly throughout the timber. 10.11.77 as 135157
(2pp5)

NISB ★ D22 53266B/29 ★J5 407

Sterilising plant growth medium by heating - with sep treatment of phosphate components to avoid scaling of appts.

JAPAN TOBACCO & SALT PUB 16.11.77-JA-136743

(06.06.79) C12b-03/16

The method for sterilisation of medium (I) for plant ti
culture, comprising sterilisation of phosphate (II), wh
a component in (I), separately from sterilisation of (I

g. The appts. used comprises (i) 3 vessels (III); (a) ntg. components other than (II); (b) contg. water and ntg. (II)-solution; (ii) a pump for sending them to r for sterilisation and (iii) a heater.

en (I) is heated for sterilisation, pptes and scale form and on the surface of heating surface. This is caused reaction between (II) and calcium and/or magnesium and prevents this reaction. (I) is sterilised by (A) lising (I), contg. components other than (II), (B) washe surface of sterilizer with water, (C) sterilising (II)- and (D) washing the surface of steriliser with water. .77 as 136743 (6pp42)

★ D22 53301B/29 ★J5 4070-970

sation of plant germination box - by stacking boxes, and using yl bromide to kill insects and bacteria throughout soil etc.

JIN CHEMICALS KK 14.11.77-JA-135666

3 E16 P14 (07.06.79) A01m-13 A01n-07

lisation for breeding box using a fumigation method aimed in which breeding boxes are first stacked, the ed breeding boxes, the upper side of which is provi- with a small can containing methyl bromide is covered a vinyl cover entirely, and then the stopper of the yl bromide can is detached from the outside through inyl cover to fumigate the methyl bromide within the s and furthermore throughout the soil in the boxes, in h the proper administration of methyl bromide is 100 0 g/m^3.

Method completely sterilises the breeding boxes and in a short time of 3-4 days without causing any dam- to grain seeds themselves, thus assuring both the co- ete insect pest control and bacterial sterilisation and smooth germination and growth of seeds. 14.11.77 as 66 (3pp117)

- ★ D22 53706B/29 ★J5 4073-119

gicide and descaling agent - for convection type bath tub, contg. um percarbonate, chelating agent and surfactant etc.

LEAN LIFE KOGYO KK 18.11.77-JA-139106

03 E34 (D15) (12.06.79) A01n-11

gicide and descaling agent for convection type bath tub, tains as major component sodium percarbonate, fixed unt of chelating agent and a small amount of surfact- and aroma.

The present agent kills bacteria and removes organic inorganic scales, generated inside heat exchanger of convection type bath tub. Prior art use of sodium hy- hlorite, chromic acid or hydrogen peroxide leads to dling problems as these chemicals are toxic and have nulating smell. The present agent can be used safely simply in general household without corrosion of metal. 11.77 as 139106 (2pp108)

TW ★ D22 53803B/29 ★J7 9016-561

regnation of wood with liq. chemical e.g. preservative or plastic compressing wood to reduce its volume then immersing in the id

MATSUSHITA ELEC WORKS 21.11.69-JA-093713

A81 E14 F09 P63 (23.06.79) B27k-03/04

thod comprises compressing wood to reduce its volume immersing the wood in liquid chemical. The compres- n can be carried out hand press. hydraulic press, gle press, etc. The degree of compression is 10-70% ef. 30-60% of the original volume, depending on type of od, water content and direction of compressive force. e compressed wood is immersed in liquid chemical at rmal temp. and pressure for 10-60 min.

Used for impregnating wood with cresol as preservative, enolic resins for reinforcement, vinyl monomers for oducing wood-plastic composite etc. The elastic return the compressed wood in the liquid chemical enables ep and uniform impregnation of a wide variety of chem- als, without use of vacuum and/or high pressure. .11.69 as 093713 B27k-3/04 (23.6.79) MATSUSHITA LEC. WKS. (5pp83)

OLD/ ★ D22 53805B/29 ★J7 9016-566

andage continuously dispensing drugs through skin or mucous embrane - comprises backing layer, pressure-sensitive adhesive yer and drug-storage layer having drug permeable wall

30.06.71-JA-047953

Bandage for dispensing medicine through skin or mucous membrane continuously at a controlled dose rate comprises backing material, pressure-sensitive adhesive layer, and medicine storage layer with medicine-permeable wall. 30.6.71 as 047953 A61f-13/02; A61l-15/06 (23.6.79). GOLDBY, S.D. (10pp83) (J4 8015388)

BARH D22 16041T/10 #J7 9016-567

Resterilizing contact lens solns - contg edta

BARNES HIND PHARM INC 19.06.68-US-738131

*A89 B05 +P34 (A14) (23.06.79) *US3639-576 A61k-09/08*

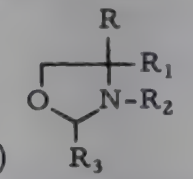
COMM D22 81838W/50 =J7 9017-003

Inhibiting viruses and microorganisms with bicyclic) oxazolidines - including new N-nitroalkyl oxazolidines

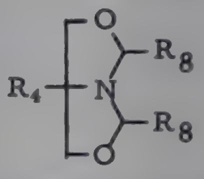
COMMERCIAL SOLVENTS 13.05.74-US-469200

*C02 E13 +P34 (27.06.79) *DT2512-980 A01n-09/22 C07d-263/04*

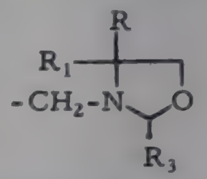
The growth of microorganisms and viruses is regulated by treatment with oxazolidines of formulae (I) or (II) (R and R_1 = H or 1-2C alkyl; R_2=H, 1-3C alkyl or $CH_2-CR_6R_7.NO_2$; R_6=H or 1-2C alkyl; $R_7=CH_3$, CH_2OH, C_2H_5 or a gp. of formula (III); R_3=H, 1-3C alkyl or hydroxy phenyl; $R_4=CH_2OOCR_5$; R_5=1-2C alkyl or alkenyl; R_8=H or 1-2C alkyl). Cpds. of formula (I) are new where R_2= $CH_2CR_6R_7NO_2$. (I) and (II) control growth of viruses, bacteria, fungi and algae e.g. in starch glues, drilling muds or water-dilutable cutting oils. Application is 10-1000, generally 100-500 µg/ml. 27.3.75 as 036152 (clg. 13.5.74-US-469200) A01n-9/22; C07d-263/04 (27.6.79) COMMERCIAL SOLVENTS CORP. (4pp) (J5 0145527)



(I)



(II)



(III)

URGE- ★ D22 B/29 ★RU --65-877

Members and organs preservation in viable state - using hyperbaric chamber maintained at specific temp. and pressure

SPITALUL URGENTA 13.08.73-RU-075790

P34 (30.10.78) A01n-01/02 A61m-01

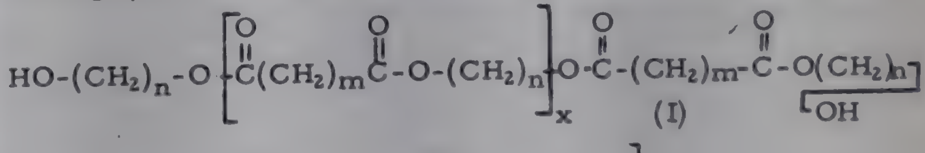
ETHI D22 36521V/20 =SU -625-579

Multifilament thread for use in ligatures - coated with a high molecular weight polyester having at least two carbon atoms between ester bonds of polymer chain

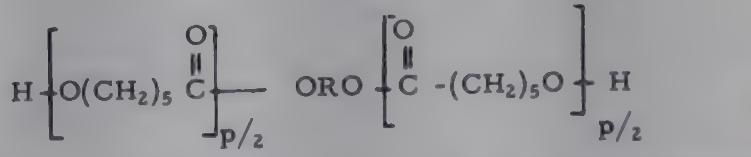
ETHICON INC 03.11.72-US-303588

*A96 F02 P34 +P31 (A23) (08.08.78) *BE-806-869 A61l-17*

The thread is braided, twisted or sheathed and is coated with polyester of 1000-15,000 mol. wt. and of formula (I) or (II) or is derived from adific acid and 1.4-butanediol, having ≮2 C atoms between ester bonds of polymer chain



$$HO-(CH_2)_n-O\left[\overset{O}{\overset{\|}{C}}(CH_2)_m\overset{O}{\overset{\|}{C}}-O-(CH_2)_n\right]_x O-\overset{O}{\overset{\|}{C}}-(CH_2)_m-\overset{O}{\overset{\|}{C}}-O(CH_2)_n-OH$$ (I)



$$H\left[O(CH_2)_5\overset{O}{\overset{\|}{C}}\right]_{p/2}ORO\left[\overset{O}{\overset{\|}{C}}-(CH_2)_5O\right]_{p/2}H$$ (II)

(where n is 2-12; m is 2-8; X is the degree of polymerisation; R is a polymethylene gp.; and p is the degree of polymerisation). The thread is made of silk and the polyester coating represents 5 wt.% of the untreated thread, or the thread is made of polyethylene terphthalate, and the polyester coating represents 1 wt.% of the untreated thread.

Hunter A.W., Thompson D.R., Bul. 35/25.9.78 2.11.73 as 978095 (3pp)

MORO/ ★ D22 54002B/29 ★SU -625-714

Chemical steriliser for surgical instruments - has spring-loaded plates for raising and lowering basket into which the instruments are placed

MOROZ M A 31.01.77-SU-446695

P34 (21.08.78) A61l-03

Device for the chemical sterilisation of surgical instrumen-ts comprises a cylindrical vessel, inside which is a basket provided with an attachment for raising and lowering it. The sterilisation quality of the instruments is increased and convenience of use is guaranteed, by making the raising/lowering attachment as spring-loaded plates, one end of each of which is fastened to the basket, while the other end is shaped like a hook. On the outside walls of the plates there are extra hooks which ensure that the basket can be fixed on to the edge of the container.
Moroz M.A., Bul. 36/ 30.9.78 31.1.77 as 446695 (2pp29)

TEXT- ★ D22 54301B/29 ★SW 7710-740
Oxidised cellulose or its salts for sanitary purposes - prepd. by oxidation by nitric acid with sodium nitrite catalyst, followed by dehydration, impregnation and irradiation
STATNI VU TEXTILNI 26.09.77-SW-010740
A11 (A96) (30.04.79) C08b-15/02

TEXC ★ D22 54408B/29 ★US 41
Prepn. of alkane di:amine(s) used in slime control - by treatm
vicinal nitro-ketone(s) with prim. amine hydrochloride,
hydrogenation
TEXACO INC 31.10.77-US-847193
C03 E16 J01 (03.07.79) C07c-85/08

Alkane diamines (I) are prepd. by treatment of a vici
nitroketone of formula $RCOCH(NO_2)R_1$ (II) with a prim
amine. HCl (III). The resulting inter. (IV) (a nitroalk
iminoalkane or nitroxoximinoalkane) is then catalytic
hydrogenated to give (I). In the formula R is 1-20C a
R_1 is H or 1-20C alkyl.

Process gives high yields of high purity and quality
from stable intermediates. The known (I) are useful
intermediates for corrosion inhibitors, and as slime
trol agents and mineral flotation or asphalt emulsifica
agents. 31.10.77 as 847193 (4pp478)

See Also

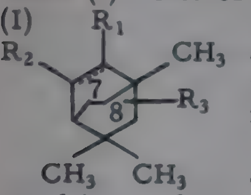
D15 J5 4072767 D16 J5 4073182

D23: OILS; FATS; WAXES

GIVA ★ D23 52626B/29 ★CH -611-517
Perfume contg. tetra:methyl-bi:cyclo-(2,2,2) octane derivs. - esp. for enhancing woody notes, useful in soaps, cosmetics etc.
GIVAUDAN L & CIE SA 29.08.75-CH-011242
E15 (15.06.79) A61k-07/46

Perfume compsn. contains a bicyclo-octane deriv. of formula (I). One of R_1 and R_2 is hydrogen, the other is CH_3. R_3 is HCO, CH_3CO, CH_2OH, $CH(OH)CH_3$, acetoxymethyl or 1-acetoxyethyl, and is present at 7- or 8-posn. The dotted line is an opt. double bond.

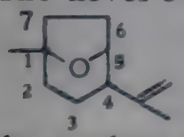
(I)



(I) have a warm, tobacco and amber like aroma of very good persistance and can be used in perfumes, soaps, cosmetics etc. They are esp. use-ful in cosmetics for males to enhance woody notes, and are prepd. in high yield from readily available starting materials. 29.8.75 as 011242 (4pp1251)

FIRM ★ D23 52633B/29 ★CH -611-624
1-Methyl 4-isoprenyl 8-oxa bi:cyclo (3.2.1) octane - used in perfume and flavouring compsns.
FIRMENICH SA 00.00.77-CH-007901 (00.00.74-CH-016359)
E13 (D25) (15.06.79) C07d-493/08 C11b-09

The novel 8-oxa bicyclo[3.2.1]octane cpd. has the formula

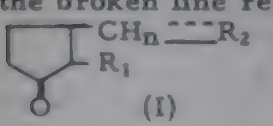


The cpd. is used in perfume compsns., esp in soaps and detergents and is stable to alkali.

The cpd. is prepd. by (a) reacting dehydrolinalol with an alkyl Mg halide and reacting the product with ethyl orthoformate; (b) hydrogenating the 1,1-diethoxy-4,8-dimethyl-4-hydroxy-non-2-yne-7-ene (I) to 1,1-diethoxy-4,8-dimethyl-4-hydroxy-non-7-ene (II) and cyclising this with an acid cyclisation agent, esp. $KHSO_4$.
1.1.78 as 7901/77 Div ex 16359/74 (3pp597)

FIRM ★ D23 52641B/29 ★CH -611-868
2-Alkyl 3-hydroxy-butyl cyclopentanone(s) and their dehydration prods. - used in perfumes and flavourings
FIRMENICH SA 00.00.77-CH-011846 (00.00.75-CH-007668)
E15 (29.06.79) C07c-49/40

The novel cyclopentanone cpds. have formula (I). In (I) the broken line represents an opt. double bond; R_1 is 1-6C alkyl; when n is 1, R_2 is $=C(CH_3)_2$; when n is 2 R_2 is $-C(CH_3)=CH_2$ or $-C(CH_3)_2-OH$

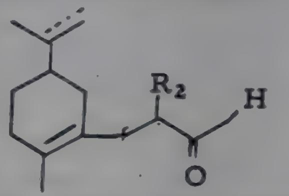


(I)

Cpds. in which n is 2 and R_2 is $-C(CH_3)_2OH$ are prepd. from the 1-protected keto 3-($-CH_2COO$alkyl) substd. cpds. and methyl magnesium halide followed by hydrolysis of the dialkoxy or ethylenedioxy protected keto gp. The unsatd. cpds. are prepd. by dehydration of the above and sepn., esp. us
$NaHSO_4$ or $KHSO_4$. 1.1.78 as 011846 (3pp597)

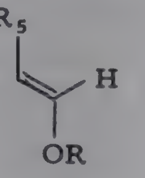
GIVA D23 60546U/41 =DS 231
Perfumery compsns - contg 3-isopropyl - or 3-isoprop
cyclopentene derivs
GIVAUDAN L & CIE SA 17.03.72-CH-004040
*E15 (12.07.79) *DT2313-017 C07c-47/40 C11b-09*

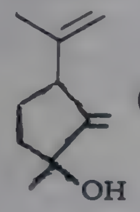
Cyclopentenes of formula (I) (where R_2 is H, lower alkyl or lower alkylidene and the dotted line indicates an opt double bond) are novel cpds. useful in per-fumes and having a fresh wood, cedar-like, camphorou
and herbal notes. They may be prepd. by reacting (II)
with an enol ether (III)



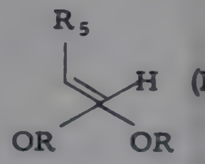
(I)

(III)





(II)

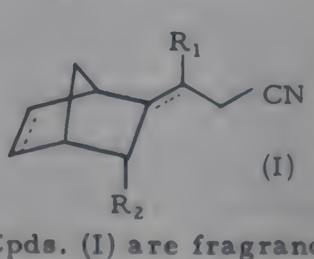


or its corresponding acetal (IV) in the presence of an a
catalyst (R is lower alkyl and R_5 is H, lower alkyl or l
alkenyl) and opt. hydrogenating the product. 15.3.73 a
313017 Div. ex 2365939 (4pp922)

GIVA D23 05947B/03 =EP —2-
Perfume compsns. having floral and spicy odours - contg. 2
cyanoethylidene) 3-methyl bi:cyclo 2.2.1) heptene-5 cpds.
GIVAUDAN L & CIE SA 15.12.77-US-860660
*E15 (11.07.79) *US4132-677 +A61k-07/46 C07c-121/46*

D/S: E(CH, DT, FR, GB, NL).

Bicyclo[2,2,1]heptane derivs. of formula (I) are new:



(I)

(where R_1 and R_2 are
or Me and the dotted
lines are optional bond

Cpds. (I) are fragrances with spicy and floral notes.
They can be used as components of perfumes, cosmetic
soaps, detergents, etc.

78 as 101703 (22pp367).
R: DT2333265; DT2302219; DT2656065;
12288.

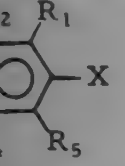
D23 01402Y/01 =GB 1548-59

ubstd. aldehydes, ketones and alcohols prodn. - by reacting alogen cpds. with an unsatd. alcohol using a palladium st

/AUDAN L & CIE SA 16.06.75-US-587183

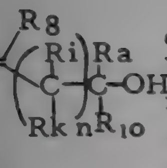
*(18.07.79) *NL7606-511 C07c-33/06 C07c-49/76*

aldehydes-ketones or-olefinic alcohols are prepd by ing an aryl cpd of formula (I) (where X is Br or I and



R_{1-5} are each alkyl, cycloalkyl, aryl, nitro, nitrile, formyl carboxy NH_2, OH hydroxyalkyl alkoxy etc) with an alcohol of formula (II).

(Where R_{6-10} and R_1 and R_k are H, 1-10C alkyl. 3-10C cycloalkyl or aryl and n=0-10).



The reaction is in the presence of (1) Pd catalyst in the form of finely divided metal, Pd salt or Pd complex; (2) a base which is inorganic (bi) carbonate or aliphatic tert amine and (3) if required a non acidic polar solvent. This provides the required carbonyl cpd an alcohol which can be opt ogenated.

he prods can be prepd. in high yield. 16.6.76 as 78(27pp964).

D23 47794X/25 =GB 1548-67

-Trimethyl-2-cyclohexenone odouriferous compsns. - have a n, camphorous odour

IVAUDAN L & CIE SA 03.07.75-US-592963

*15 (18.07.79) *US3962-148 A61k-07/46*

agrance compsn. is prepd. comprising an olfactory ct amt. of 4.4.b-trimethyl 2-cyclohexenone in amt. 80%, and ⩾ 1 other olfactory agent.

Pref. 60 wt.% 4.4.6-trimethyl 2-cyclohexenone is added compsn. Prepn. is by reacting isobutyraldehyde with hyl isopropenyl ketone in aq. soln. using a hydroxide e as catalyst. Equimolar amts. of reactants are used, rtion of methanol render the soln. more homogeneous sodium or potassium hydroxide as the base catalyst. additional acid catalysed dehydration step can be used to vide an improved yield.

Fragrance compsn. can be used as a substitute for cedar oil, having a natural, warm, herbaceous, minty, nphoraceous note. 2.7.76 as 027662(6pp931).

A D23 47794X/25 =GB 1548-676

6-Trimethyl-2-cyclohexenone odouriferous compsns. - have a m, camphorous odour

GIVAUDAN L & CIE SA 03.07.75-US-592963

*E15 (18.07.79) *US3962-148 C07c-49/42*

, 6-trimethyl 2-cyclohexenone is prepd. by reacting butyraldehyde with methyl isopropenyl ketone or with ydroxymethyl 2-butanone in the presence of a base, and ydrating the reaction product in the presence of an acid alyst.

4, 4, 6-trimethyl 2-cyclohexenone may also be prepd. by ydrating 5-hydroxy 2, 4, 4-trimethyl-cyclohexanone in presence of an acid catalyst, where 0.01-2.5 wt.% of d catalyst is used. Acid catalyst is phosphoric acid, oluenesulphonic acid, citric acid, oxalic acid or tartaric d.

Prod. has the warm, herbaceous, minty, camphoraceous tes normally found in cedar leaf oil, and is used as an ourising agent. 2.7.76 as 49167/77 Div. ex. 1548675 p931).

SH- ★ D23 53212B/29 ★J5 4070-373

ent-retaining, decorative, strong moulding - comprises lyolefin, esp. polyethylene resin and a powder contg. a fragrant d.

NIPPON SHASHIN INSA 16.11.77-JA-138077

A17 E14 P73 (A60 E15) (06.06.79) B29d-31 B32b-27/18

patterned moulding inhibiting scent release on one or th sides, is obtd. from a mixt. of a polyolefinic resin d 2-10 wt.% of a powder contg. > 2 wt.% of adsorbed agrance.

extended time. The prod. has a decorative appearance and good mechanical strength.

Pref. the powder is porous SiO_2, Al_2O_3, etc. or is obtd. by adding a thermoplastic resin (dibenzylidene sorbitol, tribenzylidene sorbitol, etc.) to a perfume and hardening the mixt. The polyolefin resin is polyethylene, polypropylene, etc. and retains the scent to release it through the molecules; the fragrance is (ethyl)vanillin, (methyl) ionone, benzyl acetate, etc.; the pattern layer has no pores for better retention of scent; and by changing the thickness and area of the pattern, scent release is easily adjusted. 16.11.77 as 138077 (3pp119)

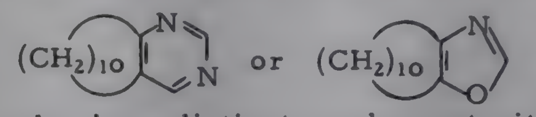
ROUR D23 24619W/15 =J7 9017-006

Musk scent compsns. - contg. 4,5-decamethylene-pyrimidine or 4,5 decamethylene-oxazole

ROURE BERTRAND DUPO 28.09.73-CH-013977

*E13 (27.06.79) *DT2445-387 A61k-07/46*

Heterocyclic cpds. contg. decamethylene gps. of formulae



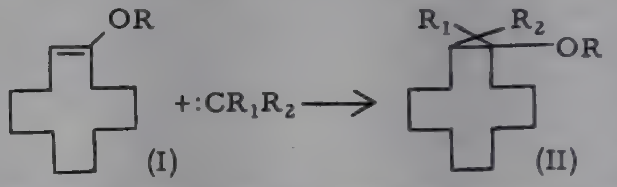
are used in perfumes, cosmetic compsns., soaps, etc., in amts. ⩽ 50 wt.%. These cpds. have distinct musk scent with ambergis- and tobacco note. 27.9.74 as 111328 (clg. 28.9.73-CH-013977) A61k-7/46 (27.6.79) ROURE BERTRAND DUPONT SA (2pp) (J5 0063147)

GIVA D23 49399S/30 =J7 9017-007

Bicyclo-(10 1 0)-tridec-1-yl-ethers used as perfume

GIVAUDAN L & CIE SA 15.01.70-CH-000515

*E15 (27.06.79) *DT2101-396 A61k-07/46*



(II), (where R= 1-4C alkyl and R_1, R_2=H, Me or Et), are new cpds with warm-wood, amber and musk smells which may be used in soaps, creams etc.

They are prepd. by reacting enol ether (I) with $-CR_1R_2$ or by replacementof the halogen atoms in (II, R_1=R_2= halogen) H, Me or Et. 13.1.71 as 113246 (clg. 15.1.70-CH-000515) A61k-7/46 (27.6.79) GIVAUDAN & CIE S.A., L. (5pp) (J5 0063149)

INFL D23 65209Z/00 =J7 9017-008

Alpha-methylenealdehydes prodn. - useful as perfumes

INT FLAVORS & FRAGR INC 25.01.66-US-522844

*E17 (27.06.79) *BE-693-136*

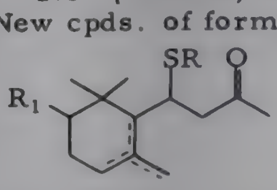
GIVA D23 40514T/25 =J7 9017-009

Ionone and irone derivs - as perfume and aromatic agents

GIVAUDAN L & CIE SA 08.12.70-CH-018130

*E15 (27.06.79) *BE-776-390 A61k-07/46*

New cpds. of formula:- (R is H or acetyl, R_1 is H or acetyl, R_1 is H or methyl, the dotted lines represents a double bond in any of the three indicated positions) are used either alone or in combination with cpds. in which -SR is absent as perfumes or aromatic agents. 8.12.71 as 133906 (clg. 8.12.70-CH-018130) A61k-7/46 (27.6.79) GIVAUDAN & CIE SA (9pp) (J5 1079738)



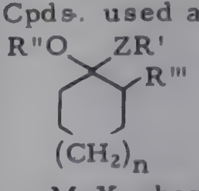
GIVA D23 33725T/21 =J7 9017-010

Carbocyclic odourants - giving intensity and consistency to perfumes

GIVAUDAN L & CIE SA 10.11.70-US-088494

*E15 (27.06.79) *BE-775-152 A61k-07/46*

Cpds. used as odourants have the general formula: in which R' is H or CH_3, R" is H or a lower alkanoyl gp., R''' is butyl, Z is one of -C=C-, -CH=CH-, or $-CH_2-CH_2-$, and n is 0, 1 or 2 They may be made by treating a cpd. of formula MZR' in which M is an alkali metal or MgX where X is halogen; M is alkali metal only when Z is -C=C- and then OH gp. is alkanoylated, or the triple bond is hydrogenated to a double or single bond, or both

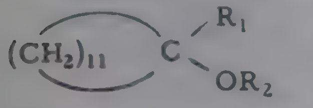


The odourants have odours of earth, wood, moss, cedar, vetiver or ambergris, and are used in perfumes, soaps and toilet preparations. 10.11.71 as 017833 (clg.

10.11.70-US-088494) A61k-7/46 (27.6.79) GIVAUDAN & CIE S.A. (20pp) (J5 1110047)

GIVA D23 31172T/20 =J7 9017-011
Cyclododecane ethers - useful in perfumes having eg woody notes
GIVAUDAN L & CIE SA 03.11.70-CH-016263
*E15 (27.06.79) *DT2152-016 A61k-07/46*

Title cpds. of formula (I): where R_1=1-3C alkyl, or 2-3C alkenyl; R_2=Me or Et are prepd. by reaction of a cpd. of formula /I:OR_2 is OH/ with a methylating or ethylating agent and possible hydrogenation. The ethers are used in perfumes compsns.



29.10.71 as 077690 (clg. 3.11.70-CH-016263) A61k-7/46 (27.6.79) GIVAUDAN & CIE SA (5pp) (J5 3009329)

POUE ★ D23 53862B/29 ★NL 7812-474
2,4-di:nitro-6-tert-butyl-3-methyl-anisole from nitration mixts. - by portionwise addn. of water with removal of the ppte. formed after each addn.
POUDRES & EXPLOSIFS 29.12.77-FR-039624
E14 (03.07.79) A61k-07/46 C07c-76/06 C07c-79/35

Musk ambrette (2,4-dinitro-6-tert. butyl-3-methylanisole) (I) is recovered from the crude reaction mixt. obtd. by nitrating 6-tert. butyl-3-methylanisole (II) by adding ⩽ 200 wt.% water wrt the nitrating agent used. The water is added in one or more portions, each portion contg. ⩽ 100 wt.% water wrt the nitrating agent used and after each addn. of water, the pptd. prod. is recovered.

The process allows practically pure (I) to be recovered in high yield from the crude nitration mixt. The prod. is not contaminated with the (coloured) impurities formed during the reaction. The process is simple to operate and does not require extraction with organic solvent as with prior art processes. The (I) is a useful perfume constituent. 22.12.78 as 012474 (10pp513)

POUE ★ D23 53863B/29 ★NL 7812-475
Prepn. of 2,4-di:nitro-6-tert. butyl-3-methyl-anisole - by nitrating 3-methyl-6-tert. butyl-anisole with a mixt. of acetic acid, acetic anhydride and nitric acid
POUDRES & EXPLOSIFS 29.12.77-FR-039625
E14 (03.07.79) A61k-07/46 C07c-76/02 C07c-79/35

2,4-Dinitro-6-tert. butyl 3-methylanisole (I) (musk ambrette) is made by nitrating 3-methyl-6-tert. butylanisole (II) with a ternary mixt. of acetic anhydride, acetic acid and HNO_3 at a temp. of 5-30°C, esp. 7-15°C. The original compsn. of the nitration agent is 30-50 wt.% acetic acid, 20-30 wt.% acetic anhydride and 25-45 wt.% HNO_3. The ratio nitrating agent:(II) is pref. 5:6.

Process gives high yields of the desired prod. (I) which is useful as a perfume component. Pure (I) is easily recovered from the nitration mixt. without complex recovery processes. The process is suitable for use on a technical scale. 22.12.78 as 012475 (11pp513)

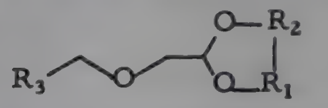
KURG/ ★ D23 54226B/29 ★SU -
Cotton seeds de:lintering - is controlled by aerosol of hydr
or nitric acid soln.
KURGULTSEVA L I 18.02.77-SU-450380
F01 (05.09.78) D01b-01/04

Both cotton seeds and lint are improved by delinting
HCl aerosol with a concn. of 30-37% or using HNO_3
concn. of 60-68%. The spray lasts 2-5 mins, and n
isation of denuded seeds of cotton is carried out with
30% concn. alkali soln.

Neutralisation with caustic soda does not affect th
ritional properties of oil extruded from the seeds.
separated lint is treated by conventional methods.
Kurgultseva L.I., Kagalovskii S.P., Rakhmatullin K
et al. Bul. 36/30.9.78 18.2.77 as 450380 (2pp89)

INFL ★ D23 54403B/29 ★US 41
Substd. oxy:acetaldehyde cyclic metal cpds. - useful in perf
and for synthesis of corresp. aldehyde cpds.
INT FLAVORS & FRAGR INC 03.05.78-US-902390 (30.06.
811480)
E13 (03.07.79) C07d-317/10

Acetal cpds. of formula (I) are new where R_3 is



(I)

in which the dotted bond is present or absent, and R_1
R_2 together form a 2-4C alkylene gp. esp. 1,2-ethyle
propylene or butylene or 2,3-butylene.

(I) are useful in perfumery. They may be hydroly
the corresp. aldehyde cpds., also useful in perfumer
are intermediates in a shorter route to these cpds. th
that known. 3.5.78 as 902390 (10pp955)

BADG ★ D23 54405B/29 ★US 41
Removal of polymer fines from tallow - by dissolving fat in o
solvent and filtering
BADGER CO INC 03.07.78-US-921735
A35 (03.07.79) C09f-05/10 C11b-01/12 C11c-01/04

Suspended plastics fines are removed from tallow by
olving tne tallow in an organic solvent to give a soln.
undissolved polymer particles, and filtering the soln.
solvent is then removed e.g. by distillation, and may
reused.

The plastics fines are the remnants of bags used t
tain the crude fat, and cannot be removed by filtering
ted tallow as the heat-softened polymer clogs filters.
process is simple and overcomes the problem. The
is esp. used in soap making. 3.7.78 as 921735 (7pp9

See Also

D14 GB 1548511 D21 J5 4073136

D24: SOAP; SOAP DETERGENTS

DAII D24 72927U/48 =J7 9016-964
Soap compsn - contg sucrose esters
DAIICHI KOGYO SEIYA 22.11.71-JA-094012
*(26.06.79) *J48058-005 +C11d-09/26*

Compsn. having pH 7-10 contains 1 part soap base, 0.03-0.35 part fatty acid sucrose ester, and opt. additives. The compsn. has good solubility. Thus, beef tallow Na soap at pH 9.0 100, beef tallow fatty acid sucrose ester contg. 50% monoester 10, and perfume 1 part were kneaded at 80°C and moulded. The soap had superior solubility and touch to similar soap without sucrose ester. 22.11.71 as 094012 C11d-9/26 (26.6.79) DAIICHI KOGYO SEIYAKU CO. LTD. (4pp) (J4 8058005)

D25 : OTHER DETERGENTS

★ D25 52618B/29 ★CA 1057-618

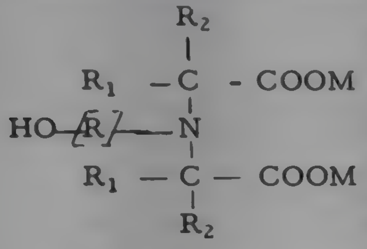
gent compsns. contg. imino:di:carboxylate builders - may be lated without phosphorus cpds.

LGATE PALMOLIVE CO 26.10.73-US-409790

7 E19 (E34) (03.07.79) C11d-01/86

rticulate heavy duty laundry detergent compsn. com es 5-30 pts. of organic sulphonate, sulphate, phosphon r phosphate anionic surfactant, 1.5-7.5 pts. organic onic surfactant, 5-30 pts. alkali metal silicate having tio $M_2O:SiO_2$ in the range 1:1.6 to 1:3, 4-20 pts. alkali l carbonate, 0.25-3 pts. antiredeposition gum, and pts. of a builder salt of formula (I).

I)



$$HO{-}[R]{-}N\begin{cases}R_1-\overset{R_2}{\underset{}{C}}-COOM\\ R_1-\underset{R_2}{C}-COOM\end{cases}$$

In (I) R is 2-4C alkylene, R_1 and R_2 are H or 1-3C alkyl, the sum of C atoms in R_1 and R_2 being $\leqslant 3$, M is alkali metal or (subst) ammonium. The sum of the parts is 100. If the amt. of nonionic surfactant is < 2.5 pts. there is $\geqslant 20$ pts. builder salt and/or there is also sent 2-10 pts. of a higher alkyl poly lower alkoxy nol sulphate.

The compsn. can be formulated to be phosphorus e, yet performs as well as compsns.contg. inorganic sphate builders. 25.10.74 as 212301 (24pp955)

A ★ D25 52918B/29 ★EP ---2-675

free N-acyl taurine prepn. - by reacting taurine salt and acid ride in alkanol in presence of alkali metal hydroxide, sepg. . chloride, and cooling to ppte.

AF CORP 03.01.78-US-866284

60 E16 (11.07.79) C07c-143/67

: E(CH, DT, FR, GB, IT).

pn. of N-acyl taurine free from alkali metal chloride nprises (a) reacting, in a 1-4C alkanol medium (initially tg. $\ngtr$ 15 wt.% H_2O) at 30°C-reflux temp., 1 mole of a 2 C carboxylic acid chloride with 1 mole of a taurine t of formula (I):

$$HNR^1 - CHR^2 - CHR^2 - SO_3M \quad (I)$$

(where R^1 is H or 1-6 C hydrocarbyl; each R_2 is ep. H, Me or Et; M is an alkali metal) in the presence 1 mole alkali metal hydroxide; (b) sepg. the pptd. ali metal chloride while maintaining the temp. high ough to solubilise the N-acyl taurine reaction prod; and cooling to ppte. the N-acyl taurine.

N-Acylated taurines are anionic surfactants (Igepon-T; M) useful in liquid detergents, synthetic soap bars, thpastes, mould lubricants and emulsion polymerisation actions.

The process is easily controlled, is economical and ovides a prod. contg. $\ngtr$ 1.5% of salt. (The presence of lt in the surfactant is detrimental (e.g. corrosive, hygroopic) for most of the above applications.).

12.78 as 101520.(16pp960).

) ISR: US2987526; US2974154; US2844611; 1 Journal eference.

NK D25 47356B/26 =EP ---2-746

aching compsn. for textiles - contains peroxy-carboxylic acid or cursors and bis:styryl-di:phenyl optical brightener

HENKEL KG AUF AKTIEN 19.12.77-DT-756583

*E19 F06 (11.07.79) *DT2756-583 D06l-03/12 +C07c-179 C11d-03/42*

/S: E(BE, CH, DT, FR, NL).

leach for textile treatment comprises (a) as per cpd. a -12C diperoxydicarboxylic acid (I) and (b) as optical ightener a salt of 4,4'-bis-(3-sulpho-4-chlorostyryl)- phenyl (II). (II) is 0.01-0.5 wt.pts. per wt.pt. available eroxy oxygen. (I) is pref. diperoxyazelaic acid.

Opt. a water-soluble salt of 4,4'-bis-(2-sulphostyryl)-diphenyl (III) is included as additional brightener at (II):(III) wt.ratio 20:1-1:20, esp. 9:1-1:1.

The bleach is used in detergent formulations. (II) and (III) are stable in presence of peroxy cpds.

15.12.78 as 101708 (16pp1251).

(G) ISR: US4013581; FR2357604; DT2110996; DT2327895.

PROC ★ D25 52978B/29 ★EP ---2-857

Detergent article comprising surfactant mixt. on insoluble substrate - with improved release of active wash components and excellent soil removal from fabric

PROCTER & GAMBLE CO 23.12.77-US-864136 (23.12.77-US-864050)

A97 E19 (11.07.79) C11d-01/83

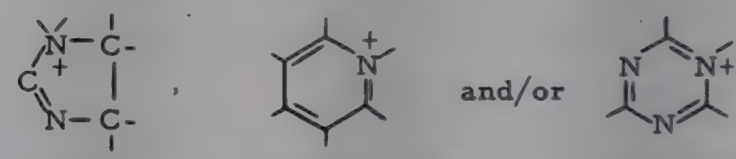
D/S: E(BE, CH, DT, FR, GB, IT, NL).

A laundry detergent article comprises a water insoluble, wet strength substrate carrying a detergent compsn. consisting of (a) 5-95, pref. 10-90 wt. % of a mixt. of (i) nonionic surfactant of HLB 5-17, (ii) cationic surfactant in a ratio of (i):(ii) of 5:3 to 300:1, pref. 5:3 to 50:1 and (b) 1-30% of a nonionic or cationic solubilisation aid of solubility in 100°F water of $\geqslant 20$ wt. % and which completely dissolves in 100°F water in $\ngtr 2$ mins.

The cationic surfactant is of formula:

$$R^1_m R^2_x Y_l Z$$

(where R^1 is a gp. contg. an alk(en)yl opt. substd. by $\leqslant 3$ phenyl gps. and opt. interrupted by $\leqslant 4$ gps. selected from $-C_6H_{10}-$, $-COO-$, $-OCO-$, $-CON(R^2)-$, $-N(R^2)CO-$, or $-O-$ and which contain 8-22C and may also contain $\leqslant 20$ ethoxy gps; m is 1-7 and $\ngtr 1$ R^1 can have $> 12C$ when m is 3 or more; R^2 is alkyl or hydroxyalkyl of 1-4C or benzyl with $\ngtr 1$ R^2 being benzyl; x is 0-7; remainder of any C, N, S or P atom positions being filled by H; Y is selected from $\gtrdot N^{\pm}$, $\gtrdot P^{\pm}$, $>S^{\pm}$, $\gtrdot N^+(C_2H_4O)_pH$, p is 1-20,



l is 1-3; Z is an anion. The surfactant is water dispersible in admixt. with the nonionic surfactant.

Improved release of the active wash components are released into the wash soln. with minimal bleeding of the active components through the substrate sheet. Excellent removal of particulate and greasy/oily soils from the fabric is achieved. The laundry article may also provide fabric static control, fabric softening and dye transfer inhibition.

13.12.78 as 200363 (45pp966)

(E) ISR: DT2426581; GB1447448; DT2529444; DS2106819.

ESSO ★ D25 53003B/29 ★EP ---2-907

Purifying alkaryl sulphonic acid - by washing with water then heating with olefin to remove residual sulphuric acid

EXXON RES & ENG CO 23.12.77-GB-053638

E14 (11.07.79) C07c-139/14 C07c-143/34

D/S: E(BE, DT, FR, GB).

Crude alkarylsulphonic acids (I) are purified by first treating with 1-30 wt.% (on alkylate from which (I) is derived) of water, adding $\geqslant 1$ wt.% (on alkylate) of an olefin (II) and, after removing aq. phase, heating at 100-150°C for $\geqslant 15$ min. (esp. at 120-140°C for about 30 min.).

Pref. (I) is an alkyl(20-30C)-aryl sulphonic acid. The olefin is pref. used at 2-10 wt.% and has mol.wt. 294-336.

(I) are used to make detergents and emulsifiers.

The process is esp. for purifying crude (I) contg. > 3 wt.% H_2SO_4 and made using oleum for sulphonation. Washing with water before olefin treatment reduces residual H_2SO_4 content and can obviate the need for washing with aq. HCl.

13.12.78 as 300810 (10pp1251).
(E) ISR: GB-804349; FR2341565.

AGEN ★ D25 53007B/29 ★EP ---2-917

Detergent compsn. with imido bis-sulphate and aluminosilicate builder - and anionic and/or nonionic surfactant, showing excellent washing power and low toxicity

AGENCY OF IND SCI TECH 18.12.77-JA-152127
E12 (11.07.79) C11d-03

Full Patentees: Agency of Ind. Sci. Tech.; Kureha Chem. Ind. KK; Sumito Corporation.
D/S: E(BE, DT, FR, GB, IT, NL).

A detergent compsn. comprises an anionic and/or non-ionic surfactant and a builder consisting of a mixt. of (a) an imido bis sulphate, $(MSO_3)_2NM'$, (where M is Na, K, Li or NH_4 and M' is H, Na, K, Li and NH_4), and (b) an alumino siliciate of formula $(M''_nO)_xAl_2O_3(SiO_2)_y$ (where M'' represents a cation exchangeable with a Ca ion; n is determined by the valency of M''; x is 0.5-2.0 and y is 0.5-8, pref. 1.2-4.0.

Total amt. of (a) and (b) is 50-950, pref. 200-500 pts. wt. per 100 pts.wt. of the surfactant. (a) is present in amt. of 20-90, pref. 20-70 wt.% of (a) + (b).

The detergent compsn. has excellent washing power and low toxicity and contains a P-free builder.

15.12.78. as 300836 (23pp966).
(E) ISR: DT2544605; DT2549337; DT2156080.

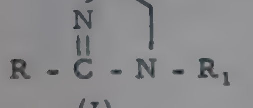
ALBR D25 49529B/27 =EP ---2-943

Purificn. of alkyl imidazoline surfactants - by heating with amine cpd. to de:acylate di:amide impurity

ALBRIGHT & WILSON LTD 22.12.77-GB-053575
*E13 (11.07.79) *GB2010-829 C07d-233/10*

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW).

Prodn. of an imidazoline (I) of low diamide content comprises heating a reaction mixt. contg. the imidazoline (I) and a diamide (II)


(I)

$$RCONHCH_2CH_2NR_1COR$$
(II)

with an amine R_2R_3NH at ⩾150°C.

(R is an aliphatic gp. having ⩾4C; R_1 is 1-4C opt. subst. alkyl or alkenyl; R_2 is opt. subst. 1-4C aliphatic gp.; and R_3 is H or as R_2).

Cpds. (I) are surfactants (e.g. used in shampoos) and, as normally prepd., contain minor amts. of (II) which ppte. in storage causing a cloudy appearance. (II) are converted to innocuous prods.; partly to the corresp. amino monoamide which is then cyclised to (I), raising the yield.

21.12.78. as 300886 (13pp955).
(E) ISR: DT 1795359; DT 2615886; US 2992230; US2155877; US 2267965; US 2528378; GB 1187131.

FMCC ★ D25 53024B/29 ★EP ---2-960

Uniform small zeolite A crystals prodn. - by seeding sodium aluminium silicate gel, useful in detergents and water softeners

FMC CORP 03.01.78-US-866302
E33 (11.07.79) B01d-09/02 C01b-33/28

D/S: E(BE, DT, FR, GB, NL).

Uniform zeolite A crystals (I) of <10 μm. size are made by first grinding zeolite A to give seed crystals of <0.5 μm. (all cluster crystals broken up). A predetermined amt. of these seeds are then uniformly distributed in an Na-Al silicate gel comprising (anhydrous basis) 26-62 (pref. 36-48) mole % Na_2O; 10-37 (pref. 16-24) mole % Al_2O_3 and 24-50 (pref. 35-42) mole % SiO_2. The gel is free of particles which could nucleate crystallization.

The gel is then kept at >70°C until it has crystallized. The size of (I) is determined by the amt. of seed added.

(I) are useful as water softeners and replacements for phosphates in detergents.

Precise control of particle size and reduced amts. of zeolite C are co-ppted.

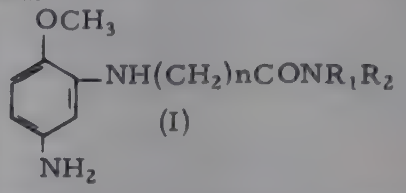
27.12.78 as 300905 (22pp1251).
(E) ISR: DS2447206; DS1930705; US2882243; US3071434; DS2517218; DT2161113; US4007253; US3310373; US3808326; US3321272.

OREA D25 04159A/03 =GB 15

(N)-Carbamoylalkyl (meta)-phenylene diamine derivs. - us
colour couplers in oxidn. hair dyeing compsns.

L'OREAL SA 20.08.76-FR-025385
*E24 (18.07.79) *BE-856-742 A61k-07/13 C07c-103/76*

Meta-phenylenediamine derivs. of formula (I) are des
ed.


(I)

In (I) R_1 and R_2 are each
1-2C alkyl and n=1 or 2,
ded R_1 and R_2 cannot simu
eously be H when n=2.

(I) are useful in dyeing
-psns. for keratinic fibre
esp. hair. They act as oxidn. base and are used in co
bination with paraphenylenediamines. The compsns.
part a blue coloration of good quality, i.e. stable to li
to inclement weather and to shampooing. 18.8.77 as
034788(11pp924).

KAOS ★ D25 53172B/29 ★J5 407

Detergent compsns. for marine use - contains phospholipid(s)
soybean lecithin, fatty acids or their salts, and a poly: phosphat

KAO SOAP KK 16.11.77-JA-138282
E34 (E19) (06.06.79) C11d-07/60 C11d-09/34

The detergent compsns. are mfd. by blending 0.1-5 wt
of a phospholipid (e.g. glycerophospholipid, e.g. soyb
lecithin, egg yolk lecithin, acetone-insolubles of soybe
lecithin, etc.); 0.1-5 wt. pts. of a 6-22C fatty acid or
alkali salt thereof (e.g. Na or K salt); and 10-70 wt. p
of polyphosphate of formula $Mn+_2PnO_3n+_1$ or $(MPO_3)n$ (
n is 2-6 and M is an alkali metal).

A typical product, when charged into a polyethylene
and stored at a relative humidity of 60% for 30 minutes
shows no change in colour and odour. Whereas, a pro
treated with 5% saline soln. contg. 25 g of a detergent
mpsn. comprising 12 pts. of soybean lecithin and 20 pt
of potassium polyphosphate to provide crude fat conten
10.2%, when stored under the same conditions, shows
dised oil stain and putrefied odour. The compsns. sho
high washing power at low temp. 16.11.77 as 138282
(5pp59)

HORI/ ★ D25 53358B/29 ★J5 4071

Builder for detergents - mfd. by baking specified natural alumin
silicate to remove impurities, and grinding to specified particle s

HORI K 18.11.77-JA-138476
E33 (07.06.79) C11d-03/12

A builder for detergents is prepared by baking natural
minium silicate obtained from clay, i.e. saponite, a m
ber of the family of montmorillonite, having a crystal
cture of an asteroidal form, at 200-400°C to remove i
rities, e.g. sulphur, sulphur cpds. and organic substa
without causing the destruction of the crystal structure
then the baked clay is ground into fine granules of a gra
size of <10 μ.

The builder, using clay as raw material which is ea
available in large quantities, can be mfd. simply by ba
and grinding without the use of special facilities and tec
ology, and also exhibits a complete builder's function b
ause of its complete solubility in water, due to the fine
of <10 μ and without causing any pollution in water du
the dissolution of impurities, e.g. phosphorus, etc. in
blic water. 18.11.77 as 138476 (3pp117)

LIOY D25 74700W/45 =J7 9016-

Coating granular detergent to e.g. improve flowability - using alk
metal polyphosphate, sulphate (bi carbonate and/or citrate, and
alk. earth satd. fatty acid salt

LION FAT & OIL KK 05.07.73-JA-075280
*E34 (E12) (22.06.79) *J50025-603 +C11d-11*

Spray-dried, porous granular detergents (water content
6-17%) are treated with 5-30% alkali metal polyphospha
sulphate, carbonate, bicarbonate, and/or citrate and/o
alkaline earth metal 10-22C satd. fatty acid salt at 70:9
°C. For example, a Na alkanesulphonate-based detergen

n. (Na_2CO_3 pickup by detergent 85%) to give deter-
vith improved flowability and caking resistance.
coating agents used were, e.g. Na tripolyphosphate
lphate and calcium stearate. 5.7.73 as 075280
11/00 (22.6.79) LION FAT & OIL KK (3pp)
25603)

D25 56900S/35 =J7 9016-959
ne tripolyphosphate granulate
APSACK AG 24.02.70-DT-008495
*(26.06.79) *BE-763-266 C01b-25/40*

lar alkaline tripolyphosphate having high abrasion-
tance and elevated apparaent density is prepared by
itting an alkaline tripolyphosphate, 10-40% of whose
cles are < 0.03 mm the rest being 0.03-0.4mm to
lation by projection of an alkaline orthophosphate
on, drying the granulate, eliminating the particles
are too big or too small, and reheating the desired
on to 300-600° C.

obtain a product having 50-100% content of phase I,
eheating is pref. performed at 520-550° C to obtain
duct having 0-50% phase I, the reheating is pref. at
500° C. The product may have density 750g/l. 24.2.71
9222 (clg. 24.2.70-DT-008495) C01b-25/40 (26.6.79)
PSACK AG (6pp) (J4 6001662)

- ★ D25 B/29 ★RU --64-873
ing powder for porcelain, plastic and metals - comprises
nic ash, silica and selected sodium salts
ONSTRUCTORUL COOP 08.01.72-RU-069339
(10.07.78) C11d-01 C11d-03

- ★ D25 B/29 ★RU --66-69
trial cleaning compsn. - comprise polyvinyl alcohol, petroleum
ucts polyethoxylated fatty alcohols, extraction benzene and
as
HIMICA COOPERATIVA 26.07.75-RU-082939
97 (10.07.78) A61k-09/06 A61k-31/04

= ★ D25 54215B/29 ★SU -626-116
oving corrosion, etc. from IC engine parts - using aq.
ochloric acid, thiourea, ammonium citrate, sodium thiocyanate
potassium sulphate
IBE MACHINE TRACTO 27.12.76-SU-434012
16 M12 (E34) (25.09.78) C11d-07/08

mpsn. for cleaning metallic-surfaces, contg. aq. soln.
HCl with thiourea, ammonium citrate and sodium thio-
nate is improved by addn. of K_2SO_4.

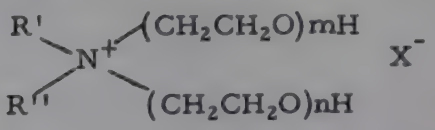
The compsn becomes applicable to metals other than
el or iron, esp. to aluminium. The compsn. contains
wt.%) HCl 3-10, thiourea 0.3-0.5, ammonium citrate
-0.5, sodium thiocyante 0.05-0.5, and K_2SO_4 1.3-1.5
balance is water.

ovlev B.P., Glavatskii G.D., Gorlo V.V., Bul. 36/
9.78 27.12.76 as 434012 (3pp70)

RHON D25 05648Y/04 =US 4159-978
Hydrophilic polyacetal as antisoil agent for textiles - by acetalising prod. obtd. from diol phthalate deriv., polyoxyalkylene glycol and dihydroxyethyl amine
RHONE-POULENC INDUSTRIES 10.07.75-FR-022626
*A25 E19 F06 (A87) (03.07.79) *BE-844-006 C08g-12/04*

Hydrophilic polyacetal polymer is prepd. by reacting a reactant compsn. (I) with a compsn. (II) comprising R_1-CHO where R_1 is H, alkyl, alkenyl or aryl of 1-10C, the no. of mols. of aldehyde being $\geqslant \frac{1}{2}$ total of OH gps. in (I).

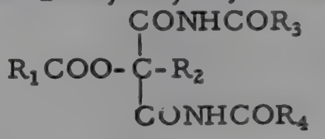
(I) comprises (A) 20-60% of reaction prod. of a phthalic acid (or anhydride or diester) and $\geqslant 1$ satd. diol of mol. wt. $\leqslant 300$, prod. having an OH no. of 150-500 and acid no. < 2; (B) 40-80% of (1) a mixt. comprising (a) 50-100 wt.% $R-(OC_xH_{2x})_n-OH$ where R is H, alkyl, cycloalkyl, aryl, alkaryl or aralkyl of 1-20C, x = 2-4, n is such that mol. wt. is 300-10,000; (b) 0-50 wt.% of $R'R''N^+(CH_2CH_2OH)_2\ X^-$ where R' and R'' are $\leqslant$ 5C alkyl or benzyl and X is halogen or methylsulphate; or (2) 100 wt.% of a cpd. (III) where $m+n < 15$.


(III)

Polymers have renewable soil release, antisoil redeposition and antistatic properties and can be applied to natural/synthetic textile esp. polyester. 9.3.78 as 884827 Div. ex. 4107056 (+9.7.76-US-703827) (9pp963)

UGIN D25 15882A/09 =US 4159-991
Alpha:acyloxy-(N,N')-di:acyl:malonamide cpds. - used in bleaching and scouring compsns. prepd. from an alpha:acyloxy-malononitrile and a carboxylic acid
UGINE KUHLMANN 01.09.76-FR-026324
*E19 F06 (03.07.79) *BE-858-049 C09f-05 C11d-01/28 +C07c-143/90*

New α-acyloxy-N, N'-diacylmalonamides are of formula (I).


$$R_1COO-\underset{CONHCOR_4}{\overset{CONHCOR_3}{C}}-R_2 \quad (I)$$

In (I), R_{1-4} are each H, 1-11C alkyl, or 6-12C hydrocarbyl contg. $\geqslant 1$ aromatic ring.

(I) are useful as intermediates in organic synthesis and as low temp. activators in bleaching or scouring compsns. 22.8.77 as 826478 (3pp936)

See Also

D13 US 4159988 D23 CH 611624

CPI INDEXES

G PATENTEE INDEX (II)

ection and overall, lists all current patents in
e order and, within a given patentee, in earliest
order. The first line gives patentee code,
ty date, patentee name, CPI classes and finally
patent number. The second line gives the first
tle, followed by the accession number.

```
E/ 24.01.75  EIGENMANN L    A93  *DT 2602-948
 Bonding fluid for road marking strips - 60224X/32
E/ 27.01.75  EIGENMANN L    A93 L02(A21)  *DT 2602-947
 Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

SS INDEX (IV)

y. Headings are all the CPI
hin the section to which an
ulletin relates, arranged in
rder. Posted under each class
a list, in country then patent
ler, of all basic or equivalent
referenced or cross-
under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

NUMBER INDEX (V)

section and overall, lists all
accession number. Each
onsists of the accession
bold, followed by the CPI
ers. There then follows a
the family members,
ng with the basic and
vith the current week's
each family member the
of issue is quoted, and a
indicates that a multiple
s been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                              49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                         49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                              48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distingui accepted West German specifications (DAS) from unexamined applications (OLS) which are given the no DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

- 08.01.76 ABATORUL BUCURESTI D12 *RU --64-009
scraping machine for pig skins - B/29
19.10.77 ABBOTT LABORATORIES A60 C02 D22 E13 =BR 7806-883
ctericidal and fungicidal 2-methyl-1-naphthyl maleimide - 19938B/10
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2011-894
'-Di:acyl or alkyl fortimicin B derivs. - 51130B/28
04.07.75 ACTIVOX INC D15 #CA 1057-867
ntinuous activated sludge sewage treatment - 58522W/35
N 22.11.77 AGENCY OF IND SCI TECH B04 D16 *J5 4073-186
eserving beta-amylase obtd. from Bacillus microorganisms - 53724B/29
N 22.11.77 AGENCY OF IND SCI TECH B04 D16 *J5 4073-187
rificn. of beta-amylase from Bacillus microorganism - 53725B/29
N 18.12.77 AGENCY OF IND SCI TECH D25 E12 *EP ---2-917
etergent compsn. with imido bis-sulphate and aluminosilicate builder -
007B/29
- 14.02.74 AGRI PROD & VEG PRO C03 D13 =CA 1057-572
odstuff, esp. milk substitute, produced from legume seeds -
465W/35
O- 30.04.76 AGROKEMIA SZOVETKEZ C03 D13 *HU T016-660
epn. of nutrients, esp. animal fodder concentrates - B/29
C 11.10.77 AMER HOSPITAL SUPPL CORP A89 B04 D16 J04 (A96) =FR
-199
etermn. of isoenzyme(s) having different electric charges - 27886B/15
/ 15.11.77 AIHARA M D15 *J5 4070-638
erilisation of water, e.g. in swimming pools - 53273B/29
V- 27.12.77 AIRWICK AG A97 D22 (A18 A25) *EP ---3-003
niform release vapour dispensing system - 53043B/29
14.06.73 AJINOMOTO KK D16 E13 =J7 9017-033
uanosine fermentation production - 04282W/03
27.00.74 AJINOMOTO KK B02 D16 =J7 9017-034
uanosine monophosphate prodn. - 06257X/04
24.11.77 AJINOMOTO KK B05 D16 E16 *J5 4073-189
-formyl-2-acetylamino-butyric acid prodn. - 53726B/29
R 09.03.73 ALBRIGHT & WILSON LTD C01 D22 E12 F09 =CH -611-829
reservation of wood against fungal attack - 55267V/31
R 22.12.77 ALBRIGHT & WILSON LTD D25 E13 =EP ---2-943
urificn. of alkyl imidazoline surfactants - 49529B/27
M- 26.06.73 INST ALIMENTARE D17 *RU --65-869
ugar beet sugar losses reduction - B/29
O- 01.11.77 ALTO CORP A88 D11 *US 4159-662
ined muffin splitting device - 54329B/29
M 08.12.71 ALUMINUM CO AMERICA D15 =RU --63-283
Vater purification - 36735U/26
MA 29.08.77 AMF INC D11 *US 4159-740
lorizontal dough mixer with cooled walls - 54343B/29
MA 17.03.78 AMF INC D18 *BE -874-874
econstituted tobacco leaf contg. fibres, partic. hardwood - 52610B/29
DE/ 29.07.75 ANDERL L D15 J08 =CH -611-954
ecovering heat from process waste waters - 92476X/50
M- 30.12.77 ANIMALKA MINERAL C03 D13 *DT 2854-817
ncreasing egg-laying rate of laying hens - 52831B/29
S 08.08.75 ANIC SPA D23 E16 =HU T016-694
imethyl octenyl nitrile and dimethyl hydroxy octyl nitrile - 09409Y/06
S 03.01.78 ANIC SPA B05 D23 E17 =NL 7811-919
Methyl-heptenone prepn. for use as terpene intermediate - 45685B/25
VR 12.10.77 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24)
R 2405-924
lpha-amino acid prodn. from amino nitrile - 38450A/22
A/ 25.01.78 ARIAS J V D15 *BE -873-637
revention of corrosion and scaling inside water pipes - 52561B/29
AH 12.08.71 ASAHI KASEI KOGYO A97 D18 =J4 8026-996
obacco substitute prodn. - 58822V/33
AH 12.08.71 ASAHI KASEI KOGYO A97 D18 =J7 9016-599
obacco substitute prodn. - 58822V/33
AH 16.11.77 ASAHI CHEMICAL IND KK D13 *J5 4070-469
gg powder with reduced cholesterol and fat content - 53262B/29
AI- 22.11.77 ASAI GERMANIUM KENK D21 E12 =J5 4073-129
Cosmetic skin treatment formulation contg. an organo germanium cpd. -
0915B/22
BI= 19.07.76 AS USSR BIOCHEM PHY D16 *SU -626-118
Microbial cell breakdown for use in research, food, drugs etc. mfr. -
54217B/29
MU/ 09.11.77 ASMUS D D13 *US 4159-955
French fries dispensing bin - 54388B/29
TR 15.02.68 ASTRA AB B02 C02 D16 =DS 1966-427
Preparation of cell-free penicillin-acylase - 39978F/00
UM- 22.11.77 AZUMA-BISHI SHUZO D16 *J5 4073-198
Liquor prodn. - 53732B/29

BS- 09.05.75 BABSON BROS CO D15 =GB 1548-421
Processing cattle excrement to recover fibres - 61461X/32
BS- 09.05.75 BABSON BROS CO D15 =GB 1548-422
Processing cattle excrement to recover fibres - 61461X/32
BS- 09.05.75 BABSON BROS CO D15 =GB 1548-423
Processing cattle excrement to recover fibres - 61461X/32
CB 09.01.78 BACILLOFAB DR BODE CO A60 D22 E16 G02 (E13 G03) *DT
0-739
52775B/29

*BADG 03.07.78 BADGER CO INC A35 D23 *US 4159-992
Removal of polymer fines from tallow - 54405B/29
BADI 05.11.75 BASF AG D18 E17 =DS 2549-527
Two stage leather tanning process - 34651Y/20
*BADI 00.00.76 BASF AG A82 D18 F08 (A23 A25) *DT 2800-150
Dressing leather or polyurethane leather with co polyamide - 52715B/29
BADI 05.12.77 BASF WYANDOTTE CORP A35 D25 (A11 A23) =DK 7805-417
Reclaiming stained cellulose contg. fabrics - 78105A/43
BADI 07.12.77 BASF AG D25 E19 =GB 2011-943
Prepn. of strongly alkaline aq. solns. of nonionic surfactants - 44034B/24
BADI 29.12.77 BASF AG C02 D22 E13 F09 =DT 2758-784
Substd. triazolyl glycol ether derivs. - 52917B/29
*BADI 29.12.77 BASF AG C02 D22 E13 F09 *EP ---2-671
Substd. triazolyl glycol ether derivs. - 52917B/29
*BAKP 12.10.76 BAKER PERKINS LTD D11 *GB 1548-958
Batch preparing dough for biscuit making - 53118B/29
BAKP 26.10.77 BAKER PERKINS LTD D13 #US 4159-612
Lollipop producing machine - 35232A/20
*BANY 25.11.77 BANYU PHARM CO LTD B04 D16 *J5 4073-190
Immunostimulant forphenicine prepn. - 53727B/29
BARH 19.06.68 BARNES HIND PHARM INC A89 B05 D22 (A14) #J7 9016-567
Resterilizing contact lens solns - 16041T/10
BARH 04.06.71 BARNES HIND PHARM INC A89 B05 D22 (A14) #J4 8004-627
Resterilizing contact lens solns - 16041T/10
BECI 13.02.76 BECKMAN INSTRUMENTS INC B04 D16 J04 =US 4159-923
Analysis of alpha and beta amylase in body fluids - 59735Y/34
BEEC 13.10.75 BEECHAM GROUP LTD B02 D16 =IL --50-527
Prodn. of clavulanic acid and its salts - 25256Y/15
BEGH- 30.12.77 BEGHIN-SAY D22 F07 =GB 2011-778
Breeches-type disposable napkin for babies - 26005B/14
BEHW 24.12.74 BEHRINGWERKE AG B04 D16 =DS 2461-439
Adsorbed pertussis antigen - 52453X/28
BEHW 27.10.77 BEHRINGWERKE AG B04 D16 =J5 4070-422
Stabilising meningococcal polysaccharide for use in vaccine - 33342B/18
BENC 04.01.78 BENCKISER-KNAPSACK D15 =DT 2800-278
Municipal and industrial sludge thickening - 53048B/29
*BENC 04.01.78 BENCKISER-KNAPSACK D15 *EP ---3-013
Municipal and industrial sludge thickening - 53048B/29
*BERE- 29.03.74 FAB BERE SI SPIRT D16 *RU --63-642
Acetic fermentation process - B/29
BETT- 17.10.77 BETTCHER IND D12 =FR 2405-790
Hand-held trimming knife - 31907B/17
BEWA- 17.05.77 INST BEWARING VERWE D17 E13 =GB 1548-500
Xylose prodn. from annual plant residues e.g. straw - 84084A/47
*BIER- 30.12.77 BIERHALTER GMBH A97 D12 *DT 2759-005
Natural sausage skin packaging - 52675B/29
BIOR- 02.08.72 BIORESEARCH DOTT CA B02 D16 =DS 2336-401
S-adenosil-l-methionine tri-para-toluene sulphonate - 03583V/02
*BIOS= 09.07.66 BIOSYNTH ALBUMIN D16 H04 *SU -202-844
Purificn. of yeasts grown in petroleum fractions - 53870B/29
BLEN 22.12.77 BLENDAX WERKE SCHNEIDER D21 =EP ---2-690
Tooth paste compsns. contg. zeolite - 50979B/28
BLOH- 03.04.75 BLOHORN SA D13 =CH -611-645
Vegetable fat closely resembling that of natural milk - 79717X/43
BOEF 24.12.75 BOEHRINGER MANNHEIM GMBH B04 D16 =DS 2558-536
Kinetic determination of enzyme substrates using coupled reactions - 45260Y/26
BOEF 29.10.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 =CH -611-712
Total or bound cholesterol determination - 35060A/20
BOEF 23.12.77 SUDDEUT ZUCKER AG A97 D15 (D17) =EP ---2-698
Biological sugar refinery effluent treatment - 12099B/07
BOGO/ 12.03.74 BOGOCH S A96 B04 D16 =CA 1057-684
Astrocytin and malignin from tumour tissue - 67302X/36
BOSC 14.12.76 BOSCH-SIEMENS HAUSG D11 =DS 2656-565
Baking oven with cooling air conduits - 45955A/26
*BOSC 14.01.78 BOSCH-SIEMENS HAUSG D14 *GB 2011-992
Household appliance with grooved spindle for mounting tool carrier - 53158B/29
BRBL 04.07.77 BRAUNSCHWEIG MASCH D17 #GB 1548-489
Sugar beet extraction tower with central rotor - 32227A/18
*BROO/ 17.05.76 BROOKS L L D15 J01 *US 4159-947
Sludge dewatering apparatus - 54381B/29
*BRPE 09.06.75 BRITISH PETROLEUM LTD D16 E35 J04 (D15) *GB 1548-903
Air gap electrode for ammonium ion concn. determn. in aq. soln. - 53117B/29
BUHL 31.07.75 BUHLER GEBR AG D11 =CH -612-053
Fluidised bed drying tunnel for pasta prods. - 33193Y/19

CALP- 09.01.78 CALPIS SHOKUHIN D13 #DT 2800-779
Milk-contg. acidic syrup prepn. - 24049A/13
CANC- 22.08.77 INST CANCER RES B04 D16 =J5 4070-384

*CARB- 26.09.73 CENT CARBUNELUI D15 J01 *RU --64-027
Clarification of waste water from coal processing plant - B/29

CARO 30.12.77 CARBORUNDUM CO D15 E36 J01 =EP ---2-674
Hard granular activated carbon for water treatment - 35108B/18

CART- 02.04.76 CARTIERA DEL SENTIN D16 (D23) =CH -611-806
Filter board for wine or oil filter press - 72831Y/41

CASS- 10.12.77 CASSELLA AG A97 D15 =EP ---2-704
Mud removal from waters - 45853B/25

CASS- 23.12.77 CASSELLA AG A87 D18 E19 F06 =EP ---2-773
Compsn. for treating cellulosic textiles and leather - 49263B/27

CECA- 04.03.75 CECA SA D16 =CH -611-930
Agar-galactomannan bacteriological support mixt. - 72501X/39

CELA 10.01.68 CELANESE CORP A97 D18 (A11) =DS 1900-491
Tobacco replacement material - 30314Q/00

CELL- 13.12.77 CELLCOR CORP CANADA D17 (D13) #BR 7708-265
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16

CENS 10.09.75 CENTRAL SOYA KK C03 D13 =GB 1548-703
Animal feedstuff mixer and extruder - 05736Y/04

*CEPA 13.12.74 CELLULOSE PAPER IND RES D15 *SU -626-045
Waste water biological purificn. equipment - 54147B/29

*CEPA 23.09.75 CELLULOSE PAPER IND RES D15 F09 *SU -626-046
Water purification control system - 54148B/29

CHET 28.11.75 CHEMETRON CORP D12 =CH -611-490
Mechanical sepn. of meat and bone by screening - 23641Y/14

CHFS 17.04.75 CHEM FAB STOCKHAU A97 D18 E11 =GB 1548-947
Treating leather and pelts with phosphate esters - 83392X/45

*CHIM- 26.07.75 CHIMICA COOPERATIVA A97 D25 *RU --66-693
Industrial cleaning compsn. - B/29

CHUS 18.08.77 CHUGAI SEIYAKU KK B02 C02 D13 =FR 2405-657
Animal e.g. cattle, sheep or pigs growth promotion - 16289B/09

CHUS 18.08.77 CHUGAI SEIYAKU KK B02 C02 D13 =FR 2405-657
Animal e.g. cattle, sheep or pigs growth promotion - 16289B/09

CIBA 13.05.69 CIBA GEIGY AG A13 B02 D16 (A12 A91) =J7 9016-922
Isolation of cephalosporin c - 84470R/45

CIBA 11.06.74 CIBA GEIGY LTD A91 D15 E11 =US 4159-946
Prevention of hard water deposits - 24928X/14

*CIBA 29.12.77 CIBA GEIGY AG B07 C03 D13 J04 *DT 2856-223
Prodn. of granulates - 52850B/29

CIBA 29.12.77 CIBA GEIGY AG B07 C03 D13 J04 =GB 2011-800
Prodn. of granulates - 52850B/29

*CLEA- 18.11.77 CLEAN LIFE KOGYO KK C03 D22 E34 (D15) *J5 4073-119
Fungicide and descaling agent - 53706B/29

CNSF 29.04.75 CONSOLIDATED FOODS CORP A97 D15 E32 =IL --49-386
Biologically safe drinking water by treatment with silver ions - 88073X/47

*COGE/ 17.10.77 COGEZ P D13 *FR 2405-659
Condiment cream compsn. based on garlic, onion or shallot - 53056B/29

COKE 30.12.77 COCA-COLA CO D23 E15 =DT 2856-721
Substd.-cyclohex-3-en-1-one cpds. useful as perfume materials - 09884B/05

COKE 30.12.77 COCA-COLA CO D23 E15 =NL 7812-345
Substd.-cyclohex-3-en-1-one cpds. useful as perfume materials - 09884B/05

*COLG 20.08.73 COLGATE PALMOLIVE CO D21 *US 4160-022
Tooth-paste contg. sodium bi:carbonate as main abrasive - 54423B/29

*COLG 26.10.73 COLGATE PALMOLIVE CO A97 D25 E19 (E34) *CA 1057-618
Detergent compsns. contg. imino:di:carboxylate builders - 52618B/29

COLG 26.11.73 COLGATE PALMOLIVE CO D25 E19 =CA 1057-617
Inhibiting gel- and film-formation in liq detergents - 37983W/23

COLG 24.07.74 COLGATE PALMOLIVE CO D22 =CA 1057-464
Absorbent pad for sanitary napkin - 55393W/33

COLG 31.07.75 COLGATE PALMOLIVE CO A96 D22 F07 =CA 1057-458
Disposable nappy with compressible hydrophobic fibrous layer - 84645X/45

COLG 05.01.76 COLGATE PALMOLIVE CO A96 D22 =CA 1057-459
Disposable absorbent baby's nappy - 32828Y/19

COLG 19.08.76 COLGATE PALMOLIVE CO D22 =CA 1057-461
Tape fastener for disposable diaper - 68421Y/38

COLG 14.10.77 COLGATE PALMOLIVE CO A97 D25 (A25) =FR 2405-990
Abrasive liquid detergent compsn. - 88305A/49

COMM 13.05.74 COMMERCIAL SOLVENTS C02 D22 E13 =J7 9017-003
Inhibiting viruses and microorganisms with bicyclic) oxazolidines - 81838W/50

*CONS- 08.01.72 CONSTRUCTORUL COOP D25 *RU --64-873
Cleaning powder for porcelain, plastic and metals - B/29

*COOP- 18.01.78 COOP PHARM FRANCAI D13 *BE -873-503
ingestible compsn. contg. vegetable fibre and metallic proteinate - 52560B/29

COOR- 22.12.77 COORS FOOD PRODS CO D13 (D16) =WP 7900-421
Edible yeast product used as cocoa substitute - 47147B/26

*CORP 12.01.78 CPC INTERNATIONAL INC D17 E13 (D16) *BE -873-401
Preparing high purity maltose crystals from starch hydrolysate - 52537B/29

*CORR 01.05.78 CORNELL RES FOUNDATION B04 C03 D16 *US 4160-024
Immunising chickens against Marek's disease - 54424B/29

*CSAK/ 20.01.78 CSAKI M D14 *HU T016-670
Classifying fruit or vegetables - B/29

DAAN- 29.11.74 DANSK ANDELS AEGEXP D13 =CA 1057-573
Edible prods with coagulated egg white sheath enclosing
63730X/34

*DAID- 24.11.77 DAIDO KAGAKU SOCHI A41 D15 E17 *J5 4073-4
Treating waste liquor from methyl methacrylate prodn. - 53751

DAII 22.11.71 DAIICHI KOGYO SEIYA D24 =J7 9016-964
Soap compsn - 72927U/48

DAIL 26.08.71 DAICEL KK D15 J01 =DS 2241-450
Cleaning of tube systems - 14773U/11

DAUC 14.10.74 DAI-ICHI SEIYAKU CO D13 (D16) =J7 9016-575
Colour and taste modifier for rice - 41056X/22

DEGM 25.04.75 DEGREMONT SA D15 E33 =GB 1548-620
Water purification by coagulation or flocculation - 85316X/46

DEXC 06.01.75 DEXTER CORP A94 D22 F04 =CA 1057-600
Nonwoven web suitable for use as disposable wet wipe - 33878

DEXC 11.10.77 DEXTER CORP A96 D22 F07 =FR 2405-698
Antislip sheet material for covering surgical sheets - 31808B/17

DIFF- 28.10.69 SOC ETUD DIFF BREVE D15 J03 =GB 1331-308
Floculating impure water by electrode - 30181S/17

*DIMM/ 04.01.78 DIMMELER W C03 D13 *DT 2800-235
Preventing tree damage by deer - 52723B/29

*DONE= 06.04.77 DONETS FERR METAL D15 J01 *SU -626-328
Deaerating and cooling unit for steam boiler feed water - 54251

DORO 17.10.77 DORR OLIVER INC D13 =FR 2405-655
Cream cheese mfr. - 34622B/18

DUNC 18.10.73 DUNCAN FLOCKHARD CO LTD B04 D16 =CH -61
Vaccines from apyretogenic virus fragments - 29077W/18

DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =J5 4073-185
Immobilising enzymes on amorphous silica carrier - 35242B/19

*EBAI 21.11.77 EBARA INFILCO KK D15 *J5 4071-857
Ammonia contg. waste water treatment - 53520B/29

*EBAI 21.11.77 EBARA INFILCO KK D15 *J5 4071-858
Biological denitrification of ammonia-contg. waste water - 53521

*EBAI 22.11.77 EBARA INFILCO KK D15 J09 *J5 4072-768
Treating waste sludge, industrial material, dust, etc. - 53659B/29

*EBAI 22.11.77 EBARA INFILCO KK A91 D15 *J5 4073-464
Coagulation-sedimentation treatment of waste water - 53749B/2

*EGRE- 16.12.75 EGRETIER & CO SA D16 *FR 2405-888
Tank contg. helical segments - 53072B/29

EGYE 30.12.77 EGYT GYOGYSZERVEGYESZETI A11 B04 D13 E12
A97 B03) #DT 2759-032
Metal oligo- and poly-galacturonate complexes - 75406Y/42

ELEX 17.10.77 ELECTROLUX AB D22 =FR 2405-715
Autoclave sterilisation by evaporating formalin - 31887B/17

ELIL 26.04.72 ELI LILLY & CO B02 D16 =RU --64-183
Fermentative deacetoxycephalosporin c prodn - 69735U/46

*ELSA/ 27.09.77 EL-SAYED R M D15 E14 *SW 7710-790
Biological degradation of phenol in aq. effluent - 54303B/29

*ERIC/ 13.02.78 ERICKSON L G A91 D15 *US 4159-944
Processing of waste waters - 54379B/29

ESMI- 23.11.76 ESMILENVIROTECH LTD D15 #US 4159-684
Incinerating dewatered sewage sludge - 15095Y/09

ESPE 16.03.77 ESPE FAB PHARM PRAPARATE A14 D21 (A60 A96) =
611-633
UV curing acrylic compsn. e.g. for dentistry - 71709A/40

ESPE 03.01.78 ESPE FAB PHARM PRAPARATE A96 D21 (A14) =EP
831
Opaque dental filling materials - 51165B/28

*ESSO 23.12.77 EXXON RES & ENG CO D25 E14 *EP ---2-907
Purifying alkaryl sulphonic acid - 53003B/29

ESSO 03.01.78 EXXON RES & ENG CO D15 E36 J01 =DT 2900-132
Non-stoichiometric carbon-sulphur cpds. - 51262B/28

ESSO 03.01.78 EXXON RES & ENG CO D15 E36 J01 =NL 7900-041
Non-stoichiometric carbon-sulphur cpds. - 51262B/28

ETHI 03.11.72 ETHICON INC A96 D22 F02 (A23) =SU -625-579
Multifilament thread for use in ligatures - 36521V/20

EXPE= 19.10.76 EXPER VETERINARY B04 C03 D16 #GB 1548-436
Vaccine for equine trichophytosis - 50140A/28

FARB 15.03.73 BAYER AG A96 B04 D16 (B02) =CH -611-915
Polymer-bound, water-soluble penicillin acylase - 68073V/39

FARB 21.10.77 BAYER AG C01 D22 =BR 7806-919
O-pyrimidinyl-phosphorus acid ester and amide derivs. - 33536B/1

FARB 01.12.77 BAYER AG B02 C02 D13 =DK 7805-462
Antibacterial agents and animal feed additives - 44172B/24

FARB 01.12.77 BAYER AG B02 C02 D13 =EP ---2-665
Antibacterial agents and animal feed additives - 44172B/24

FARB 24.12.77 BAYER AG C03 D13 =DT 2758-008
Plant protectant cpd. prepd. by Actinoplanes culture - 52922B/29

FARB 24.12.77 BAYER AG B03 C02 D13 =DT 2758-025
Tri:hydroxy-piperidine derivs. - 18396B/10

3 24.12.77 BAYER AG C03 D13 *EP ---2-695
ant protectant cpd. prepd. by Actinoplanes culture - 52922B/29
3 31.12.77 BAYER AG D21 E14 *DT 2759-239
5-Di:methyl-anilino-ethyl carbamate derivs. - 52697B/29
H 09.10.74 HOECHST AG D25 E11 =CH -611-929
hosphate ester- and alcohol-contg. cleaning compsns. - 30361X/17
H 23.10.76 HOECHST AG D21 E33 =GB 1548-465
abilisation of di-calcium phosphate di-hydrate - 30240A/17
H 29.10.77 HOECHST AG D15 =J5 4071-854
eatment of waste water contg. toxic materials etc. - 37247B/20
H 29.10.77 HOECHST AG B02 D16 =J5 4073-192
olation of cephalosporin C - 37249B/20
H 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =J5 4072-290
eparing vinyl ester-crotonic acid copolymer - 37255B/20
H 16.12.77 HOECHST AG D15 =EP ---2-858
verloaded clarifying plant relief - 35443B/19
H 11.01.78 HOECHST AG D15 *DT 2801-034
locculating agent for water treatment - 52792B/29
R/ 29.07.77 FARR D R D13 =US 4160-042
emoving caffeine and/or chlorogenic acid from aq. vegetable extracts - 6149A/48
A= 09.11.76 F E DALTEKHRYBPROM D12 *SU -625-672
ish orienting loader for a jar-packing machine - 53984B/29
M= 10.03.77 FERMENT PRODUCT RES D16 *SU -626-119
urificn. of water-alcohol mixts. in vodka mfr. - 54218B/29
I- 23.04.76 MACH FAB FINIS BV D14 =HU T016-665
egetable peeling machine with air and water sprays - 59474Y/34
M 00.00.74 FIRMENICH SA D23 E13 (D25) *CH -611-624
-Methyl 4-isoprenyl 8-oxa bi:cyclo (3.2.1) octane - 52633B/29
M 24.05.74 FIRMENICH SA D13 E17 (E13) =DS 2521-652
lpha-sinensal prodn. - 81870W/50
M 00.00.75 FIRMENICH SA D23 E15 *CH -611-868
-Alkyl 3-hydroxy-butyl cyclopentanone(s) and their dehydration prods. - 52641B/29
M 17.06.77 FIRMENICH SA D23 E13 (D13 D21) =FR 2405-942
ri:cyclic norbornane derivs for perfumery use - 02215B/02
E 27.09.76 FIVES CAIL BABCOCK D17 =GB 1548-523
ugar refinery centrifuge - 25696A/14
W 02.06.75 FLOW PHARMACEUTICAL D22 =DS 2537-303
istributing iodine in iodophor pref. for sterilising lenses - 00230Y/01
CC 30.12.77 FMC CORP D22 E17 =EP ---2-958
liphatic di:peroxy-di:carboxylic acid prodn. - 29650B/15
CC 03.01.78 FMC CORP D25 E33 *EP ---2-960
Uniform small zeolite A crystals prodn. - 53024B/29
OD= 18.03.77 FOOD EQUIP RES EXP D13 *SU -625-674
Milk products drying appts. - 53986B/29
AU 28.12.77 FRAUNHOFER-GES FORD ANGE A26 B04 D16 (A96) *DT 58-414
Silicic acid hetero-polycondensates - 52663B/29
AU 28.12.77 FRAUNHOFER-GES FORD ANGE D15 J01 *DT 2758-415
Silicic acid hetero-polycondensate prodn. - 52664B/29
AU- 28.12.77 FRAUNHOFER CHEM FROD GMB A96 B04 D16 (A26) =NL 12-320
Stabilised, insolubilised biochemical products - 31618B/17
LU- 04.11.74 FRANCE-LUZERNE SOC C03 D13 =HU T016-661
Drying of lucerne by pressing - 39280X/21
LU- 04.11.74 FRANCE-LUZERNE SOC D13 =HU T016-662
Protein extraction from leafy green vegetation, esp. lucerne - 81626X/44
IT 18.11.77 FUJITSU LTD D15 *J5 4071-082
Appts. for producing highly pure water - 53345B/29
JI 31.08.71 FUJISAWA PHARM IND KK B04 D16 =J7 9017-028
Antibiotic fr-1923 - 16132U/12

ASB/ 29.11.77 GASBJERG K D13 *SW 7812-311
Cheese press using inflatable press elements - 54308B/29
ASC 13.10.77 BRITISH GAS CORP D15 E36 H05 J01 *EP ---2-880
Regenerating wash liquors used to remove hydrogen sulphide from gases - 52988B/29
ASP= 28.03.77 GAS PROC RES PLAN INST D14 H05 J01 *SU -625-734
hydrocarbon(s) extraction control system - 54013B/29
ENA 03.01.78 GAF CORP A60 D25 E16 *EP ---2-675
Salt-free N-acyl taurine prepn. - 52918B/29
ENE 27.08.75 GENERAL ELECTRIC CO B04 D16 =CH -611-711
Detecting antibodies by complex formation with antigens - 18490Y/11
ENM 28.11.77 GENERAL MILLS INC D21 *US 4160-054
Plaque inhibiting compsn. esp. chewing gum - 54438B/29
ENO 21.03.74 GENERAL FOODS CORP D13 E17 =CA 1057-769
Pentane-(2,3)-dione silyl ether flavourant - 72336Y/40
ENO 10.06.74 GENERAL FOODS CORP B05 D13 E16 =CA 1057-568
Cold-water soluble aspartic acid sweeteners - 75788W/46
ENO 23.12.74 GENERAL FOODS CORP A97 B05 D13 E19 =CA 1057-570
Artificial sweeteners resembling sugar - 53465X/28
ENO 25.02.75 GENERAL FOODS CORP D13 =CA 1057-564
Frozen coffee aromatics - 69013X/37
ENO 26.02.75 GENERAL FOODS CORP B05 D13 E14 =CA 1057-569
Dipeptide sweetening agent, effervescent tablet - 56082X/30
GENO 05.08.75 GENERAL FOODS CORP D13 #CA 1057-565
Aromatic distillates prodn. esp. from coffee - 16907Y/10
GENO 13.08.75 GENERAL FOODS CORP B05 D13 E14 =CA 1057-567
Low calorie sweeteners based on amino acid sweeteners - 15843Y/09
GENO 13.07.76 GENERAL FOODS CORP D13 #CA 1057-566
Sucrose crystals contg. fixed volatile flavour cpd. - 59622X/31
GENO 01.12.77 GENERAL FOODS CORP D12 (D23) =SW 7811-763
Texturised oil seed protein meat substitute - 44244B/24
GETR- 09.04.75 GETRANKEKOM LEIPZIG D16 =HU T016-716
Hydrothermic prehandling and grinding of grain, esp for brewing - 75856X/41
GHIS- 28.05.75 GHISALBERTI SPA D15 J01 (J03) =CA 1057-697
Breaking down stable emulsions, esp. factory effluents - 95570X/51
* GIDR= 24.12.76 GIDROLIZPROM HYDROL D17 E13 *SU -626-122
Mono:saccharide prodn. from vegetable materials - 54221B/29
GIOV- 19.09.74 GIOVANOLA FRERES SA D16 =SU -625-622
Fermentation of substrates - 26723X/15
GIVA 15.01.70 GIVAUDAN L & CIE SA D23 E15 =J7 9017-007
Bicyclo-(10 1 0)-tridec-1-yl-ethers used as perfume - 49399S/30
GIVA 03.11.70 GIVAUDAN L & CIE SA D23 E15 =J7 9017-011
Cyclododecane ethers - 31172T/20
GIVA 10.11.70. GIVAUDAN L & CIE SA D23 E15 =J7 9017-010
Carbocyclic odourants - 33725T/21
GIVA 08.12.70 GIVAUDAN L & CIE SA D23 E15 =J7 9017-009
Ionone and irone derivs - 40514T/25
GIVA 17.03.72 GIVAUDAN L & CIE SA D23 E15 =DS 2313-017
Perfumery compsns - contg 3-isopropyl - 60546U/41
GIVA 24.12.74 GIVAUDAN L & CIE SA D16 E15 =CH -611-491
Rendering drinks, pref. beer, bitter - 52092X/28
GIVA 16.06.75 GIVAUDAN L & CIE SA D23 E14 =GB 1548-595
Aryl substd. aldehydes, ketones and alcohols prodn. - 01402Y/01
GIVA 03.07.75 GIVAUDAN L & CIE SA D23 E15 =GB 1548-675
4,4,6-Trimethyl-2-cyclohexenone odouriferous compsns. - 47794X/25
GIVA 03.07.75 GIVAUDAN L & CIE SA D23 E15 =GB 1548-676
4,4,6-Trimethyl-2-cyclohexenone odouriferous compsns. - 47794X/25
* GIVA 29.08.75 GIVAUDAN L & CIE SA D23 E15 *CH -611-517
Perfume contg. tetra:methyl-bi:cyclo-(2,2,2) octane derivs. - 52626B/29
GIVA 15.12.77 GIVAUDAN L & CIE SA D23 E15 =EP ---2-743
Perfume compsns. having floral and spicy odours - 05947B/03
GLAS/ 04.02.77 GLASSMAN J A D22 #CA 1057-460
Double use nappy - 58954A/33
GOLD/ 30.06.71 GOLDBY S D D22 =J4 8015-388
Bandage continuously dispensing drugs through skin or mucous membrane - 53805B/29
* GOLD/ 30.06.71 GOLDBY S D D22 *J7 9016-566
Bandage continuously dispensing drugs through skin or mucous membrane - 53805B/29
GRAC 11.01.78 GRACE W R CO D17 =DT 2836-197
Spray drying solns. contg. mixture of sugars - 37194B/20
GRFJ 11.11.77 GRIFFITH LABS INC D13 #J5 4073-148
Decolouring moist heat treated pea flour - 08089B/05
* GROS/ 13.10.77 GROSJEAN D D13 *FR 2405-654
Preparing gruyere or emmental type cheese - 53054B/29
* GUIG/ 01.07.77 GUIGUE J P A D14 *FR 2405-747
Husking and grinding appts. for various prods. - 53063B/29

HAAR 19.04.74 HAARMANN & REIMER GMBH B05 D23 E14 (D13) =CA 1057-778
2-Alkoxy-4-(1-propenyl)-phenols prepn - 65705W/40
HAAR 22.12.77 HAARMANN & REIMER GMBH B02 C02 D13 E13 =EP ---2-734
Piperonylidene-crotonic acid amide derivs. prodn. - 49201B/27
HAAR 22.12.77 HAARMANN & REIMER GMBH B02 C02 D13 E13 =EP ---2-735
Piperonylidene-crotonamide derivs. prodn. - 45730B/25
* HAEN/ 14.12.77 HAENSELL G A A D15 *BR 7708-318
Tank for digestion of sewage water - B/29
* HALU= 28.05.75 HALURGY RES PLAN D15 J01 *SU -625-745
Automatic control of suspension settling tanks - 54024B/29
HARK/ 29.07.74 HARKORN K H D15 =CA 1057-866
Purifying-demicrobising waste-water - 85038W/52
* HARN 11.03.78 HARTMANN P AG A83 D22 F07 *BE -874-726
Disposable napkin folding into breeches - 52577B/29
HARS- 27.08.75 HARSCO CORP D15 =CA 1057-673
Floating scum skimmer - 66697Y/37
HAYB 04.09.72 HAYASHIBARA BIOCHEM B04 D16 (D13) =DS 2344-586
Pullulan prepn by fermentation - 07272V/05
HEFE- 01.04.76 VERSUCHS HEFEINDUST D16 (D11) =DS 2614-348
Stabilising powdery fresh baker's yeast - 72724Y/41
HEFE- 01.04.76 VERSUCH HEFEINDUSTRIE EV D16 (D11) =US 4160-040
Stabilising powdery fresh baker's yeast - 72724Y/41
HELV- 08.04.75 HELVISOL AG A60 D16 (A93) =GB 1548-660
Filler prodn from waste matl - 81385X/44
HELW/ 16.07.76 HELWIG E D14 (D23) =GB 1548-511
Liq. solids sepn. of oleaginous seeds - 06615A/04
HENK 24.10.70 HENKEL KG AUF AKTIEN D22 E16 =DS 2052-321
Quaternary ammonium base solns - 11148T/07

HENK 02.02.76 HENKEL KG AUF AKTIEN A92 D22 =CH -611-500
Laminated polyethylene sachets contg. perfume - 54102Y/31
HENK 02.11.76 HENKEL KG AUF AKTIEN D25 E33 =CH -611-812
Machine-washing solids, e.g. textiles and dishes - 33692A/19
HENK 25.11.76 HENKEL KG AUF AKTIEN D25 E36 =CH -611-813
Machine washing of solid articles - 33407A/19
HENK 02.12.77 HENKEL KG AUF AKTIEN A97 D25 (A26) =DK 7805-014
Powdered detergent contg. silicone antifoam - 42420B/23
HENK 19.12.77 HENKEL KG AUF AKTIEN D25 E19 F06 =EP ---2-746
Bleaching compsn. for textiles - 47356B/26
HENK 27.12.77 HENKEL KG AUF AKTIEN D21 E24 =EP ---2-828
Oxidative hair dyes - 51023B/28
HERM/ 04.04.78 HERMANSSON A M I A11 D13 (A97) #US 4159-982
Modifying starch with casein or a caseinate - 31502A/17
HERR/ 25.08.77 HERRNDOBLER F D11 =FR 2405-651
Ingredients and processes for mfg. rolled sugar free cakes - 00057B/01
*HIEJ 16.11.77 HITACHI PLANT ENG CONST D15 E33 M25 *J5 4070-644
Purifying zinc-contg. waste water - 53277B/29
*HIEJ 16.11.77 HITACHI PLANT ENG CONST D15 J01 M24 *J5 4070-645
Purifying oil-contg. waste water from steel mfr. - 53278B/29
*HIRO- 19.11.77 HIROSHIMA GAS KK A41 D15 E16 M11 *J5 4071-856
Cyan-contg. waste water treatment - 53519B/29
*HITA 24.11.77 HITACHI KK D15 E14 J01 *J5 4072-779
Sterilising reverse osmosis appts. - 53668B/29
*HITK 16.11.77 HITACHI METAL KK D15 *J5 4070-642
Biological denitrification of waste water - 53275B/29
*HOFF 13.01.78 HOFFMANN-LA ROCHE SA D13 E24 *BE -873-419
Colouring agent, esp. for drinks, based on natural colourant - 52539B/29
HOFF- 29.01.76 MASCH HOFFMANN K & D12 =CH -611-776
Pickle injection machine for meat - 56065Y/32
HOHN 26.11.74 HOHNEN OIL KK D13 =J7 9016-576
Food material for use in sausages, hamburger steaks and soups - 60728X/32
HONS- 01.12.70 HONG KONG SOYA BEAN D13 =J7 9017-020
Cheese product - 39733T/25
*HORI/ 18.11.77 HORI K D25 E33 *J5 4071-102
Builder for detergents - 53358B/29
HOTI/ 24.06.76 HOTIMSKY E R L D12 =CH -611-809
Fixing radial blades on rotary shaft of food chopping machine - 75936Y/43
HOUT/ 28.11.77 HOUT C W I D14 =SW 7812-151
Cheese rind planing machine - 42631B/23

ICHI/ 15.03.74 ICHIKAWA A D17 E13 =J7 9016-482
D-Ribose prodn. from D-isoascorbic acid salts - 76324Y/43
ICIL 10.05.73 IMPERIAL CHEM INDS LTD C03 D22 E19 (C02 D15) =CH -611-519
Benzisothiazolinone and quat. amm. salt-contg. compsn - 80955V/47
ICIL 10.05.73 IMPERIAL CHEM INDS LTD C03 D22 E19 (C02 D15) =CH -611-611
Benzisothiazolinone and quat. amm. salt-contg. compsn - 80955V/47
ICIL 03.11.77 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =J5 4072-298
Biocidal polyurethane(s) and polyester(s) - 33362B/18
*ICIL 22.12.77 IMPERIAL CHEM INDS LTD C02 D13 *EP ---2-893
Treatment of ruminants with aplasmomycin or related cpds. - 52996B/29
IDRE- 13.04.76 IDREX INC D15 J01 #GB 1548-766
Filter with vertically spaced horizontal filter elements - 41791X/22
IDRE- 13.04.76 IDREX INC D15 J01 #GB 1548-767
Filter with vertically spaced horizontal filter elements - 41791X/22
*INCH- 05.02.73 INST IND CHIM ALIME D15 *RU --66-168
Drinking water prodn. using portable appts. - B/29
*INCH- 23.02.73 INST IND CHIM ALIME D15 *RU --66-169
Small appts. for obtaining potable water - B/29
INFL 25.01.66 INT FLAVORS & FRAGR INC D23 E17 =J7 9017-008
Alpha-methylenealdehydes prodn. - 65209Z/00
*INFL 30.06.77 INT FLAVORS & FRAGR INC D23 E13 *US 4159-987
Substd. oxy:acetaldehyde cyclic metal cpds. - 54403B/29
*INFR- 17.02.76 INTR PROD IND FRUC D13 *RU --64-673
Vegetable flakes prodn. - B/29
*INGR- 26.04.73 COMB INGRASAM AZOTO D15 *RU --67-024
Waste water purification - B/29
INGR- 29.11.77 INGREDIENT TECHN CO D17 (D13) =SW 7812-069
Agglomeration of powdered solids, e.g. carbohydrate(s) - 42722B/23
*INOU- 10.11.77 INOUE GUM KK A92 D13 (A14) *J5 4070-467
Storage stable packed fresh milk - 53261B/29
*INOU- 21.11.77 INOUE KAGAKUSEIHIN D15 M28 *J5 4071-772
Recovering metal from waste soln. - 53494B/29
INRG 08.02.77 INST NAT RECH AGRON B04 C03 D16 =FR 2405-994
Prodn. of vaccine against viral haemorrhagic septicaemia of trout - 42229A/24
*INRO- 30.01.73 IND ROMANA PIELE D18 *RU --63-286
Circular cutter sharpening device - B/29
*INSM 25.06.74 MACROMOLECULAR CPDS INST A91 B04 D16 (A14 A26) *SU -562-093
Crosslinked methacrylic acid-tri:acryl hexa:hydro-triazine copolymer - 53942B/29
INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D13 =GB
590
Zearalanol anabolic agent prepn. - 00046Y/01
INTO 11.04.75 INT PAPER CO D22 F04 =GB 1548-610
Disposable diapers formed from matted fibres - 83495X/45
INTT 05.12.77 ITT IND INC D12 =DK 7805-503
Optimising value of meat cuts produced from animal carcass - 44
*INZA- 04.04.73 INTR IND ZAHAR D17 *RU --64-044
Sack filter installation for sugar plants - B/29
IOWA 31.12.76 IOWA STATE UNIV RES INC B04 C03 D16 #CA 105
Injectable Bordetella bronchiseptica vaccine - 27019Y/15

JAGA 20.10.77 JGC CORP D15 E36 J04 =BR 7806-891
Regenerator for wet spent active carbon - 33878B/18
JANO/ 09.06.76 JANOVTCHIK V J A97 D14 =US 4160-002
Steam injection heater for fluids e.g. food or chemicals - 72533Y/
*JAOR 17.11.77 JAPAN ORGANO KK D15 J01 *J5 4071-083
Ion exchange resin regeneration - 53346B/29
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =BR 7806-825
Low temp. maturing dental glaze - 78140A/43
*JOHJ 29.12.77 JOHNSON & JOHNSON D22 F07 *GB 2011-791
Disposable diaper with shaped absorbent pad - 53123B/29
*JOVA/ 14.10.77 JOVANOVIC D D14 L02 *FR 2406-369
Heating panel or hot plate - 53101B/29

KABI 05.12.74 KABI AB B04 D16 =IL --48-506
Polypeptide chromogenic substrates for serine proteases - 31921X/
KAKY 28.12.77 KAKENYAKU KAKO KK B04 D16 =NL 7812-616
Straight chain peptide type antibiotics K 582 M - 51279B/28
*KALE= 11.01.77 KALEV CONFECTIONARY D13 *SU -625-679
Sweets feeding and packing appts. - 53991B/29
*KANE- 24.11.77 KANEBO SHOKUHIN KK D11 *J5 4073-144
Packaged chinese noodles prepn. - 53719B/29
KANF 23.10.74 KANEGAFUCHI CHEM KK D16 H04 =J7 9017-026
Increasing growth rate of yeast culture - 24211W/15
*KANK- 17.11.77 KANKYO ENG KK D15 *J5 4071-076
Treatment of regeneration waste water contg. silicic acid - 53339B/
*KAOS 16.11.77 KAO SOAP KK D25 E34 (E19) *J5 4070-308
Detergent compsns. for marine use - 53172B/29
*KART- 06.01.78 KARTRIDGE PAK CO D12 J04 *DT 2853-629
Determining the fat content in meat products - 52826B/29
*KASH- 24.11.77 KASHIWA KAGAKU KOGY D21 E17 (E11) *J5 4073-1
Two-component foaming permanent wave compsn. - 53714B/29
*KDPE= 28.03.77 KRASD PET GAS PROC D14 H05 J01 *SU -625-734
hydrocarbon(s) extraction control system - 54013B/29
*KEMI- 09.01.78 KEMIN INDS INC C03 D13 *DT 2824-830
Stable emulsified liquid starch prod. - 52805B/29
*KENY/ 10.11.77 KEN Y A97 C03 D22 F09 *J5 4070-404
Treating timber by diffusing in gaseous ammonia then formaldeh
53233B/29
KIKK 09.03.74 KIKKOMAN SHOYU KK D13 E19 =J5 0121-449
Removing bitter taste from foods - 53837B/29
*KIKK 09.03.74 KIKKOMAN SHOYU KK D13 E19 *J7 9017-014
Removing bitter taste from foods - 53837B/29
*KIKK 10.11.77 KIKKOMAN SHOYU KK D16 *J5 4070-497
Botrytis-incubated wine prodn. - 53269B/29
KILC- 01.12.77 KILCHER-CHEMIE D15 J01 =DK 7805-148
Cross-flow filtering appts. - 44431B/24
KIMB 27.09.76 KIMBERLY CLARK CORP D22 =CA 1057-462
Perineal shield and discharge containment - 07998A/04
*KIMU/ 11.11.77 KIMURA M D13 (D16) *J5 4070-477
Health drink - 53263B/29
*KINJ- 10.11.77 KINJIRUSHI WASABI D13 *J5 4070-455
Treating foodstuff prepd. from soybean to remove soybean od
53259B/29
KITA 05.10.72 KITASATO RES INST B04 C03 D16 =SU -625-623
Killed mycoplasma vaccine for protection of domestic anim
11403V/07
KNAP 24.02.70 KNAPSACK AG D25 E34 =J7 9016-959
Alkaline tripolyphosphate granulate - 56900S/35
KNVS 13.12.75 GES KERNENERGIE SCH D15 =IL --50-782
Water desalination by reverse osmosis - 45410Y/26
*KOBA- 16.11.77 KOBAYASHI KOSEI KK A96 D21 *J5 4070-434
Cosmetics prepn. - 53243B/29
*KOBA- 16.11.77 KOBAYASHI KOSEI KK A96 D21 (A26) *J5 4070-437
Overcoating compsn. for lips improving durability and gloss of roug
53246B/29
*KOGY 24.11.77 IND RES INST OF JAPAN D15 *J5 4073-467
Treatment of ammonium ion-contg. waste water - 53752B/29
*KONI/ 18.11.77 KONISHI S D13 *J5 4073-196
Sterilisation of rice used for sake prodn. etc. - 53730B/29
*KORY- 19.11.77 KORYU KOGYO KK A97 D15 (A14 A17) *J5 4071-786
Water purificn. by reverse osmosis - 53506B/29
*KORY- 19.11.77 KORYU KOGYO KK D15 *J5 4071-851
Water purificn. by reverse osmosis - 53517B/29

0.11.77 KRAFT INC D13 =DK 7805-411
ese-making process using concentrate of protein fat and salts -
98B/14
/ 02.03.78 KROYER K A81 D22 F04 *BE -874-567
der-contg. fibrous sheet mfr. - 52566B/29
/ 07.01.78 KUCKENS A D15 *DT 2800-612
water desalination - 52760B/29
23.12.76 KUKIDENT KRISP K KG A96 D21 E36 (E16) =HU H002-443
ter soluble tablet for cleaning dentures - 42218A/24
02.03.76 KULLING H B07 D14 J04 =CH -612-003
moval of a vaporised liq. from a gas stream - 65269Y/37
15.11.77 KURABO IND KK D15 *J5 4070-643
moval of heavy metal ions from effluents - 53276B/29
/ 18.02.77 KURGULTSEVA L I D23 F01 *SU -626-127
tton seeds de:lintering - 54226B/29
19.11.77 KURITA WATER IND KK D15 *J5 4071-773
ating large quantities of sludge - 53495B/29
16.11.77 KURIMOTO IRON WORKS KK C04 D15 *J5 4071-460
treatment of sludge - 53434B/29
05.01.78 KUSTERS E D15 J01 *DT 2800-425
er for reverse osmosis or ultrafiltration - 52733B/29
05.01.78 KUSTERS E D15 F07 J01 *GB 2011-796
lf-cleaning liq. filter system - 53126B/29
11.11.77 KYOEI KAGAKU KOGYO D21 *J5 4070-439
ir tonic for preventing dandruff etc. - 53248B/29
W 09.11.77 KYOWA FERMENTATION KK C03 D13 *J5 4070-995
ed for culture of red sea-bream - 53307B/29
W 21.12.77 KYOWA HAKKO KOGYO B03 C02 D22 E13 =GB 2011-

N-Substd. fortimicin A derivs. - 51129B/28
W 21.12.77 KYOWA HAKKO KOGYO CO LTD B03 C02 D22 E13 =GB
-894
2'-Di:acyl or alkyl fortimicin B derivs. - 51130B/28
X 24.11.77 KYOWA KAKO KK D15 E36 *J5 4073-465
uorine removal from waste water - 53750B/29

) 27.12.77 LABOFINA SA A97 D25 H03 (D15) =DT 2855-158
urfactant compsn. for treating oil slicks and beaches - 47162B/26
= 04.12.75 LENGD ENG CON INST D15 *SU -625-773
ectro-coagulator for treating dispersed systems - 54046B/29
26.10.77 LEE PHARMACEUTICALS A96 D21 G03 =J5 4071-131
rthodontic adhesive for bonding teeth to brackets - 35802B/19
= 28.11.74 LENGD FIRST MED INS A96 D21 *SU -625-711
ental filling and cementing compsn. - 53999B/29
05.03.75 GRUPPO LEPETIT SPA B04 D16 =CH -611-931
eichomycins A, and A2 prepn. from Actinoplanes teichomyceticus -
2165X/39
05.03.75 GRUPPO LEPETIT SPA B04 D16 =IL --49-094
eichomycins A, and A2 prepn. from Actinoplanes teichomyceticus -
2165X/39
= 06.12.76 LENGD REFRIG IND D13 *SU -625-677
assed drink prepn. from whey - 53989B/29
)= 25.03.74 LENGD ROSREMMEKHPRO D12 *SU -625-671
ontinuous feed device for meat-cutting unit - 53983B/29
J= 21.12.76 LITH BR BUTT CHEESE D13 (D16) *SU -625-676
rink prodn. from buttermilk - 53988B/29
- 03.01.78 LIFE SAVERS INC D13 #NL 7800-058
lavoured chewing gum with prolonged sweetness - 45680A/25
) 23.12.77 LINGENS & SOHNE D15 =EP ---2-769
ctivated sludge treatment of waste water - 49277B/27
M 03.11.77 LINDE AG D15 =J5 4073-468
wo/stage biological sewage treatment - 37266B/20
C 15.11.77 LION DENTIFRICE KK D21 E17 (E12) *J5 4070-436
ntiperspirant avoiding blockage of nozzle - 53245B/29
Y 05.07.73 LION FAT & OIL KK D25 E34 (E12) =J7 9016-521
oating granular detergent to e.g. improve flowability - 74700W/45
Y 21.11.77 LION FAT & OIL KK A96 D21 (A11) *J5 4072-207
hampoo compsn.. - 53543B/29
T 16.11.72 LOCTITE CORP A96 D21 =DS 2357-324
ental filling compsns. contg. urethane-acrylate monomers - 43934V/24
T 22.11.77 LOTTE KK D13 =J5 4073-157
hewing gum compsn. contg. liq. centre - 42693B/23
E/ 09.01.78 LUDECKE A D15 *DT 2800-689
orce-fed dewatering plant for sewage farm sludge - 52771B/29

GA= 04.01.76 MAGARACH VIT WINE C03 D13 (D16) *SU -625-680
Fodder yeast biomass prodn. from press cake and stalks of vine -
53992B/29
KS/ 04.04.75 MAKSIMUK P S D17 *SU -626-121
Sugar juice defecator - 54220B/29
KS/ 01.04.77 MAKSIMO V G M D15 J01 *SU -625-746
Liquid cleaning filter used, e.g. for natural and aq. waste - 54025B/29
LG- 21.12.77 MALGLEN CONCRETE TA D15 *GB 2011-975
Subterranean sewage disposal appts. formed in situ - 53157B/29

*MATM 15.11.77 MATSUMOTO SEIYAKU KOGYO D21 *J5 4070-435
Cosmetic compsn. - 53244B/29
*MATW 21.11.69 MATSUSHITA ELEC WORKS A81 D22 E14 F09 *J7 9016-561
Impregnation of wood with liq. chemical e.g. preservative or plastic - 53803B/29
*MAZN 18.11.77 MARUZEN KASEI KK B03 D13 E13 *J5 4073-158
Refining sweet substance extracted from Stevia leaves - 53720B/29
*MCMA/ 05.06.76 MCMASTER A D15 J01 *GB 1548-697
Feed-water deaerator for steam generators - 53110B/29
MEAC 22.08.77 MEAD CORP A92 D13 =J5 4072-184
Aseptic packaging of acid foodstuffs - 15978B/09
*MECA- 07.02.74 INST MECAN AGRICUL D13 *RU --64-862
Cereals fine milling machine - B/29
*MECA- 12.02.74 INTR MECANN MASINI D15 *RU --64-202
Water aeration appts. for treatment station basins - B/29
*MECA- 06.05.74 INST MECAN AGRICUL D13 *RU --64-081
Chives and onions sorting appts. - B/29
MEIJ 20.10.72 MEIJI CONFECTIONARY B02 D16 =J7 9017-029
Cephalosporanic acid derivs prepn - 71797V/41
MEIJ 23.08.76 MEIJI SEIKA KAISHA B04 D16 =US 4160-026
Weakly basic oligosaccharide antibiotics and immuno:potentiators - 18096A/10
MEIP 07.12.76 MEIJI MILK PRODS KK D13 E13 #CA 1057-747
Beta:lactose prodn. - 08334Y/05
MERC/ 26.08.74 MERCIER G D18 =SU -625-624
Skin/hide fleshing machine - 21098X/12
MERI 11.03.74 MERCK & CO INC A97 D16 H01 =CH -611-932
Clarifying aq. xanthan rubber solns - 64255W/39
MERI 16.09.75 MERCK & CO INC A11 D16 =CA 1057-746
Propylene glycol alginates prepn. - 23870Y/14
*MERI 03.10.77 MERCK & CO INC A91 B02 D16 *US 4160-083
Chromatographic sepn. of antibiotic C-076 components - 54453B/29
*MERI 11.10.77 MERCK & CO INC A91 B02 D16 *US 4160-084
Chromatographic sepn. of antibiotic C-076 components - 54454B/29
MERI 28.11.77 MERCK & CO INC B04 D16 =NO 7803-976
Pneumococcal vaccine contg. capsular polysaccharide - 44422B/24
MERI 29.12.77 MERCK & CO INC B05 D22 E14 =EP ---2-834
Salicylic acid derivs. prepn. - 03944B/02
*METG 02.09.70 DRAVCO CORP D15 *US 4159-945
Nitrate and solids removal from waste water - 54380B/29
*MICR- 09.08.76 MICROLIFE TECHNICS C03 D13 (D16) *US 4160-038
Lactic acid ferment flavoured pet food - 54429B/29
*MICR= 05.04.76 MICROBIOL VIRUSOLOG D16 *SU -625-747
Cartridge filter for continuous sepn. of microbiological suspensions - 54026B/29
MILE 10.12.73 MILES LABORATORIES INC B05 D16 =RU --63-720
4-(R)-hydroxy-cyclopentane-1,3-dione microbiological prepn. - 30612W/19
MILE 28.10.77 MILES LABORATORIES INC D13 =J5 4073-156
Juicy self-basting sausage-like food prods. - 07733B/04
MILE- 09.01.78 MILERB AG D13 =DT 2900-098
Preserving herbs to avoid loss of volatiles - 35303B/19
MILE- 09.01.78 MILERB AG D13 =GB 2011-775
Preserving herbs to avoid loss of volatiles - 35303B/19
*MINA/ 09.11.77 MINAKAWA K D13 *J5 4070-454
Removing cadmium from rice - 53258B/29
*MINE= 07.04.75 MINE CHEM ORE RES D15 *SU -626-043
Magnetic treatment appts. for water and aq. systems - 54145B/29
*MIPR= 29.04.77 MINSK PRODMASH EXP D13 *SU -625-675
Milk sterilisation appts. - 53987B/29
*MIRA- 18.12.74 MIRAJ INTR COSMETIC D21 *RU --63-706
Feet conditioning cream - B/29
*MIRA- 19.02.75 MIRAJ INTR COSMETIC D21 *RU --63-707
Day cream - B/29
*MIRA- 27.06.75 MIRAJ INTR COSMETIC D21 *RU --63-709
Cosmetic rouge compsn. - B/29
*MIRA- 27.06.75 MIRAJ INTR COSMETIC D21 *RU --64-548
nutritional cream for greasy skin - B/29
*MIRA- 27.06.75 MIRAJ INTR COSMET D21 *RU --64-735
Pre-shaving lotion - B/29
*MIRA- 27.06.75 MIRAJ INTR COSMET D21 E19 *RU --64-736
Shaving foam compsn. - B/29
*MIRA- 27.06.75 MIRAJ INTR COSMET D21 E17 *RU --64-737
Hydrating lotion compsn. - B/29
*MIRA- 27.08.75 MIRAJ INTR COSMET D21 *RU --64-738
Rouge compacts - B/29
*MITC 22.11.77 MITSUI PETROCHEM IND KK C03 D16 (D13 D22) *J5 4073-182
Antimicrobial enzyme prepd. by culturing Bacillus bacteria - 53721B/29
*MITN 12.11.77 MITSUBISHI GAS CHEM IND D16 *J5 4070-490
Prodn. of Saccharomyces fungi - 53264B/29
*MITO 22.11.77 MITSUBISHI HEAVY IND KK D15 E36 J01 *J5 4072-770
Treatment of soln. from wet process desulphurisation of waste gas - 53661B/29
MITR 23.06.76 MITSUBISHI RAYON KK A88 D15 J01 #GB 1548-938
Removal of oil from water using fibrous layers - 86405Y/48

*MITR 21.11.77 MITSUBISHI RAYON KK D15 J01 *J5 4071-779
Backwash type adsorber - 53500B/29
MITU 22.03.73 MITSUBISHI CHEM IND KK D16 =J4 9117-666
Aerobic Glaucoma sintillans cultivation - 53838B/29
*MITU 22.03.73 MITSUBISHI CHEM IND KK D16 *J7 9017-025
Aerobic Glaucoma sintillans cultivation - 53838B/29
MITU 18.11.77 MITSUBISHI CHEM IND KK B04 D16 =J5 4073-112
Immune function regulator production - 44023B/23
MITU 21.11.77 MITSUBISHI CHEM IND KK B04 D16 =J5 4073-113
Immune function regulator production - 44023B/23
*MITU 24.11.77 MITSUBISHI CHEM IND KK B01 D16 *J5 4073-191
Microbiological prodn. of androstane derivs. - 53728B/29
*MITU 24.11.77 MITSUBISHI CHEM IND KK D15 *J5 4073-469
Denitrification process for water - 53753B/29
*MITU 03.01.78 MITSUBISHI CHEM IND KK D15 J01 K06 *DT 2800-194
Regenerating mixed ion exchange resins for water desalination - 52719B/29
*MITW 14.11.77 MITSUBISHI STEEL MFG KK C03 D13 *J5 4070-974
Mixed feed contg. dried food garbage - 53304B/29
MJOL- 15.12.72 MJOLKCENT EKON FORE D13 =J7 9017-019
Edible spreadable water-in-oil fat emulsion - 47535V/26
MJOL- 23.11.77 MJOLKCENT ARLA EKON D13 =GB 2011-942
Low calorie margarine mfr. - 24016B/13
MLCW 28.12.77 BYK-MALLINCKRODT A96 B04 D16 (A26) =NL 7812-320
Stabilised, insolubilised biochemical products - 31618B/17
MOGI- 01.12.77 MOGILEVSKY MYASOKOM D18 #SW 7713-663
Continuous automatic cleaning of animal hides - 45195B/24
MOLE- 16.03.76 GES MOLEKULARBIOLOG D16 #CH -611-646
Recovering unicellular protein grown on methanol - 48211X/26
*MOLS- 30.10.78 MOLSON CIES LTD D16 *BE -874-493
Shortened fermentation process e.g. of beer - 52564B/29
*MONO- 14.10.77 MONOT SOC PROD LAB D13 *FR 2405-658
Granular dietetic compsn. contg. wheat bran, protein, and glucide(s) - 53055B/29
*MORA- 09.11.73 INTR MORARIT PANIFI D11 *RU --66-845
Discontinuous belt conveyor for bakeries - B/29
MORI- 17.04.74 MORITA KAGAKU KOGYO D13 =J5 0135-256
Improving the taste and flavour of soy - 53809B/29
*MORI- 17.04.74 MORITA KAGAKU KOGYO D13 *J7 9016-581
Improving the taste and flavour of soy - 53809B/29
*MORI/ 25.11.77 MORIYAMA M D13 *J5 4073-138
Nutrient additive for foods - 53716B/29
*MORO/ 31.01.77 MOROZ M A D22 *SU -625-714
Chemical steriliser for surgical instruments - 54002B/29
MOSE/ 04.06.73 MOSER F A18 D15 J04 =CA 1057-736
Horizontal reactor for polymsn. sewage oxidation etc. - 87495V/51
*MOVA= 26.01.77 MOSC VACCINE SERUM D16 *SU -626-117
Microbial toxin micro-biosynthesis - 54216B/29
*MURA/ 09.11.77 MURAI Y D21 E36 *J5 4070-438
Treating scalp and hair by blowing with ozone - 53247B/29
*MURA/ 09.11.77 MURAI Y D21 E14 (E36) *J5 4070-442
Uniform, fast-dyeing of hair - 53250B/29
*MURA/ 11.11.77 MURAI Y D21 E17 (E36) *J5 4070-440
Hair nourishing process by blowing with oxygen or ozone - 53249B/29
*MURA/ 16.11.77 MURAKAMI E C04 D15 *J5 4070-964
Fertiliser prepn. from animal excrement, complex bacteria and shells - 53299B/29
*MURA/ 16.11.77 MURAKAMI E D15 J01 M11 *J5 4071-078
Removal of toxic cpds. and heavy metals from waste water - 53341B/29

NAKA- 19.06.75 NAKANO SUMISE KK D16 (D13) =J5 1151-399
Preparation of vinegar - 53841B/29
*NAKA- 19.06.75 NAKANO SUMISE KK D16 (D13) *J7 9017-038
Preparation of vinegar - 53841B/29
NAKA- 08.07.75 NAKANOSUTEN KK D16 (D13) =J5 2007-498
Continuous prodn. of vinegar - 53842B/29
*NAKA- 08.07.75 NAKANOSUTEN KK D16 (D13) *J7 9017-039
Continuous prodn. of vinegar - 53842B/29
*NAKA/ 24.11.77 NAKANO S D16 *J5 4073-199
Citrus fruit liqueur prodn. - 53733B/29
NATR 19.10.76 NATIONAL RES DEV CORP B04 D16 =US 4160-205
Determining bacterial activity - 30579A/17
NATR 02.12.77 NATIONAL RES DEV CORP D15 =DK 7805-322
Liquid aerating device esp. for waste water - 44408B/24
NATT 07.03.75 NAT STARCH & CHEM CORP A96 D21 F07 (D22) =CA 1057-726
Water swellable absorption agent for body fluids - 72547X/39
NEST 09.06.72 SOC PROD NESTLE SA D13 =J7 9017-018
Highly nutritive milk product - 02256V/02
NEST 01.04.74 SOC PROD NESTLE SA D13 =US 4160-044
Fruit-contg processed cheese prodn - 67587W/41
NEST 07.06.74 SOC PROD NESTLE SA D13 =J7 9017-017
High quality caseine prodn. from skimmed milk - 85817W/52
NEST 27.04.77 SOC PROD NESTLE SA D13 J08 =CH -612-002
Cryogenic desiccation of a product by hyper-frequancies - 76255A/43
NEST 04.01.78 SOC PROD NESTLE SA D13 =NL 7900-040
Removing flatulent sugars from soya - 40639B/22
*NICO- 03.12.73 SS NICOLAU INST D16 *RU --66-689
Cell culture growth on solid substrate - B/29
*NIKK- 12.11.77 NIKKEN FOOD D11 *J5 4070-451
Starting material for noodles - 53256B/29
NIKL 09.05.75 JAPAN STEEL WORKS LTD D15 =GB 1548-421
Processing cattle excrement to recover fibres - 61461X/32
NIKM 06.11.71 NIKKEN KAGAKU KK D13 =J4 8052-957
Boiling stored rice in aq. sugar alcohol soln. - 53807B/29
*NIKM 06.11.71 NIKKEN KAGAKU KK D13 *J7 9016-577
Boiling stored rice in aq. sugar alcohol soln. - 53807B/29
*NIKN 06.11.71 NIPPON KOKAN KK D13 *J7 9016-577
Boiling stored rice in aq. sugar alcohol soln. - 53807B/29
*NIPN 15.02.68 NIPPON TOKETSU KANS B04 D16 *J7 9016-569
Storage stable antigen coating sample prepn. - 53806B/29
*NIRA 22.11.77 UNITIKA KK A41 D15 E14 J01 (A13 D22) *J5 4072-
Treatment of waste soln. by/produced in regeneration of active
53658B/29
*NISB 16.11.77 JAPAN TOBACCO & SALT PUB D22 *J5 4070-492
Sterilising plant growth medium by heating - 53266B/29
*NISC 17.11.77 NISSAN CHEM IND KK D16 E17 *J5 4070-493
Unsatd. alcohol prodn. - 53267B/29
*NISH- 16.11.77 NIPPON SHASHIN INSA A17 D23 E14 (A60 E15)
4070-373
Scent-retaining, decorative, strong moulding - 53212B/29
*NISS 18.11.77 NISSHIN FLOUR MILL KK D16 *J5 4073-197
Raw material for prodn. of koji - 53731B/29
NISW 03.12.71 NISSHIN OIL MILLS KK D13 =J4 8061-655
Proteinaceous, jellyfish-like food - 53808B/29
*NISW 03.12.71 NISSHIN OIL MILLS KK D13 *J7 9016-578
Proteinaceous, jellyfish-like food - 53808B/29
NISW 25.09.72 NISSHIN OIL MILLS KK A91 D15 (A14) =J7 9016-4
Waste water coagulating treatment - 18148W/11
NITA 30.03.76 NITTETU CHEM ENG LT C04 D15 E35 #GB 1548-651
Treating aq. effluents contg. organic impurities - 72696Y/41
*NITL 17.11.77 NITTO ELECTRIC IND KK D15 *J5 4071-099
Super-pure water prodn. - 53356B/29
NITL 18.11.77 NITTO ELECTRIC IND KK A88 D15 J01 (A26) =J5
785
Self-supporting permselective polyimide membrane - 40894B/22
*NITL 10.01.78 NITTO ELECTRIC IND KK A88 D15 J01 (A26) *DT 2850
Selective permeability membranes - 52816B/29
*NITR- 15.07.76 NITROKEMIAI IPARTEL D15 J01 *HU T016-668
Prepn. of high-purity, hydroxyl-ion-saturated ion exchangers -
NMHB 14.03.77 NORDISCH MASCH R BAADER D12 #CA 1057-472
Fish fillet skinning machine - 02256A/02
NORV- 30.11.77 NORVIDAN ENG APS D14 =DK 7705-299
Ring mould press for fodder pellets - 42688B/23
NORV- 30.11.77 NORVIDAN ENG APS D14 =SW 7812-285
Ring mould press for fodder pellets - 42688B/23

*OAKE- 10.03.78 OAKES E T LTD A31 D14 J02 *BE -874-734
Mixer having concentric rings of axial mixing elements - 52580B/2
*OILI= 29.05.75 OIL IND RES INST D12 *SU -543-378
Separator for meat and bone residues - 53935B/29
OKAD/ 00.00.65 OKADA S A97 D18 =J7 9016-600
Cigarette filters from oh contg polymers etherified to - 81184P/00
OMNI 11.01.78 OMNIUM ASSAINISSEME D15 #DT 2801-030
Purificn. of waste water by percolation through activated ca
29152A/16
OREA 22.02.74 L'OREAL SA A96 D21 E24 (E23) =CH -611-515
4'-N,N-Disubstd. diphenylamines from indoanilines - 59141W/36
OREA 22.02.74 L'OREAL SA A96 D21 E24 (E23) =CH -611-516
N-alkyl-monosubstd. diphenylamines from indoanilines - 59142W/
OREA 16.05.74 L'OREAL SA A96 D21 =CH -611-635
Quat. polymers for hair treating compsns. - 80223W/49
OREA 20.08.76 L'OREAL SA D25 E24 =GB 1548-830
(N)-Carbamoylalkyl (meta)-phenylene diamine derivs. - 04159A/0
OREA 19.08.77 L'OREAL SA D21 E14 (E12) =J5 4070-441
Hair colouring compsn. contg. direct colourants - 14188B/08
OREA 30.12.77 L'OREAL SA A96 D21 E19 (A25) =DT 2856-716
Cosmetic for removing make/up from the eyes - 48993B/27
OREA 30.12.77 L'OREAL SA A96 D21 E19 (A25) =NL 7812-611
Cosmetic for removing make/up from the eyes - 48993B/27
OREA 06.01.78 L'OREAL SA D25 =DT 2900-370
Cosmetic skin cleaning compsn. - 50873B/28
OREA 06.01.78 L'OREAL SA D25 =GB 2011-786
Cosmetic skin cleaning compsn. - 50873B/28
OWEI 20.03.75 OWENS-ILLINOIS INC B04 D16 L02 =CA 1057-682
Immobilising supported enzymes for higher stability - 09024X/05
*OWEN 10.07.78 OWENS-CORNING FIBER CORP A92 D13 *US 4159-
Olive processing tank contg. brine - 54348B/29
*OXOI- 30.12.77 OXOID LTD D16 J04 *EP ---2-967
Pelleted safety catalyst system held in metal foil net - 53028B/29

A 19.03.76 FARMOS OY C03 D13 =SU -626-678
odder additive for ruminants - 69238Y/39

N= 11.04.77 PENZA ENG CONS INSC D12 L02 *SU -626-064
ypsum cement setting retardant - 54165B/29
S 04.10.74 PERSONAL PRODUCTS CO D22 =CA 1057-463
anitary napkin for wear in undergarment - 42361W/25
J 03.01.78 PERMUTIT GMBH D15 *DT 2800-516
oftening water by ion exchange - 52745B/29
07.08.70 PFIZER INC B04 D16 =J7 9016-595
ntibiotic cp-21635 - 11088T/07
03.01.78 PFIZER INC B03 D22 E13 =GB 2011-890
ntibacterial 11-alkanoyl-4-isonitrile oleandomycin cpds. - 84004A/46
03.01.78 PFIZER INC B03 D22 E13 =NL 7900-005
ntibacterial 11-alkanoyl-4-isonitrile oleandomycin cpds. - 84004A/46
03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =NL 7900-006
ntibacterial 4-de:oxy-4-acylamido macrolide cpds. - 49015B/27
03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =NL 7900-007
-Deoxy-4-aryl-glyoxamido and aroyl thio:formamido-oleandomycin(s) - 9016B/27
R- 18.03.75 PHARMA-VERTRIEB AG A97 B05 C03 D22 =CA 1057-654
otentiated germicidal compns - 61601X/33
P 28.11.77 PHILLIPS PETROLEUM CO C03 D16 (D13) #SW 7713-418
ingle cell protein prodn. from mixed thermophilic culture - 44073A/25
18.04.75 PIELKENROOD-VINITEX NV D22 =CH -611-513
irculating germ-free air round an operating table - 81162X/44
N- 18.03.76 PIONEER ASSOC D11 *US 4159-879
omestic bread mixer and kneader - 54351B/29
C 06.08.74 MAX PLANCK GES WISSENSCH B04 D13 (B07 D21 D25) S 4159-988
ynthetic phospholipids with surfactant activity - 14896X/09
I/ 11.10.77 PLOIX P J Y D21 *FR 2405-988
torage-stable perfumed coconut oil - 53083B/29
K 18.11.77 POLA KASEI KOGYO KK A96 D21 (A26 D23) *J5 4073-136
erfume compsn. with good fragrance retention - 53715B/29
K 22.11.77 POLA KASEI KOGYO KK D21 E12 =J5 4073-129
osmetic skin treatment formulation contg. an organo germanium cpd. - 0915B/22
LY= 09.09.76 POLYMERS MECHANICS DEPT A96 D22 #CH -611-794
nternal bone prosthesis with binder contg. antiseptic - 23472A/13
UE 29.12.77 POUDRES & EXPLOSIFS D23 E14 *NL 7812-474
2,4-di:nitro-6-tert-butyl-3-methyl-anisole from nitration mixts. - 53862B/29
UE 29.12.77 POUDRES & EXPLOSIFS D23 E14 *NL 7812-475
Prepn. of 2,4-di:nitro-6-tert. butyl-3-methyl-anisole - 53863B/29
UJ/ 03.01.78 POUJADE O D13 (D22) =DT 2900-064
Water-soluble sugar prod. contg. essential oils - 49014B/27
UP/ 11.10.77 POUPARD M D11 =FR 2405-652
Treating and deep freezing of raised dough prods. - 33315B/17
CO- 14.10.77 PQ CORP D25 E33 =FR 2405-991
Non-agglomerating detergent mixts. for laundering - 33607B/18
OC 17.09.74 PROCTER & GAMBLE CO A25 D22 (A96) =CA 1057-593
Cellular poly-urethane particles treatment with liquid lubricant - 24866X/14
OC 19.11.74 PROCTER & GAMBLE CO A96 D22 F07 =CA 1057-457
Disposable diaper with absorbent pad - 35648X/19
OC 18.08.75 PROCTER & GAMBLE CO D13 (D12) =GB 1548-971
Minced meat substitute from protein, esp. soya - 12731Y/08
OC 23.12.77 PROCTER & GAMBLE CO A97 D25 E19 *EP ---2-857
Detergent article comprising surfactant mixt. on insoluble substrate - 52978B/29
OJ- 17.08.77 PROJ CHEM VERFAHREN D17 =J5 4070-444
Sugars and opt. cellulose and lignin extn. from vegetable material - 14176B/08
VA= 14.03.77 PERM VACCINE SERUM B04 D16 *SU -618-958
Pure staphylococcus culture anatoxin prodn. - 53968B/29
ZE- 03.11.76 PRZEDSIEBIORSTWO PO D12 =GB 1548-467
Machine to extract edible muscles from crustacea - 19714A/11

PP 24.04.72 Q.P. CORP D13 (D16) =J4 9001-763
Egg drink mfr. - 53811B/29
PP 24.04.72 Q.P. CORP D13 (D16) *J7 9016-597
Egg drink mfr. - 53811B/29
PP 31.07.73 Q.P. CORP D13 =J5 0035-353
Food material prodn. - 53836B/29
PP 31.07.73 Q.P. CORP D13 *J7 9017-013
Food material prodn. - 53836B/29

AK- 13.03.78 REAKTOR-BRENNELEMEN D15 E31 K05 M25 *BE -874-799
Simplified process for recovering uranium cpds. - 52597B/29
CK 25.10.74 RECKITT & COLMAN PR A96 D21 =CH -611-514
Hair shampoo contg polyethylene imine conditioner - 16912X/10

REDK- 03.07.75 REDKEN LAB INC A96 D21 E33 (A23 A26) =GB 1548-966
Cold-waving hair, with pre-bonding by aq. soln. of resin - 75395X/40
REDK- 03.07.75 REDKEN LAB INC A96 D21 E33 (A23 A26) =GB 1548-967
Cold-waving hair, with pre-bonding by aq. soln. of resin - 75395X/40
RERE- 12.06.75 RESEARCH PROD REHOV A97 B04 D16 =IL --47-468
Crosslinking proteins, partic. enzymes - 02310Y/02
RESE 12.07.74 RESEARCH CORP B04 D16 K08 =CH -611-709
Gonorrhoea antibodies detection - 07910X/05
RETO 04.12.74 REYNOLDS TOBACCO CO D16 =CH -611-647
Heat-stable lactase prepn. - 46441X/25
RETO 02.09.76 REYNOLDS LEASING D18 =CH -611-779
Recovery of condensable organic cpd. used to swell tobacco - 43527Y/25
RHOD- 24.03.75 RHODIA INC D23 E17 =CA 1057-775
Methyl-heptenone prodn. - 68632X/36
RHON 14.03.74 RHONE-POULENC INDUSTRIES A82 D16 F09 (A11) =CA 1057-872
Paper coatings based on vinyl polymers - 64291W/39
RHON 10.07.75 RHONE-POULENC INDUSTRIES A25 D25 E19 F06 (A87) =US 4159-978
Hydrophilic polyacetal as antisoil agent for textiles - 05648Y/04
*RHON 16.01.78 RHONE-POULENC INDUSTRIES D17 (D16) *BE -873-480
Xanthomonas polysaccharide(s) used to prepare aq. gels - 52555B/29
*RIKA 11.11.77 RIKAGAKU RES LABS KK D16 *J5 4070-491
Microbial mycelium prodn. - 53265B/29
*RIKA 22.11.77 RIKAGAKU RES LABS KK B04 D16 *J5 4073-183
Deoxyribonucleic acid joining enzyme - 53722B/29
RITR= 09.09.76 RIGA TRAUMATOLOGY A96 D22 #CH -611-794
Internal bone prosthesis with binder contg. antiseptic - 23472A/13
*ROHG 20.12.77 ROHM GMBH C03 D13 *GB 2011-910
Animal protein hydrolysates useful for animal feedstuffs - 53143B/29
ROUR 28.09.73 ROURE BERTRAND DUPO D23 E13 =J7 9017-006
Musk scent compsns. - 24619W/15
RUGG- 30.05.75 RUGGLI K AG D22 F04 =GB 1548-714
Tampon compressing system - 94630X/51
*RYAZ= 24.01.77 RYAZAN AGRIC EQUIP D14 *SU -625-682
Bulb upper growth cutter - 53994B/29

SAAR- 01.12.77 SAARBERG-FERNWAERME D15 =DK 7805-432
Thermal sewage sludge treatment - 42492B/23
*SACC/ 06.01.78 SACCO E A88 D15 *DT 2823-920
Biological sewage treatment - 52804B/29
SACH 10.04.72 SACHSISCHE SERUMWERK KG B04 D16 =RU --64-555
Oral cholera vaccine prodn. - 60051V/34
*SADE/ 23.06.77 SADEH A D12 *IL --52-376
Utensil for cutting and pounding meat - B/29
SAGA 27.01.77 SAGAMI CHEM RES B05 D13 E16 (E14) =GB 1548-553
Di:peptide amino acid addition cpds. - 57088A/32
SAKA 30.06.77 OTSUKA PHARM KK B02 D16 =FR 2405-941
Deca:hydro-naphthalene-spiro-benzofuran derivs. - 84059A/47
*SAKA/ 10.11.77 SAKAI T D16 *J5 4070-495
Pectin prodn. - 53268B/29
SANO 18.04.69 SANDOZ AG B02 D16 =J7 9016-520
Ergot alkaloids - 78447R/42
SANO 01.11.74 SANDOZ AG B04 D16 =IL --48-384
Isolation of high purity thermolabile E. coli enterotoxin - 38393X/21
SANY 26.11.73 SANKYO KK B02 C02 D13 =CH -611-906
7-Beta-Acylamino-7 alpha-methoxy-cephalosporins - 38027W/23
SANY 08.11.76 SANKYO KK B04 D16 =GB 1548-787
Inactivating microbial toxins and weakening vaccines - 35268A/20
*SATO/ 17.11.77 SATO T D15 *J5 4071-086
Fresh water prodn. from sea water - 53348B/29
*SCAN- 20.09.77 SCAN VAST EK FOR D12 *SW 7710-511
Sausage stuffer with stuffing tubes mounted on rotary holder - 54296B/29
SCHR- 09.07.76 SCHROEDER & CO D13 =GB 1548-490
Mayonnaise and/or derived prods. continuous mfr. - 75944Y/43
*SCHR/ 14.02.77 SCHROEDER J J C03 D13 *US 4160-041
Solid animal feed supplement block prepn. - 54430B/29
SCHW- 22.12.77 SCHWEIZER L GMBH D18 =EP ---2-739
Continuous leather drying press - 49248B/27
SCIE 30.11.77 SCIENCE UNION & CIE B04 D16 =DK 7805-375
Depsipeptide extract of Fusarium equiseti - 42405B/23
SCIE 30.11.77 SCIENCE UNION & CIE B04 D16 =SW 7812-298
Depsipeptide extract of Fusarium equiseti - 42405B/23
*SEBS- 13.10.77 SEB SA D14 *FR 2405-685
Ice-cream mixer for domestic use - 53058B/29
SEIS 15.04.74 SEISAN KAIHATSU KAGAKU D13 =J5 0132-195
Dried storage stable Miso prepn. - 53840B/29
*SEIS 15.04.74 SEISAN KAIHATSU KAGAKU D13 *J7 9017-037
Dried storage stable Miso prepn. - 53840B/29
*SEKI 22.11.77 SEKISUI CHEMI IND KK A91 D15 (D13 D17) *J5 4073-463
Starch-contg. waste water treatment - 53748B/29
*SHEF/ 04.01.76 SHEFER I A D11 *SU -603-161
Baking bread rolls using infrared heating - 53962B/29
*SHIM- 10.11.77 SHIMADAYA HONTEN KK D11 *J5 4070-447
Preparing noodle-like foodstuff - 53252B/29

*SHIM- 10.11.77 SHIMADAYA HONTEN KK D11 *J5 4070-448
Noodle-like food prepn. from rice powder and starch - 53253B/29
*SHIM- 10.11.77 SHIMADAYA HONTEN KK D11 *J5 4070-449
Prepn. of noodle-like food which retains softness - 53254B/29
*SHIM- 10.11.77 SHIMADAYA HONTEN KK D11 *J5 4070-450
Noodle-like food prepn. from rice - 53255B/29
*SHIM- 17.11.77 SHIMADA-YA HONTEN K D11 *J5 4070-452
Prepn. of noodles contg. rice powder - 53257B/29
SHIM/ 15.12.75 SHIMIZU C D13 =J5 2072-898
Miso prodn. - 53839B/29
*SHIM/ 15.12.75 SHIMIZU C D13 *J7 9017-036
Miso prodn. - 53839B/29
SHIO 05.02.76 SHIONOGI KK B04 C03 D16 =US 4160-023
Pseudomonas aeruginosa protease and elastase toxoids - 59685Y/34
SHIO 25.08.77 SHIONOGI KK B02 C02 D22 E13 =DK 7803-728
3-Thiadiazolyl-thiomethyl-oxa-de:thia-cephem derivs. - 01945B/02
*SHIO 29.12.77 SHIONOGI KK B03 C02 D22 *EP ---2-835
Amino-glycoside derivs. - 52972B/29
SICK/ 03.12.75 SICK P D16 =DS 2554-393
Batch process for continuous propagation of microorganisms - 41919Y/24
*SIMA= 27.12.76 SIBE MACHINE TRACTO D25 E16 M12 (E34) *SU -626-116
Removing corrosion, etc. from IC engine parts - 54215B/29
SIMM- 13.10.77 SIMMERING-GRAZPAUK C03 D13 =FR 2405-660
Activated feedstuffs prepn. - 31817B/17
*SIMM- 11.05.78 SIMMERING-GRAZ-PAUK D16 *BE -874-782
Preliminary extn. of hops for use in beer prodn. - 52591B/29
*SIST- 01.08.74 INST SISTEMAT COMUN D15 *RU --64-039
Biological purification of aq. effluents - B/29
*SIYA 11.11.77 SANSEI SEIYAKU KK D21 *J5 4070-439
Hair tonic for preventing dandruff etc. - 53248B/29
*SMHL 06.01.78 SIMON HARTLEY LTD D15 *GB 2011-795
Aeration of sewage sludge in closed loop channel - 53125B/29
*SMHL 10.01.78 SIMON HARTLEY LTD D15 *GB 2011-877
Effluent treatment in aeration vessel and inclined plate separator - 53138B/29
SMIK 14.04.75 SMITHKLINE CORP D16 =GB 1548-605
Micro-organism culture making device - 53942X/28
*SMIK 16.01.78 SMITH KLINE INSTRUM B04 D16 J04 *BE -873-465
Determination of creatine kinase isoenzyme(s) - 52549B/29
SMIN 16.06.75 SMITH & NEPHEW LTD A97 D22 F07 =GB 1548-865
Synthetic gauze material prepn. - 02361Y/02
SNAM 23.04.71 SNAMPROGETTI SPA D15 M11 =RU --63-778
Effluent water treatment - 73252T/46
SNAM 06.06.75 SNAMPROGETTI SPA A91 D15 F01 J01 (D16) =HU T016-721
Prepn. of fibres contg. occluded complex builders - 94693X/51
SNAM 13.10.77 SNAMPROGETTI SPA D16 J04 =FR 2405-744
Radial flow catalytic enzyme reactor for isomerisation of fructose - 29762B/16
*SNOW 19.11.77 SNOW BRAND MILK PRODUCTS B04 D16 *J5 4073-184
Fixed complex membrane prodn. - 53723B/29
SOPH- 17.10.77 SOPHARGA LAB D11 =FR 2405-656
High protein cellular diet food, e.g. wafer - 31894B/17
SOUT- 21.12.77 SOUTHLAND CORP D13 E17 (D21 E12) =EP ---2-882
Easily dispersible powdered hydrated emulsifiers - 54385B/29
*SOUT- 21.12.77 SOUTHLAND CORP D13 E17 (D21 E12) *US 4159-952
Easily dispersible powdered hydrated emulsifiers - 54385B/29
SQUI 28.07.75 SQUIBB E R & SONS INC A96 D22 =GB 1548-678
Three layer medical bandage - 63139X/33
SSIC 25.05.66 STRUTHERS SCI & INT CORP A25 B01 D21 =DS 1617-857
Polyethylene glycol wax-contg. hormone compsn. - 95557P/00
STAD 29.01.75 STANDARD OIL CO (IND) D13 (D12) =IL --48-890
Meat, poultry and fish analogues prodn. - 16794X/09
STAD 19.08.77 STANDARD OIL CO (IND) D13 =US 4160-039
Simulated french fried potatoes - 11930B/07
STAL 20.01.75 STALEY A E MFG CO A11 B07 C03 D13 (D21) =CA 1057-563
Starch contg thickening compsn - 30082X/16
STAL 24.01.77 STALEY A E MFG CO A91 D17 E13 J01 (A13) =GB 1548-543
Dense packing of sepn. columns using reversibly contracted adsorbent - 55423A/31
*STAR/ 21.04.76 STARODUBTSEVA V P D13 *SU -625-678
Hot air drying of tea leaf - 53990B/29
STAU 20.03.74 STAUFFER CHEMICAL CO D13 =CH -611-777
Protein recovery from acid solns. - 65861W/40
*STAU 12.01.78 STAUFFER CHEMICAL CO D12 *BE -873-396
Filler for minced meat prods. - 52535B/29
STEM 24.07.75 STEINMULLER L & C GMBH D15 J01 =HU T016-667
Continuous ion exchange treatment of liqs. - 88846X/48
STER 27.12.77 STERLING DRUG INC D15 =EP ---2-928
Removing unwanted slurried solids from reactor - 15832B/08
*STIC/ 01.02.72 STICKLE D T D11 *US 4160-043
Fried taco shell prodn. - 54431B/29
STON/ 15.11.77 STONE A M D22 #J5 4073-116
Sterilisation of biological materials - 84482Y/47
*STRA- 07.01.78 FA STRATE W D15 *DT 2800-556
Sewage venting assembly - 52749B/29

STRK 06.06.75 KONINK MACH STORK BV D15 =GB 1548-718
Spray unit for degassing water - 90606X/49
*STRK 30.12.77 STORK FRIESLAND BV D13 J02 *NL 7714-616
Rotary fluid atomiser preventing occlusion of air - 53858B/29
*SUGI/ 19.11.77 SUGIURA M D15 J04 M11 *J5 4071-774
Treating powdery industrial waste e.g. from metal plating - 53496
SUMB 17.05.74 SUMITOMO BAKELITE KK A94 C02 D22 F08 =FR
804
Antibacterial and fungicidal thermoplastic resin film - 79138W/48
*SUMM 19.11.77 SUMITOMO METAL MINI KK C03 D13 E32 *J5 407
Arsenic-free copper sulphate penta:hydrate prepn. - 53512B/29
*SUMO 17.11.77 SUMITOMO CHEMICAL KK D16 D17 L03 M26 *J5
333
Primary battery with aluminium (alloy) anode - 53422B/29
*SUMO 28.12.77 SUMITOMO CHEMICAL KK A88 D15 J01 *DT 2856-
Semipermeable membranes prodn. from acrylonitrile poly
52848B/29
SUMO 28.12.77 SUMITOMO CHEMICAL KK A88 D15 J01 =GB
828
Semipermeable membranes prodn. from acrylonitrile poly
52848B/29
SUMO 28.12.77 SUMITOMO CHEMICAL KK A88 D15 J01 =NL 7812
Semipermeable membranes prodn. from acrylonitrile poly
52848B/29
*SUNZ 10.11.77 SUN STAR HAMIGAKI K D21 *J5 4070-443
Dentifrice compsn. - 53251B/29
SUSO 28.01.74 SUOMEN SOKERI OY D17 E13 =HU T016-717
Crystallisation of fructose from aq. soln. - 52764W/32
SUWE- 20.10.71 SUWELACK O NACHF D11 =DS 2152-118
Mix for an instant torte base - 25791U/19
SWFR 08.07.76 SWEDEN FREEZER MFG CORP D13 =GB 1548-772
Soft ice cream machine with an accurate doser - 68891Y/39
SYNO 26.07.74 SYNTHELABO B04 D16 =CH -611-774
In-vitro culturing of plant cells - 11618X/07

TAIC 07.12.76 TAIYO KAGAKU KOGYO KK D13 E13 #CA 1057-747
Beta:lactose prodn. - 08334Y/05
*TAIT 15.12.77 TAITO KK B07 D13 E24 F06 *WF 7900-394
Red pigment for textiles, foods and medicines - 54480B/29
*TAKA- 11.11.77 TAKARAGEN HANBAI KK D13 *J5 4070-459
Vegetable-pickling mixt. - 53260B/29
TAKE 06.12.72 TAKEDA CHEMICAL IND KK B02 D16 =J7 9017-030
Cephalosporins prepn from 7-ACA derivs - 29024V/16
TAKE 16.06.73 TAKEDA CHEMICAL IND KK B02 D16 =J7 9017-031
Deacetoxycephalosporin C - 00937W/01
TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =J5 4073-1
Macrocyclic antibiotic C-15003 P-4 - 40871B/22
TAKE 18.11.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =J5 4073-1
Macrocyclic antibiotic C-15003 P-3 - 40873B/22
*TAKE 22.11.77 TAKEDA CHEMICAL IND KK B02 D16 *J5 4073-195
Tomaymycin prepn. by Nocardia species culture - 53729B/29
TAKE 30.12.77 TAKEDA CHEMICAL IND KK B04 C03 D16 (D22) =
7812-493
Antibiotic G-6302 prepd. by fermenting Pseudomonas acidop
49005B/27
*TAKE/ 24.11.77 TAKEDA K B04 D16 *J5 4073-107
Bactericides comprising protease and cycloserine or ilosone - 53701
TANA- 27.00.74 TANAKA KIKAI KK D15 =J5 0097-154
Electrolytic purificn. appts. for waste water - 53812B/29
*TANA- 27.00.74 TANAKA KIKAI KK D15 *J7 9016-659
Electrolytic purificn. appts. for waste water - 53812B/29
TATL 29.09.67 TATE & LYLE LTD D17 =DS 1792-654
R ining of sugar juice by simultaneous clarification - 28120R/17
TDCO 29.09.75 TELEDYNE INDUSTRIES D15 =CH -611-528
Domestic water supply purificn. unit with renewable cartri
07634Y/05
*TECA- 26.09.77 TECATOR AB D13 J04 *SW 7710-720
Analysis of both water-soluble and insoluble food fibre compon
54299B/29
TECD 14.10.77 TECHNICON INSTRUMEN A89 D13 E13 J04 =FR 24
201
Analytically determining uric acid esp. in food samples - 27851B/15
*TECH- 13.10.77 TECHNIP D15 *FR 2405-904
Recovering fresh water using solar energy - 53075B/29
TEEP 28.09.77 TEE PAK INC A97 D12 =J5 4070-466
Internally coated cellulose sausage casings - 13989B/07
*TEIQ 14.11.77 TEIJIN CHEMICALS KK C03 D22 E16 *J5 4070-970
Sterilisation of plant germination box - 53301B/29
*TELN- 16.11.77 TELNITE KK D15 *J5 4070-637
Water treatment with humic acid-type heavy metal ion exchan
53272B/29
TEMC- 28.02.74 TEMCA CHEM UNION GM D21 =CH -611-928
Skin cleansing compsn - 77678V/45
*TEXC 31.10.77 TEXACO INC C03 D22 E16 J01 *US 4159-996
Prepn. of alkane di:amine(s) used in slime control - 54408B/29
*TEXT- 26.09.77 STATNI VU TEXTILNI A11 D22 (A96) *SW 7710-740
Oxidised cellulose or its salts for sanitary purposes - 54301B/29
TIPE- 29.11.77 TIPE REVENT AB D11 =SW 7713-504
Convection type baking oven - 42644B/23
TODT- 15.12.75 EKATO W E K TODTENH D16 =CH -611-799
Continuous heat sterilisation of shaft seals - 43839Y/25

16.11.77 TOKYO SHIBAURA ELEC LTD D15 *J5 4070-641
colourising water obtd. during night soil treatment - 53274B/29
17.11.77 TOKYO EIZAI KENKYU A96 D22 (A23) =J5 4070-684
rgical immobilising bandage of good mouldability - 41104B/22
/ 17.11.77 TOKUDA T D16 *J5 4070-499
rmentative prodn. of seasoning - 53270B/29
S- 17.10.73 TOMS FOODS LTD D13 =CH -611-778
tato snack products mfr - 29072W/18
- 02.01.78 TOP FOODS ELBURG BV D13 =DT 2856-746
ozen potato chips prepn. - 48997B/27
- 02.01.78 TOP FOODS ELBURG BV D13 =NL 7800-047
ozen potato chips prepn. - 48997B/27
21.11.77 TOPPAN PRINTING KK D13 E13 (E34) *J5 4073-140
ompsn. for keeping food fresh - 53718B/29
21.11.77 TOPPAN PRINTING KK D13 =J5 4073-150
eserving vegetables and fruit during storage - 40838B/22
A 21.11.77 TORAY INDS INC A88 D15 J01 (A14) *J5 4071-782
emipermeable membrane e.g. for desalinating sea-water - 53503B/29
A 22.11.77 TORAY INDS INC A88 D15 J01 (A26) *J5 4072-777
emipermeable membrane for treating brine, sea water or waste water - 3667B/29
N 30.06.70 TOYO BREWING KK B03 D16 =DS 2133-181
uberactinomycine - n - 02911T/02
N 28.12.77 TOYO BREWING KK D17 (D16) =DT 2855-409
mino-sugars obtd. by fermentation of Streptomyces sp. - 51269B/28
W 18.11.77 TOYO INK MFG KK A92 D13 *J5 4073-139
reventing oily food denaturation - 53717B/29
A/ 15.12.77 TOYAMA R B07 D13 E24 F06 *WP 7900-394
ed pigment for textiles, foods and medicines - 54480B/29
J 27.01.77 TOYO SODA KK B05 D13 E16 (E14) =GB 1548-553
i:peptide amino acid addition cpds. - 57088A/32
M 21.10.71 TOYO SPINNING KK B04 D16 J04 =J7 9017-027
table enzyme compsns contg catalase and uricase - 82010X/44
M 10.01.78 TOYO BOSEKI KK D15 J01 *DT 2900-603
iquid-liquid separation device - 52906B/29
O- 21.11.77 TOYODA KIKAI KOGYO C03 D12 (C04) *J5 4071-777
oncentrator for waste fish stock - 53499B/29
W/ 11.10.77 TRUWANT G D12 *FR 2405-653
andling device for cleaving of carcasses - 53053B/29
O= 25.04.77 TASHK POLY A91 D15 *SU -626-100
oluble polyelectrolytes prepn. for use as flocculants - 54199B/29
K 22.04.76 TSUKIHOSHI KK A97 D13 #IL --49-454
reservative compsn. for agricultural prods. - 50975W/31
O 01.07.75 TULA POLY D15 *SU -626-044
agnetic processor for water softening control - 54146B/29

A/ 11.05.71 UEDA T D13 =J4 7043-249
imultaneous emulsification and sterilisation of food - 53835B/29
A/ 11.05.71 UEDA T D13 *J7 9017-012
imultaneous emulsification and sterilisation of food - 53835B/29
IN 01.09.76 UGINE KUHLMANN D25 E19 F06 =US 4159-991
Alpha:acyloxy-(N,N')-di:acyl:malonamide cpds. - 15882A/09
LI/ 30.12.77 UHLIN B E B04 D16 *DT 2759-053
Bacterial culture process - 52679B/29
DE/ 19.07.77 UNDERBERG E D16 =CH -611-933
Prepn. of bubbling, sparkling and champagne type wines - 84154A/47
GD- 12.10.77 UNGDA UNION NAT D16 *FR 2405-993
Treatment of marcs contg. alcohol - 53084B/29
IL 23.10.73 UNILEVER NV D25 E13 F06 =CH -611-664
Softening textiles with compsn contg aliphatic sultones - 30991W/19
IL 11.03.75 UNILEVER LTD D13 #CA 1057-571
Low fat water-in-oil spread - 60777W/37
IL 18.10.77 UNILEVER NV A96 D22 (A25) =J5 4070-694
Particulate absorption material with improved wettability with blood - 31891B/17
IL 18.11.77 UNILEVER NV D25 E19 (E37) =SW 7811-896
Aq. bleaching compsn., esp. hypochlorite, coloured by pigment - 38987B/21
IL 03.01.78 UNILEVER NV D13 =DT 2900-072
Smoke liquid concentrate for food flavouring - 50867B/28
IL 03.01.78 UNILEVER NV D13 =NL 7900-020
Smoke liquid concentrate for food flavouring - 50867B/28
IL 09.01.78 UNILEVER NV A97 D25 (A25) =DT 2900-232
Aq. liq. detergent compsn. free from active salt additives - 50886B/28
IL 08.01.79 UNILEVER LTD A97 D25 (A25) =GB 2011-944
Aq. liq. detergent compsn. free from active salt additives - 50886B/28
TC 17.10.77 ECODYNE CORP D15 =FR 2405-739
Clarification tank with circumferential inlet trough - 89470A/49
VO 25.11.77 UOP INC A88 D15 E36 J01 =GB 2011-804
Gas separation membrane with semipermeable thin film - 45910B/25
IL= 10.07.70 UKR OIL FATS IND D21 E24 *SU -625-712
Ash or platinum blonde shade shampoo compsn. - 54000B/29
JO 17.10.77 UPJOHN CO B04 C03 D16 H07 =FR 2405-956
Antibiotic CC-1065 - 31828B/17

*URGE- 13.08.73 SPITALUL URGENTA D22 *RU --65-877
Members and organs preservation in viable state - B/29
USRU 08.07.75 UNIROYAL LTD A97 D15 E19 J01 (A25) =CH -611-526
Absorbing weakly acidic organic cpds. from aq. solns. - 06048Y/04
UTUM- 22.12.77 UT-GES UMWELT-TECH D15 J01 =EP ---2-727
Continuous effluent filtration - 49247B/27

*VODG= 30.03.77 VODGEO WATER SUPPLY D15 *SU -626-047
Automatic oxygenating tank sludge conditions controller - 54149B/29
VTOP/ 21.11.77 VAN DEN TOP H D16 =GB 2011-773
Mushroom harvesting machine - 40908B/22

*WAKA 16.11.77 WAKAMOTO PHARM KK A96 B04 D16 (A11) *J5 4070-419
Stable urokinase powder preparation - 53236B/29
WARN 24.11.77 WARNER-LAMBERT CO D21 E33 (E12) #J5 4073-114
Stick deodorant contg. stearate and rice starch - 33420A/19
WARN 05.01.78 WARNER-LAMBERT CO D21 E33 (E12) #DT 2800-456
Stick deodorant contg. stearate and rice starch - 33420A/19
*WATE= 25.03.77 WATERS PROTECT RES D15 *SU -626-386
Surface layer sampler for liquids - 54276B/29
*WEIS- 05.01.79 WEISERT LOSER D14 *GB 2011-827
Detecting presence of metal in moving viscous strand esp. food - 53134B/29
WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 =DK 7805-428
In vitro propagation of rota-viruses - 42416B/23
WELL 01.12.77 WELLCOME FOUNDATION LTD B04 D16 =SW 7812-283
In vitro propagation of rota-viruses - 42416B/23
WERN 23.12.77 WERNER & PFLEIDERER D11 =EP ---2-702
Multideck baking oven - 49266B/27
WESS 12.10.77 WESTFALIA SEPARATOR AG D12 (D15) =FR 2405-989
Abattoir waste treatment - 14269B/08
WESS 29.11.77 WESTFALIA SEPARATOR AG D13 #SW 7713-490
Appts. for sepg. fruit pulp from seed kernel and skin - 17994B/09
WILK 12.12.73 WILKINSON SWORD LTD B05 D21 E15 (D13 D18) =CA 1057-489
Compsns with physiological cooling effect - 43016W/26
WILL- 18.10.74 WILLMES J KG D14 =CH -611-492
Sliding cover for vessels processing fruits and juices - 32247X/18
WILL/ 22.02.77 WILLEMSEN W H D13 =US 4159-878
Mixer extruder unit for shaped pieces of dough - 45906A/26
WILS- 24.05.76 WILSON FOODS CORP D12 =GB 1548-819
Untangling of intestine from an animal - 89445Y/50
WING/ 17.01.76 WINGENDER B D18 F09 =CH -611-494
Filter for pipes and cigarette-holders - 36289Y/21
WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-492
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48
WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-800
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48
WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-801
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48
WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-802
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48
WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-803
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48

*YADR/ 14.03.77 YADROV A A D13 *SU -625-681
Appts. removing nut pericarp - 53993B/29
*YAMA- 18.11.77 YAMATO RIKEN KOGYO D15 J01 *J5 4071-783
Filter for oil-contg. waste water - 53504B/29
YODA/ 18.05.76 YODA T D16 =J5 2139-795
Treating shochu to improve flavour and colour - 53810B/29
*YODA/ 18.05.76 YODA T D16 *J7 9016-596
Treating shochu to improve flavour and colour - 53810B/29

*ZAHA- 05.09.73 FAB DE ZAHAR C03 D13 *RU --66-000
Animal feedstuff concentrate - B/29
*ZENI- 07.01.78 ZENITH-MASCH GMBH D15 *DT 2800-628
Sand trap clearing system - 52761B/29
ZOEC 11.10.77 ZOECON CORP A25 D25 E16 (A97) =FR 2405-923
Amphoteric surfactants having good solubility at isoelectric point - 08033B/05

BCD
27-506 Q00+
00-387 Q01+
07-365 Q01+
00-199 Q01+
02-045 Q01+
33-301 R26+
75-052 R42+
78-061 S15+
22-462 S50+
61-711 T04+
81-316 T08+
23-320 T34+
66-427 T36+
66-428 T39+
36-230 U24+
36-540 U40+
33-386 U42+
41-769 V08+
04-195 V37+
66-428 Y30+
58-547 A48+
66-427 B29+

P AD
64-692 Q00
16-600 B29+

P ABD
707-178 Q00+
721-889 Q01
698-913 Q01
550-986 Q01
192-003 R19
907-524 T35
600-874 A28+
617-857 B29+

-Q AD
900-136 Q00+
-336-852 X04+
--58-831 X09
900-115 R36
--79-431 S17
244-441 S34
-514-293 T03
-895-112 T13
-931-851 U35
-505-328 Y13+
1900-491 B29+

0-R D
1582-468 R17
1224-990 S10
1019-568 S21
-882-694 S41
3698-951 T44
1792-654 B29

7-R BD
-749-072 R42+
7005-168 R43+
2017-560 R44+
2043-444 S17+
-512-490 S44+
--85-350 T01+
1298-277 T48+
3755-328 U37+
7002-500 X08
7003-512 Y48
-542-475 Y51
9016-520 B29+

0-R ABD
-750-292 R45
2021-696 R46
7006-854 R46
7002-865 S04
2044-785 S18
3725-400 U16
-350-265 U21
-541-579 U47
-960-660 W04
2021-696 A49
9016-922 B29

81-S DJ
-758-100 S17
2052-974 S19
7015-835 S19
7007-340 S34
2063-717 S41
-516-324 T08
1331-308 U39
3835-018 V38
-982-081 X06
7009-616 Y15
4038-163 Y31

GB 1331-308 B29

49399-S DE
DT 2101-396 S30
NL 7017-238 S31
J4 6000-168 S35
BE -761-631 S37
FR 2075-555 T03
CH -526-495 T42
CH -530-461 U04
GB 1311-261 U13
US 3754-039 U37
DS 2101-396 V30
J5 0063-149 W30
J7 7041-259 Y45
J5 2128-361 Y49
J7 8023-298 A32
J7 9017-007 B29

56900-S DE
BE -763-266 S35
DT 2008-495 S37
NL 7102-332 S37
J4 6001-662 S40
FR 2083-106 T09
ZA 7101-003 T19
GB 1312-604 U14
US 3761-573 U40
CH -541-514 U47
CA -945-345 V17
DS 2008-495 V20
J7 9016-959 B29

02911-T BD
BE -769-237 T02
NL 7109-029 T03
DT 2133-181 T08
FR 2100-846 T26
ZA 7201-276 T52
GB 1312-541 U14
J7 3038-877 U47
SU -384-233 V06
CH -558-832 W13
US 3892-732 W28
CA -981-198 X04
NL -155-049 Y49
CS 7104-818 A41
DS 2133-181 B29

11088-T BD
BE -770-805 T07
DT 2138-588 T08
J4 7005-290 T13
US 3655-876 T18
FR 2102-097 T27
GB 1291-948 T40
J7 9016-595 B29

11148-T DE
BE -770-927 T07+
J4 7007-949 T18
DT 2052-321 T19
NL 7110-656 T19
FR 2103-942 T28
ZA 7107-059 T32
DT 2117-427 T43
GB 1320-996 U25
CH -557-328 W05+
DS 2052-321 B29

16041-T ABD
US 3639-576 T10
GB 1292-412 T41
DT 2127-854 T52
FR 2143-520 U16
CA -947-650 V23
J4 8004-627 B29+
J7 9016-567 B29

31172-T DE
DT 2152-016 T20
BE -774-818 T20
J4 7009-570 T21
NL 7113-927 T21
ZA 7106-525 T29
FR 2113-514 T42
CH -533-072 U19
GB 1327-344 U34
CH -550-851 V30
US 3845-141 V45
US 3876-561 W16
CA -971-979 W33
DS 2152-016 X19
NL -150-768 X43
J7 8002-854 A08
J5 3009-329 A10
J7 9017-011 B29

33725-T DE
BE -775-152 T21
DT 2155-671 T22
J4 7010-371 T22
NL 7115-452 T22
ZA 7107-114 T32
FR 2113-740 T42
US 3769-330 U46
GB 1344-653 V04
US 3852-219 V51
SU -422-134 W27
CH -568-950 X02
CH -575-757 X25
J7 6026-430 X36
CA -996-135 X38
J5 1110-047 X46
J7 9017-010 B29

39733-T D
NL 7116-519 T25
J4 7011-973 T26
DT 2156-585 T26
J4 7011-972 T26
FR 2116-476 T44
US 3743-516 U29
CA -941-228 V08
GB 1366-130 V37
J7 9017-020 B29

40514-T DE
BE -776-390 T25
NL 7116-509 T26
J4 7011-926 T26
DT 2159-924 T27
ZA 7107-686 T36
FR 2117-541 T45
GB 1327-320 U34
CH -551-957 V36
US 3845-134 V45
CH -558-147 W09
CH -560-017 W17
US 3883-572 W21
CA -992-981 X31
J5 1079-738 X35
J7 7008-299 Y13
DS 2159-924 A07
NL -159-962 B17
J7 9017-009 B29

73252-T DM
NL 7205-539 T46+
DT 2219-095 T48
FR 2133-922 U08
BE -782-358 U15
DL --96-694 U23
CH -539-001 U40
GB 1376-998 V50+
IL --39-131 W41+
CS 7202-717 Y10+
US 4035-269 Y29+
NL -153-829 Y31+
J7 7035-945 Y40+
CA 1028-278 A14+
RU --63-778 B29+

14773-U DJ
DT 2241-450 U11
FR 2151-403 U24
US 3819-513 V27
GB 1401-813 W31
DS 2241-450 B29

16132-U BD
DT 2242-699 U12
NL 7211-870 U12
FR 2150-984 U24
J4 8033-094 V18
GB 1388-198 W13
US 3923-977 W51
CH -572-979 X15
CA -994-268 X33
J7 9017-028 B29

25791-U D
DT 2152-118 U19
DS 2152-118 B29

36735-U D
NL 7216-447 U26
BE -792-435 U27
DT 2260-421 U29
FR 2162-607 U40
J4 8066-075 U47
DL -100-879 V01
US 3822-192 V29
CA -976-866 W46
GB 1415-699 W48
J7 6020-392 X30

IL --40-951 X42
HU T013-513 Y32
RU --63-283 B29

60546-U DE
DT 2313-017 U41
NL 7302-559 U41
FR 2176-786 V01
J4 9011-850 V14
GB 1379-874 W02
CH -565-728 W38
CH -572-013 X12
CH -572-742 X15
US 3963-675 X26+
US 4031-132 Y26+
US 4068-084 A04+
J5 3109-957 A44
DS 2313-017 B29

69735-U BD
NL 7305-881 U46+
BE -798-663 U46
DT 2320-696 U48
FR 2182-136 V05+
DL -103-261 V13+
J4 9047-595 V28+
US 3847-742 V47+
GB 1377-339 V50+
ZA 7302-614 W02
OE 7409-442 W35
OE 7409-444 W35
OE 7409-441 W35+
CH -565-246 W38+
OE 7409-443 W44
CA -985-648 X14+
IL --42-050 X42+
SU -582-772 A42+
RU --64-210 A50
RU --63-439 B03
RU --63-944 B20
RU --64-183 B29+

72927-U D
J4 8058-005 U48
J7 9016-964 B29

73644-U BD
US 3773-622 U48
BE -805-491 V07
NL 7312-906 V16
DT 2348-471 V17
FR 2201-276 V27
J4 9075-786 V39
DL -107-434 V42
ZA 7305-999 V43
DS 2348-471 W36
GB 1408-732 W40
HU T011-233 X16
OE 7308-395 X20
IL --43-146 X27
CA -997-696 X42
CH -601-143 A28
J7 9003-953 B12
RU --63-492 B29
RU --63-800 B29
RU --63-801 B29
RU --63-802 B29
RU --63-803 B29

02256-V D
DT 2329-755 V02+
FR 2187-233 V11+
J4 9048-869 V28+
ZA 7303-662 V22
CH -550-551 V30
CH -557-640 W09
DS 2329-755 W34+
GB 1405-512 W37
J7 9017-018 B29+

03583-V BD
BE -802-981 V02
NL 7310-706 V08
DT 2336-401 V08
FR 2194-425 V18
ZA 7304-876 V27
DL -107-461 V42
J4 9092-215 V45
US 3893-999 W29
GB 1425-384 X08
IL --42-764 X23
CA 1006-872 Y13
NL -152-864 Y20
OE 7306-641 Y27
J7 7035-726 Y40
CH -592-112 Y48
RU --63-451 A50
CS 7305-374 B28

DS 2336-401 B29

07272-V BD
BE -804-441 V05
NL 7312-184 V12
DT 2344-586 V12
FR 2199-553 V24
J4 9042-894 V34
ZA 7306-011 V40
US 3912-591 W43
GB 1450-130 X39
CH -579-629 X42
J7 6042-199 X50
CA 1003-352 Y05
DS 2344-586 B29

11403-V BCD
BE -805-570 V07
NL 7313-052 V17
FR 2201-878 V28
DT 2348-897 V40
US 3917-819 W47
GB 1439-407 X25
CA 1016-456 Y37
IL --43-310 A09
NL -159-584 B13
DS 2348-897 B26
SU -625-623 B29

29024-V BD
BE -808-288 V16
NL 7316-670 V25
DT 2360-265 V25
FR 2212-310 V43
J4 9080-292 V51
OE 7310-140 X10
US 3945-888 X14
GB 1435-030 X20
HU T011-775 X29
CA -996-878 X40
CH -596-310 A15
J7 9017-030 B29

36521-V ADF
BE -806-869 V20
NL 7315-086 V20
DT 2354-428 V21
FR 2205-342 V36
ZA 7308-469 V43
PT --60-797 W24
GB 1418-524 W52
HU T011-390 X24
OE 7309-188 X36
IL --43-549 X42
AR -203-735 Y03
CA 1012-024 Y26
CH -591-245 Y41
SU -625-579 B29

43934-V AD
DT 2357-324 V24
FR 2206-930 V38
J4 9135-484 W09
US 3931-678 X04
FR 2285-118 X27+
GB 1446-559 X34
CH -590-054 Y34
GB 1484-276 Y35+
CA 1020-687 Y47
CA 1041-910 A47+
DS 2357-324 B29

47535-V D
DT 2360-911 V26
NL 7317-134 V27
BE -815-923 V43
J5 0029-775 W21
FR 2210-351 V41
US 3922-376 W50
BR 7404-897 X10
GB 1455-146 X46
US 4000-332 Y02
CA 1006-751 Y13
IT 1019-652 A11+
J7 9017-019 B29

55267-V CDEF
BE -812-039 V31+
NL 7403-151 V39
DT 2411-016 V39
SW 7403-061 V45
DK 7401-275 V46
SF 7400-661 V49
FR 2220-190 W01
GB 1467-420 Y11
CA 1042-789 A49
OE 7402-015 B22+
CH -611-829 B29+

58822-V AD
GB 1363-009 V33+
US 3897-791 W33+
US 3897-792 W33
J4 8026-996 B29
J7 9016-599 B29

60051-V BD
DL -106-660 V34
RU --64-555 B29

68073-V ABD
DT 2312-824 V39
BE -812-243 V40
NL 7403-317 V40
SW 7403-426 V46
DK 7401-405 V47
SF 7400-760 V49
FR 2221-462 W02
J4 9125-587 W06
ZA 7401-692 W14
PT --61-550 W14
DL -113-012 W28
GB 1405-738 W37
DL -117-229 X14
NO 7602-041 X33
OE 7402-098 X40
OE 7604-263 Y01
AR -203-743 Y03
IL --44-405 Y30
SF 7701-448 Y34
SF 7702-604 A04
CH -611-915 B29

71797-V BD
J4 9062-693 V41
J7 9017-029 B29

77678-V D
DS 2409-570 V45
OE 7501-130 X28
CH -611-928 B29

80955-V CDE
BE -814-558 V47
NL 7406-099 V48
DT 2422-763 V50
SW 7406-205 W01
DK 7402-566 W03
SF 7401-437 W06
FR 2228-431 W09
J5 0029-750 W21
ZA 7402-647 W22
US 3970-755 X31
GB 1460-279 Y01
IL --44-759 Y34
CA 1045-545 B04+
CH -611-519 B29
CH -611-611 B29

87495-V ADJ
DT 2328-281 V51
NL 7407-354 V51
FR 2231-417 W12
GB 1445-658 X33
CH -591-279 Y41
CA 1057-736 B29

00937-W BD
NL 7408-018 W01+
DT 2428-957 W03+
SW 7407-827 W07+
DK 7403-216 W10+
FR 2241-616 W22+
J5 0018-692 W27
J5 0063-193 W35
J5 0100-291 W46
US 3979-260 X38+
GB 1474-740 Y21+
CA 1016-091 Y36+
CH -594-734 A09+
HU T015-743 A50+
J7 9017-031 B29

04282-W DE
DT 2428-548 W03+
FR 2233-398 W13+
J5 0013-589 W25
J5 0070-592 W41
US 3912-587 W43
GB 1424-300 X07+
US 3969-188 X30
J7 9014-673 B27
J7 9017-033 B29

18148-W AD
J4 9052-782 W11
J7 9016-472 B29

24211-W DH
BE -822-067 W15+
DT 2454-048 W31+
FR 2250-822 W35+
J5 0076-283 W46
J5 1048-480 X24
GB 1446-979 X34+
J7 9002-266 B09
J5 0100-282 B17
J7 9006-633 B17
J7 9017-026 B29

24619-W DE
DT 2445-387 W15
NL 7412-123 W16
FR 2245-343 W27
J5 0063-147 W30
DS 2445-387 W51
US 3956-196 X21
CH -577-318 X34
GB 1457-609 X50
NL -156-440 A17
J7 9017-006 B29

29072-W D
BE -821-144 W18
NL 7413-594 W18
DT 2449-283 W19
SW 7413-061 W23
NO 7403-740 W24
FR 2247-985 W30
ZA 7406-595 X31
OE 7408-305 Y35
GB 1484-455 Y35
IT 1026-023 A49
NL -159-000 B06
CA 1050-816 B13
CH -611-778 B29

29077-W BD
BE -821-175 W18
NL 7413-642 W19
DT 2449-530 W19
NO 7403-758 W24
SW 7413-113 W24
DK 7405-439 W29
FR 2248-054 W30
J5 0082-228 W35
OE 7408-350 X24
ZA 7406-398 X31
GB 1486-557 Y38
IL --45-870 A14
CA 1050-886 B13
US 4158-054 B26
CH -611-518 B29

30612-W BD
BE -823-174 W19
DT 2458-121 W25
NL 7415-982 W26
SW 7415-405 W31
NO 7404-417 W32
SF 7403-468 W36
FR 2253-827 W39
DL -114-397 W40
US 3925-156 W52
PT --63-042 X03
ZA 7407-392 X06
HU T011-232 X16
OE 7409-810 X20
GB 1442-553 X29
CS 7408-323 X49
SU -520-926 Y18
DS 2458-121 Y32
IL --46-103 A33
CA 1038-785 A40
RU --63-720 B29

30991-W DEF
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BE -821-333 W19
NL 7413-797 W19
SW 7413-305 W24
NO 7403-789 W25
FR 2248-364 W30
DK 7405-516 W32
J5 0111-395 W44
BR 7408-741 X03
PT --62-824 X27
OE 7408-490 X28
ZA 7406-654 X31
GB 1445-606 X33
US 4071-456 A07
CA 1033-918 A29
IT 1024-657 A39
CH -611-664 B29

37983-W DE
DT 2455-084 W23
NL 7415-381 W24
SW 7414-687 W29
NO 7404-228 W30
DK 7406-141 W35
FR 2252-401 W37
PT --62-965 W45
ZA 7407-345 X31
US 3970-596 X31
GB 1471-715 Y17
IT 1023-370 A31
CA 1057-617 B29

38027-W BCD
DT 2455-884 W23
BE -822-616 W24
NL 7415-432 W24
SW 7414-706 W29
NO 7404-222 W30
DK 7406-113 W35
FR 2252-100 W37
J5 0089-392 W46
J5 0083-383 W51
J5 0083-385 W51
J5 0083-384 W51
ZA 7407-513 X13
J5 1023-286 X15
GB 1449-420 X38
HU T012-237 X43
US 4007-177 Y07
CH -611-906 B29

42361-W D
US 3888-255 W25
BE -827-923 W44
NL 7504-762 X17
SW 7504-009 X21
PT --63-616 X27
FR 2286-639 X29
DT 2516-220 X35
BR 7504-111 X42
ZA 7502-008 Y01
OE 7502-891 Y27
GB 1492-221 Y46
CA 1057-463 B29

43016-W BDE
DT 2458-562 W26+
NL 7416-222 W26+
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DL -117-804 X18+
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57465-W CD
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58522-W D
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59141-W ADE
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CA 1038-781 A40+
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67587-W D
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74700-W DE
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79138-W ACDF
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GB 1518-650 A29
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80223-W AD
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DT 2521-898 W50+
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GB 1513-671 A23+
CH -611-635 B29+

81838-W CDE
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85038-W D
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85817-W D
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06257-X BD
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J7 9017-034 B29

07910-X BDK
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CH -611-514 B29

21098-X D
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CS 7505-817 A10
DS 2536-772 A22
SU -625-624 B29

24866-X AD
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BE -833-505 X14
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24928-X ADE
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GB 1458-235 X50
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US 4105-551 A51
CA 1043-653 A51
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26723-X D
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SU -625-622 B29

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FR 2297-883 X47
GB 1517-935 A29
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30361-X DE
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BE -834-312 X17
NL 7511-812 X18
SW 7510-944 X22
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GB 1473-056 Y19
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32247-X D
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35648-X ADF
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38393-X BD
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SW 7511-907 X25
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SF 7502-964 X31+
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SF 7802-827 B04+
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39280-X CD
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41056-X D
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J7 9016-575 B29

41791-X DJ
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GB 1548-767 B29+

46441-X D
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47794-X DE
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48211-X D
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52092-X DE
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DT 2609-019 Y37+
GB 1525-178 A38+
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CH -609-246 B12+
CA 1057-654 B29+

63139-X AD
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67302-X ABD
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J5 2051-018 Y22+
FR 2327-798 Y29
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GB 1533-464 A47+
GB 1532-803 A47+
CA 1057-684 B29

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GB 1519-093 A30+
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69013-X D
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CA 1057-564 B29

72165-X BD
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CH -611-931 B29

72501-X D
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FR 2303-081 Y02
FR 2337-201 Y41+
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GB 1498-563 A03+
CH -611-930 B29+

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81385-X AD
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81626-X D
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82010-X BDJ
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J7 9017-027 B29+

83392-X ADE
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057-697 B29

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631-443 Y10
025-789 Y14
609-236 Y14
602-877 Y15
603-779 Y19
321-491 Y21
602-387 Y21
603-927 Y26
-65-501 Y29
148-808 B17
605-337 B26
548-590 B29

-Y D
537-303 Y01
507-504 Y07
031-209 Y26+
366-018 A26
055-398 B24
537-303 B29

2-Y DE
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2627-112 Y02
2000-235 Y07
2314-912 Y14
4070-374 A06
1548-595 B29

-Y ABD
2625-257 Y02
-601-388 A33
4101-380 A40
--47-468 B29

1-Y ADF
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7603-530 Y26
4135-021 B04
1548-865 B29

8-Y ADEF
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7602-388 Y09
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7603-125 Y13
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7604-493 Y33
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-598-292 A19
1512-318 A22
-131-476 A32
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4107-056 B08
4159-978 B29

6-Y CD
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2638-292 Y12+
2323-340 Y24+
7605-887 Y35+
1548-703 B29+

48-Y ADEJ
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-611-526 B29

34-Y D
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7610-600 Y15
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2325-605 Y26
7606-477 Y28
-611-528 B29

08334-Y DE
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US 4083-733 A22+
NL 7613-257 A24+
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SW 7613-058 A27+
DK 7605-257 A30+
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12731-Y D
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15095-Y D
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15843-Y BDE
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16907-Y D
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CA 1057-565 B29+

18490-Y BD
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US 4054-646 Y43+
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23641-Y D
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23870-Y AD
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25256-Y BD
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DT 2646-001 Y17
J5 2047-991 Y21
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27019-Y BCD
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NL 7700-319 A31+
CH -601-479 A33+
DK 7605-852 A36+
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CD
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ADJ
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DJ
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CD
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ADJ
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12-340 B29+
1-828 B29+

BCDJ
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11-800 B29

DJ
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CDEF
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ADE
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591B D16
597B D15E31K05M25
2610B D18P1

873A D17+R2
B D15

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9938B A60C02D22E13+P3
3878B D15E36J04Q7
3536B C01D22

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4645X A96D22F07P2+P7
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8954A D22P2
8421Y D22P3
7998A D22P3
2361W D22P3+P7
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2256A D12
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16907Y D13
59622X D13
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63730X D13+P2
24866X A25D22+P3
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72547X A96D21F07P2
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26 MAR 1980

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17 SEPTEMBER 79
54494B - 56275B

ABSTRACTS

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- **II - PATENTEE**
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Section D:

FOOD
DETERGENTS

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	17 JUL - 23 JUL 79	873,517 - 873,658
-Non Delayed	16 JUL 79	874,883 - 875,072
BRAZIL	10 JUL 79	7,708,347 - 7,902,169
DENMARK	2 JUL 79	7,705,418 - 7,805,574
E. GERMANY	2 MAY 79 + 9 MAY 79	135,318 - 135,557
W. GERMANY		
-DAS	19 JUL 79	1,565,625 - 2,904,883
-OLS	19 JUL 79	2,345,659 - 2,901,921
EUROPE	25 JUL 79	3,016 - 3,208
FRANCE*	18 MAY 79 (BOPI 22 JUN 79)	2,406,380 - 2,406,942
UNITED KINGDOM	25 JUL 79	1,548,991 - 1,549,340 2,012,151 - 2,012,530
JAPAN		
-Unexamined	—	47,031,978 - 52,082,650
	13 JUN - 19 JUN 79	54,073,601 - 54,076,565
-Examined	28 JUN - 4 JUL 79	79,017,161 - 79,018,080
NETHERLANDS	9 JUL - 15 JUL 79	7,800,121 - 7,900,230
NORWAY	2 JUL 79	7,700,360 - 7,901,590
RES. DISCLOSURE	JULY 79	183,001 - 183,073
RUMANIA	DECEMBER 78	64,257 - 69,691
FINLAND	29 JUN 79	7,702,529 - 7,900,726
SOVIET UNION	—	626,694 - 627,975
SWEDEN	9 JUL 79	7,713,743 - 7,904,782
UNITED STATES		
-Reissues	10 JUL 79	Re30,042
-Patents	10 JUL 79	4,160,292 - 4,161,041

*Printed patents actually published late June-early July, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

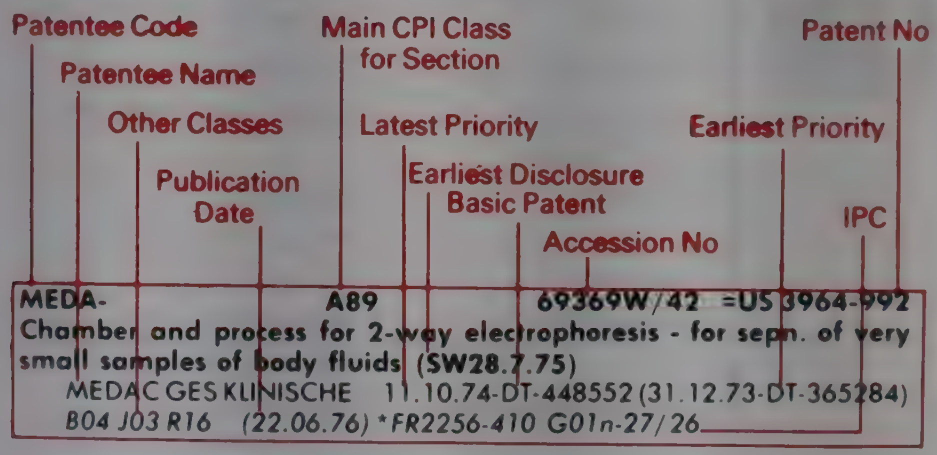
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
IPC
Patent No

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11 : BAKING

' ★ D11 54544B/30 ★BE -875-019
ıring layered paste for french pastry etc. - by incorporating
fat particles and repeatedly rolling and stacking layers
JLTHEEL J M 13.04.78-FR-011441
(16.07.79) A21c A21d

process consists in mixing a paste of flour, water, nd salt and forming a dough comprising a plurality of rimposed paste layers with interlayers of fat. The n the form of solid particles is incorporated in the h. The paste is alternately rolled to a sheet form. sheets are then stacked to several thicknesses to lead gressively to a dough with alternate layers of fat and e.

he paste is used to make french pastry and similar tries. The above enables a homogeneous regular struc- on cooking. It avoids the large amt. of layering pre- isly required and the waiting time required between ering cycles. 22. 3. 79 as 875019 (10pp597)

W- ★ D11 54554B/30 ★BE -875-069
omatic finishing of treacle-filled waffles - by transferring and
ssing newly sliced top on already filled bottom
/ERWEIJ A BV 04.04.78-NL-003564
(16.07.79) A21c

ffles with fillings of various kinds and similar products produced from a pre-baked article. The under half of waffle is dosed with the filling and an upper half of a ffle, the bottom of which has been treated already with filling, in a previous operation, is laid on it. The e-baked article from which a start is made, is slit by cutter mechanism into an under half and an over half. e over half of a waffle is laid onto an under half which s been dosed with filling two operational steps earlier.

A large output can be achieved of an improved waffle. e syrup is distributed uniformly and the crumbling away the edges of the waffle is prevented. The appearance is nproved by the show of syrup round the circumference of e product. 23. 3. 79 as 875069 (F1) (15pp1014)

COS/ ★ D11 B/30 ★BR 7708-389
ixer for e.g.dough
DA COSTA O P 15.12.77-BR-008389
(10.07.79) A21c-01/06

SP/ D11 41767Y/24 =GB 1549-145
ontinuous mfr. and packing of rusks - with realigning and lifting
evices on conveyor belt system
LESPEAU B A 12.02.76-FR-003896
*+Q31 Q35 (25.07.79) *BE-851-251 +B65g-47/52*

ppts. for continuous manufacture and packaging of rusks ncludes a conveyor passing rusks through an oven and a usk repositioner at the oven exit supplying a second con- eyor. A batcher forms the rusks into groups, and sup- lies a third conveyor perpendicular to the second. A ocker rotates rusks to position them for packaging.

The batcher pref. includes a forming conveyor at a ower level than the first and second conveyors, and the epositioner includes a comb and an eccentric subjected o alternating movement by a rod, with a retainer holding rusks in a raised position on a receiving sheet. 14.2.77 as 006057 (10pp1358).

KIKU/ D11 18220Y/11 =GB 1549-252
Bread mfr. without antimould agent esp. sodium or calcium
propionate - using wheat and/or rye flour with rice, malt or fruit
vinegar
KIKUHARA I 04.11.75-JA-132284
*(25.07.79) *BE-847-985 A21d-02/08 +C12j-01*

Bread is made from cereal flour, in which the flour contains ≥1 edible vinegar which is rice vinegar, malt vinegar or fruit vinegar in amt. 180-450ml. per 25 kg. of the flour.

Pref. the rice vinegar used is conc. rice vinegar and/o unpolished rice vinegar. The fruit vinegar is cider vinegar, orange vinegar or grape vinegar. Prepn. is by adding the edible vinegar to a cereal flour dough in amt. 260-300 ml. per 25 kg. of flour, the dough then being allowed to rise and baked.

Bread compsn. has a good storage life, as well as improved cellular structure and flavour. Flavour is improved without making the bread taste sour, by virtue of the free amino acids and other nutrients present in the vinegar. 4. 11. 76 as 046012 (5pp931).

TEHN- ★ D11 B/30 ★RU --65-823
Continuous cooking in mechanical oven - employs rotary drum to
produce large thin cooked products
TEHNOFRIG INTR 31.05.73-RU-074971
(30.12.78) A21b-05/02

TEHN- ★ D11 B/30 ★RU --66-841
Rolling and baking machine - for dough products less than 1mm
thick
TEHNOFRIG INTR 14.11.73-RU-076634
*(30.12.78) A21c-07/**

JARV/ ★ D11 B/30 ★SF 7703-053
Appts. for turning edge of sheet of dough
JARVENKYLA J 14.10.77-SF-003053
(29.06.79) A21c

HUAN/ ★ D11 56151B/30 ★US 4160-634
Portable, low power, automatic dumpling-making machine -
comprises dough sheet transmission, stuffing control and feed and
dumpling forming devices
HUANG T H 19.08.77-US-826210
(10.07.79) A21c-09/06

An automatic dumpling mating machine comprises a dough sheet transmission mechanism and a flour container for applying flour to the dough sheets. Stuffing control and feeding devices feed a fixed amt. of stuffing into each doug sheet and a lifting device lifts the central part of each shee to form a dent for receiving a stuffing.

Dumpling forming devices are mounted on the periphera surfaces of two polygon-shaped rotating wheels for folding up the dough sheets after stuffings have been fed in to form a dumpling. A push rod discharges the finished dum -lings from the forming devices into a collector.

Only about 1 hp. is required to operate the machine. Dumplings are made in a sanitary and rapid manner. The machine is compact and is potable. 19.8.77 as 826210 (11p (11pp1044).

PENN ★ D11 56260B/30 ★US 4160-848
Additive for inhibiting staleness in baked goods - comprises glycerol
mono:ester and fatty acid, its sodium, magnesium salts or
pentaerythritol ester
PENNWALT CORP 18.04.77-US-788193
A97 E17 (10.07.79) A21d-02/16

An additive compsn. for retarding staling in baked goods contains (a) a glycerol ester of a 10-24C fatty acid, contg. ≥10% monoester, and (b) 0.25-1 pts. per part glycerol ester, of a 14-20C satd. fatty acid, its sodium or magnesium salts, and/or its pentaerythritol monoester. Pref. (a) contains 30-50 wt.% of the condensation product of the glycerol ester with 10-95 wt.% ethylene oxide. The fatty acid in (b) is pref. stearic acid.

The combination is more effective than known additives. 18.4.77 as 788193 (6pp955).

D12: MEAT; FISH PROCESSING

DANE- ★ D12 B/30 ★DK 7705-432
Bacon cutting system
DANEPAK LTD 07.12.77-DK-005432
P62 (02.07.79) B26d

SCMA D12 69115W/42 =DS 2416-650
Raw fish steamed and dried in open cans - using continuous belt with transverse blades to engage and convey cans
SCHMALBACH-LUBECA 05.04.74-DT-416650
*+Q35 (19.07.79) *DT2416-650 A23l-03/04 +B65g-49*

In a plant to remove the cell water from raw fish or fish products in open tins prior to filling with oil or sauce and closing, an endless chain conveyor is used which has in the central part of its lateral support rails a U-shaped dip. Transverse charging and discharging conveyors transport the open tins to and from the flight trays on the bottom strand chain.

Guide plates hold them during the travel on the bottom strand. The cell water is removed as the tins pass through a steam heating and drying zone. In the top strand, the tins are inverted so that the cell water can drain off through the perforated trays.

This makes the following sterilisation stage safe from contamination by cell water. 5.4.74 as 416650(7pp39)

TEEP D12 50970W/31 =DS 2510-800
Sausage skins of collagen coated with edible powder - which is pref. a vinylic or olefinic polymer, esp. polyethylene, to improve slip and roll qualities
TEE PAK INC 12.03.74-US-450526
*A97 (19.07.79) *BE-826-604 A22c-13*

Edible collagen sausage skins with a powder film on the external surface have improved sheen and rolling properties The powder film comprises a polyolefin, (spherules of dia 0.5-35 µm, 0.15-15 mg/g sausage skin); pref. polyethylene, (2-15 µm diam., 0.75-7.5 mg/g), is used opt. with a small content of finely divided silica (0.1-2 wt%).
12.3.75 as 510800(3pp47)

HUCK- ★ D12 54732B/30 ★DT 2801-545
Sausage sheath of rustic appearance mfr. - using knitted mesh surrounding tubular sausage skin
HUCKFELDT & THORLIC 14.01.78-DT-801545
(19.07.79) A22c-13

A continuous sheath for sausages consists of a tubular skin to which a knitted meshed net is applied on the outside. The net consists of spiral threads which are joined to each other by three to six axial loops. After drying in the inflated state the sheath is ready for packing.

When filled with sausage meat, thissheath has a rustic appearance and has a greater strength than the skin by itself. 14.1.78 as 801545 (9pp39)

NMHB ★ D12 B/30 ★NO 7704-192
Fish filleting machine
NORDISCH MASCH R BAADER 07.12.77-NO-004192
(02.07.79) A22c

MOMD ★ D12 55711B/30 ★SU -626-745
Tubular bone cutting equipment - has stationary and moving knives, the latter moving in a circular trajectory
MOSCOW MEAT DAIRY INST 29.03.77-SU-469066
(11.09.78) A22b-05

Device for sepg. epiphyses from tubular bones includes a stand and stationary and moving knives. Productivity and reliability are improved by positioning the driven knife so that it is capable of circular motion. Both knives are mounted in a frame and their cutting edges have the shape of a straight line and are arranged at an angle to one another equal to 30-70 °C. The bone is fastened into a gripping attachment in such a way that the point at which the epiphysis is to be removed fits into a V-shaped groove, formed by the cutting edges of the stationary knife. The electric motor is started up and the flywheel on the shaft begins to turn.

Ivashov V.I., Yurkov S.G., Kulishev B.V et al. Bu
5.10.78 29.3.77 as 469066 (2pp29)

LERE= ★ D12 55712B/30 ★SU -
Sausage meat extruder for filling skins - has combined feed
delivery screws which rotate and move to/and/fro to give r
dose
LENGD REFRIG IND 25.04.77-SU-481997
(11.09.78) A22c-11/08

Extruder for filling sausage skins with meat, compr
loading hopper, body contg. rotating screws, each c
has a supply and a pressure section, attachment wit
and drive. The accuracy of the proportionation and
ity of filling are improved by positioning of the scre
that they can rotate and move backwards and forwar
the same time. The shaft of the delivery part of ea
screw is inserted into the shaft of the feeding part a
connected to the drive (motor) by means of a rod.

Gorban M.V., Gruzdev I.E., Kornilev I.B. et al. E
37/5.10.78 25.4.77 as 481997 (3pp29)

LEME= ★ D12 55713B/30 ★SU -
Meat cutter with disc knives - has edge attachment to draw i
and cut it longitudinally and drum with cutters to cu
transversely
LENGD MEAT IND PROD 08.04.77-SU-475327
P62 (11.09.78) A22c-17 B26d-04/24

Meat cutter comprises a unit which contains disc kn
installed in pairs for the longitudinal cuts, attachme
the transverse cuts, with loading and withdrawal con
ors, and a drive.

The cutting conditions are improved and construc
is simplified by making the transverse cutting attach
as a flat knife, plus a drum which rotates and has cu
distributed around its side surfaces at an angle to th
drum's axis. The disc knives of each pair have a ga
between them and are sharpened on one side only. G
pers for the meat are distributed around the circumf
ce.

Nevskii M.A., Gorban M.V., Bul. 37/5.10.78 8.4.
as 475327 (2pp29)

MOMD ★ D12 55714B/30 ★SU -6
Meat mincer for sausage meat prodn. - has feeder with off/
rotor, having slots and blades, and cutting elements on shaft
mincing chamber
MOSCOW MEAT DAIRY INST 13.04.77-SU-477277
(11.09.78) A22c-17

The mixer includes a loading hopper, feeder inside w
a rotor is placed off-centre and has slots and blades
the mincing chamber, where the shaft is fitted with cu
ing elements.

Productivity is increased by fitting a disc knife for
cutting off the meat, and a conical flow distributor fo
minced meat, positioned coaxially at the point where
loading hopper and the feeder come into contact, as w
as in the mincing chamber, in front of the cutting ele
The loading hopper is placed above the part of the rot
with greatest eccentricity so that its axis is parallel t
the axis of the rotor, and the cutting elements shaft is
made to move telescopically.

Ivashov V.I., Yurkov S.G., Bubyrenko V.K. et al. B
37/5.10.78 13.4.77 as 477277 (3pp29)

TEKH= ★ D12 55715B/30 ★SU -62
Fish in particular sardine(s), loader - has orienting plates and
with cells in, to orient fish head first and spine alo
predetermined line
TEKHRYBPROM EXP PRD 06.04.77-SU-476366
(11.09.78) A22c-25/08

Device for loading fish e.g. sardines, into a processi
machine, which uses cassettes, comprises an attachm
to orient the fish head first, and a drive to rotate a dr
contg. cells. Orientation of the fish along the spine, a
reliability of piecemeal sepn. are guaranteed by provi

f the drum. Templates are mounted concentrically
ve to the axis of the drum and these guarantee totat-
the plated and the rocking arms.
kii G.P., Zatsepilin A.T., Koval L.P. et al. Bul.
.0.78 6.4.77 as 476366 (4pp29)

★ D12 55720B/30 ★SU-626-754
of tinned food, e.g. minced meat - includes forming thin
y centrifugal force and thermally treating it with live steam,
in baby-food mfr.
SCOW MEAT DAIRY INST 21.04.77-SU-479220
3) *(11.09.78) A23l-01 A23l-03*
or milk prods. are prepd. for consumption esp. by
ren, by a thermal treatment in a thin layer formed by
ifugal force.
is method is improved by subjecting the centrifugally
ed meat layer to the action of satd. steam at 110-120°
he treatment is carried out in a chamber where a rot
g conical disc throws the meat onto the chamber wall
ing a thin layer. This layer is heated by direct con-
with satd. steam, and flows down the chamber wall,
subsequently combined with the water condensate and
roth formed by condensation of volatilised meat com-
nts. Thus the nutritive value of the prod. is enhanced.
nikov A.M., Bolshakov A.S., Krokha Yu.A. et al.
37/5.10.78 21.4.77 as 479220 (2pp70)

= ★ D12 55996B/30 ★SU-627-312
atch continuous sorter - has flaps actuated by moving fish in
and contg. sensors to generate signals proportional to fish
ness
R EAST POLY 21.07.76-SU-389691
1 *(14.08.78) A22c-25/14 G01b-07/02*
device for measuring the linear dimensions of fish
in trays, as included in automatic lines for the prim-
treatment and sorting of fish, and for the morpholog-
studies of catches, etc. The trays are also moving
constant rate. The measuring elements are made
two spring-loaded flaps, position-sensor for the
s, unit for converting the signals from the sensor and
ndication unit connected to the conversion unit.
he reliability is increased by positioning the sensor
fixed position relative to the flap and along its axis.
signal conversion unit comprises a pulse shaper conn-
d to the sensor, with a trigger connected to the shaper
ultivibrator connected to the shaper, and a conjunctor
ected to the trigger and the multivibrator, and to the
cation unit.
chenko V.V., Bul. 37/5.10.78 21.7.76 as 389691 (3pp

T= ★ D12 56021B/30 ★SU-627-804
lity sausage meat prodn. - includes addn. of comminuted bulls
es using specified frequency vibration and maturation
MEAT IND RES INST 14.03.77-SU-463179
(22.08.78) A22c-11
sages are produced by comminuting the starting mat-
als, introducing salt and opt. other additives, matur-
the mixt., forming sausages and subjecting them to
ermal treatment.
The quality of the prods., can be improved by introduc-
into the mixt., together with salt and opt. other addit-
s, 0.1-5% of comminuted testicles of slaughtered bulls
ef. in the form of a 1:1 aq. emulsion, pref. in the pre-
rved state. After the introduction of the testicles, the
xt. can be subjected to 12-100 Hz mechanical vibrat-
s. The maturing stage lasts 2-12 h.
kolnikov L.I., Sevastyanov B.A , Shilov G.G. et al
1. 38/15.10.78 14.3.77 as 463179 (2pp70)

ND= ★ D12 56022B/30 ★SU-627-805
usage and other meat prods. cooling - by deposition of aq. mist
n using specified frequency acoustic vibrations for fast low cost
oling
VENDING EQUIP RES 06.10.76-SU-410648
P54 (22.08.78) B23b-04/06
e cooling by deposition on their surface of water drop-
s from a mist is accelerated and water consumption
reduced by subjecting the mist to acoustic vibrations
ef. 0.5-40 kHz. The power is pref. 96-182W.

The droplet size is pref. 0.2-30 u mostly about 10 u. The mixt. is introduced into the cooling chamber continuously in a turbulent manner.

Kopylov Yu.A., Lavrov V.V., Bocharov O.D. et al. Bul. 38/15.10.78 6.10.76 as 410648 (2pp70)

KHGE= ★ D12 56026B/30 ★SU-627-809

Fried food e.g. meat or fish prodn. - includes spraying with liquid fat and exposing to hot air with controlled introduction of steam

KHARK GENE SUPPLY 13.12.76-SU-429318
*(21.08.78) A23l-01/**

The process is intensified by periodically introducing steam, whilst hot air is circulated continuously.

By this method, the frying time is shortened, and the quality of the prod. is improved.

In the case of meat, the frying is carried out for 40-65 mins.; the air temp. is 230-250°C, steam (temp. 130-140°C) is introduced four or five times in 3-5 min. spells. In the case of fish, the frying is carried out for 5-7 mins.; the air temp. is 230-250°C; steam (temp. 130-140°C) is introduced two or three times in 0.5-1 min spells.

Belyev M.I., and Titov A.M., Bul. 38/15.10.78 13.12.76 as 429318 (2pp70)

UPOU= ★ D12 56027B/30 ★SU-627-810

Prodn. of powdered meat processing waste for use in animal feed - includes comminuting, heating, dehydrating and removing fat with application of mechanical compression and exposure to reduced pressure

UKR-POULTRY RES INS (UCHE=) 14.03.77-SU-463183
(21.08.78) A23k-01/10 A23l-01/31

The process is intensified (2-3 times) and the quality of the prod. is improved by carrying out the dehydration and fat removalsimultaneously with the comminution and the thermal treatment, whilst successively applying cycles of mechanical compression and exposure to reduced press.

The mechanical compression is carried out in 10-50 sec spells, under a press. of 2-10 MPa, at 380-450°K. The exposure to reduced press. 50-85 kPa, at 340-370°K. lasts each time 5-15 sec.

Ivko I.I., Evdokimenko I.K., Melnik V.A. et al. Bul. 38/15.10.78 14.3.77 as 463183 (2pp70)

MOMD ★ D12 56028B/30 ★SU-627-811

Prodn. of shaped cooked meat prods. - includes salting meat, maturing, heating, compressing and two/stage cooling in compressed form

MOSCOW MEAT DAIRY INST 11.04.77-SU-475345
(21.08.78) A23l-01/31

The process is rendered more efficient and the quality of the prod. is improved by carrying out the cooling in the shaped form in two shapes; first at the temp. of the surrounding medium between -5 and -7°C for 0.25-0.5 h.; and then at 2-4°C for 4-5.5 hr. The press. during the cooling is maintained at 0.25-0.5 kg/cm^3; when the temp. in the bulk of the prod. drops to 40-50°C, the press. is reduced to 0.05-0.01 kg/cm^2.

Bolshakov A.S., Zabashta A.G., and Boreskov V.G. Bul. 38/15.10.78 11.4.77 as 475345 (2pp70)

UNIC ★ D12 56110B/30 ★US 4160-305

Inserting sizing disc into casing esp. for viscous meat emulsion - with appts. comprising a disc store and dispenser and a disc rotating mechanism

UNION CARBIDE CORP 09.03.78-US-884961
(10.07.79) A22c-07 A22c-11

Appts. for inserting a sizing disc into an unstirred end of a stirred tubular casing comprises a disc store and a disc dispenser positioned on a frame. A device is adapted to detachably secure an unstirred end portion of a stirred tubular casing to the dispenser. A mechanism advances the sizing disc to the dispenser and a rotating mechanism rotates the disc in the unstirred portion in a direction perpendicular to thelongitudinal axis of the casing.

Used implanting a sizing disc into a casing which receives viscous meat emulsions. The appts. is easy to operate and includes conventional casing gathering, clip applying and out-off devices. The sizing disc has a larger periphery than the unstretched inner periphery of the unstirred end. 9.3.78 as 884961 (12pp1044).

BEST- ★ D12 56113B/30 ★US 4160-320
Hand held band saw - with easily dismantled casing and easily adjustable band guide and particularly useful for cutting up meat carcasses
BEST & DONOVAN 27.02.78-US-881734 (06.04.77-US-785037)
P63 (10.07.79) B27b-13/02

The saw includes first and second housings containing band drive and idler rollers between which the band is slung. Each housing contains a roller band-guiding device, and the housing containing the drive roller also carries a slatted further land guide. The idler roller is mounted in its housing so as to be tiltably and longitudinally adjustable relative to the housing and thus to the drive roller.

A cross bar extends between the housings and the non cutting run of the band runs in a recess in the cross-bar, which recess is closed by a plate held in place when doors on each housing, which doors give easy access to the housing interior, are closed.

The saw can easily be opened or dismantled for cleaning or band replacement and has extremely accurate guiding of the band. 27.2.78 as 881734 (14pp525).

DIBO/ ★ D12 56146B/30 ★US 4160-604
Rapid salad mixer and dicer - with meshing horizontal rods on vessel and rotary shaft through sealable lid
DIBONA A 05.05.78-US-903198
(10.07.79) B01f-07/20

A rapid salad mixer and dicer comprises an open-top vessel with rods extending inwardly at various heights and a sealable lid through which a shaft is mounted, carrying a top cranking handle. The lid has a peripheral fl fitting wedgingly on the vessel, and a flange slot to with a male member on the vessel, so that the lid against rotation.

The shaft carries second rods at different heigh the first and intermeshing with them. The second are pref. mutually offset and the lid has a handle f ing the shaft is turned. The vessel is pref. cylind 5.5.78 as 903198 (4pp1358).

ORTH/ ★ D12 56259B/30 ★US
Improving freeze-thaw stability of fish bait - by immers glycol soln. and reducing then raising pressure
ORTH G O 10.03.77-US-776139
(10.07.79) A23b-04

Fish bait with improved freeze thaw stability is pr immersing the bait in an aq. soln. contg. 20-60 % thylene glycol, triethylene glycol, tetraethylene gly propylene glycol, dipropylene glycol or glycerine a a vacuum up to 28 ins Hg for 3-30 mins then raisin pressure to 40-100 psi for 1-10 mins, and finally r ing the fish from the soln. for packaging and freezi

The bait retains a firm texture after thawing. T cess does not use highly toxic materials, and does part an unpleasant odour as does formaldehyde trea 10.3.77 as 776139 (4pp955).

See Also

D16 DS 2659896

D13: OTHER FOODSTUFFS

UGIN ★ D13 54510B/30 ★BE -873-622
Animal feed blocks and agglomerates - formed by combining food with urea-formaldehyde binder and polymerisation catalyst
UGINE KUHLMANN 27.01.78-FR-002289
A97 C03 (A21) (23.07.79) A23k

Prepn. of animal feeds in the form of blocks or agglomerates includes addn. to the mixt. of prods. forming the food of a urea-formaldehyde binder and a polymerisation catalyst.

Used esp. for the mfr. of animal feedstuffs, for cattle and sheep, which may be agglomerates 2-100 mm or blocks (e.g. licking blocks) of 100-1000 mm. Process allows prepn. of blocks and agglomerates without necessity to compress or heat the food prods. The prod. is readily moulded to desired shape, is not affected by atmospheric humidity but is readily soluble in animal saliva. 22.1.79 as 873622 (9pp395)

KITT/ ★ D13 54556B/30 ★DL -135-320
Food contg. protein hydrolysates with improved flavour - using invert sugar soln. as carbohydrate source
KITTEL H O 10.03.75-DL-184826
(02.05.79) A23j-03

The taste of foods contg. protein hydrolysates is improved by using as carbohydrate component a mixt. (A) of glucose and fructose obtd. by inversion of cane sugar. (A) has a residual sucrose content of about 5% and water content 30-20%.

By using (A) in place of a mixt. of equal parts glucose and fructose, the unpleasant smell and taste associated with amino acids and their decomposition prods. are eliminated. (A) are cheaper than the carbohydrate sources previously used. 10.3.75 as 184826 (4pp1251)

DEAK ★ D13 54557B/30 ★DL -135-321
Protein reaction prod. with poly:carbonyl cpd. - giving gels useful in human nutrition
AKAD WISSENSCHAFT DDR 23.06.76-DL-193523
A97 (02.05.79) A23j-03

Prodn. of reaction prods. (A) of proteins (B) with carbonyl saccharides and other low mol. wt. nutrients, in aq of pH 1.5-14 (5-8.5) with 0.5-60 (0.5-40) mole time mol.wt. polycarbonyl cpd. (C), so that 5-95% of the tein amine gps. are blocked and a protein gel forms

Pref. conditions, depending on the properties of required, are protein concn. 1-30 wt.% and 0-120(0 Pref. (B) are casein; seed globulins and yeast cell i The prod. can be treated with acids or bases to adj and/or modified by adding particular ions, esp. Na, Ca, Cl, SO_4 and H_2PO_4 ions.

The gels are useful in human nutrition and as tec auxiliaries. (C) are effective crosslinking agents un mild conditions and over a wide pH range. The rheo properties of the gel are easily controlled. 23.6.76 193523(11pp1251)

BOCK/ ★ D13 54558B/30 ★DL -
Dry potato prod. mfr. without preliminary peeling - by w slicing, digestion with enzymes, removal of peel then drying
BOCK W 09.05.74-DL-178560
(D16) (02.05.79) A23l-01/21

Prepn. of dry prods. from potatoes without previous chanical and/or chemical peeling comprises first co letely removing attached soil by intensive water was then cutting carefully selected potatoes into coarse or cubes.

These (raw or blanched) are then liquified with st to a cell suspension or hydrolysate of high dry matte tent by treating with microbial cell-separating pecti and hemi-cellullytic enzymes, opt. together with cel ytic enzymes. This stage is carried out in an aq. m designed to optimise enzyme activity but inhibit oxid liq. prod. is then mechanically freed of pieces of re peel and dried by removal of water and/or reaction

Loss of potato material associated with chemical ing (hot aq. NaOH) is avoided. The prods. do not sw as much as those prepd. without enzyme treatment be used as potato starch in many applications, altho they are superior nutritionally. 9.5.74 as 178560(9p

★ D13 54614B/30 ★DL -135-476
c removal from phosphoric acid - by treating with sulphide,
g and stripping with non-oxidising gas
BIER D 28.10.77-DL-201741
E36 (09.05.79) C01b-25/18

oval of As from H_3PO_4 is effected by (a) treating with
r a Na_2S soln. to ppte. As_2S_3; (b) filtering off the
to leave 10-95% (pref. 70-90%) H_3PO_4 with an H_2S
nt of $\leq$ 100 mg/l and/or a $Na_2S_2O_3$ content of $\leq$ 200
; and (c) stripping this at 35-90°C (pref. 50-70°C)
a nonoxidising gas at $\geq$15°C to remove the H_2S and/
$a_2S_2O_3$. The nonoxidising gas is pref. N_2 or an inert

tripping with a nonoxidising gas avoids formation of
the H_3PO_4 (cf. stripping with air). The purified H_3PO_4
ear and colourless and is thus suitable or use in the
industry. 28.10.77 as 201741(8pp367)

D13 07006H/00 =DS 1904-239
ment of organic waste with thermophilic
ENERAL ELECTRIC CO 31.01.68-US-702119
*03 (19.07.79) *NL6901-528 +A23k-01*

ess for the prodn. of animal fodder with a high pro-
content or high level of extractable protein, comprises
ng an aq. suspension of biologically degradable organ-
aste matter with a culture medium of a suitable thermo-
c aerobic microorganism capable of utilising cellulose;
wed by fermentation under aerobic conditions (such
$\geq$ 0.3 mg dissolved $0_2/dm^3$ is present), at pH 5.5-8.5
temps. 45-80°. The cell material is sepd. and proce-
d to obtain fodder protein. 29.1.69 as 904239(6pp47)

D13 58645S/36 =DS 2110-575
le water-in-oil emulsions prepn
NILEVER NV 09.03.70-LU-060482
*(19.07.79) *BE-763-812 A23d-03/02*

rgarine with a low calorie content is produced by mix-
30 to 60% of an emulsifier-containing liquid fatty phase
a dilation number at 10°C of at least 100 $mm^3/25g$ and
temperature of at least 28°C with 40 to 70% of an
eous phase with a temperature of max. 8°C. The pro-
ed partly crystallized mixture is emulsified without
ling, shaped and packed.
This is a technically simple and economic method of
ducing low-calorie margarine with a good spreadability.
.71 as 110575(9pp39)

IL D13 01964U/02 =DS 2350-638
ated peanuts - by coating nuts with mixt of flour, prethickened
ur and water and frying in oil
UNILEVER NV 11.10.72-NL-013725
*(19.07.79) *NL7213-725 A23l-01/17*

epn. of snack products comprises introduction of an
ible carrier (esp. crushed ground nuts) into a rotatary
ommel, followed by powdered starch materials (contg.
-40 wt% re-gelatinised starch), the usual additives and
ter, (such that the starch/water ratio is 75/25-55/45).
The carrier may be wetted with an edible oil before
dn. of the other components. 9.10.73 as 350638(4pp47)

OGL/ D13 26770V/14 =DS 2360-126
aled plastics food packaging provided with degassing valve -
ving valve member sealed on seat by viscous layer
GOGLIO L 04.12.72-IT-032439
*A88 Q32 +Q33 Q34 Q66 (19.07.79) *US3799-427 B65d-33*
B65d-51/16

pressure relief valve for packages, e.g. of bags of food
uch as roasted coffee or grated cheese which develops
as subsequently, consists of a valve seat, made of poly-
thylene or polypropylene. A natural rubber disc, covered
n the contact side by a viscous layer such as silicone oil,
loses the opening into the bag, under which a perforated
eb prevents the dropout of any food. The periphery of the
isc can be bent up by internal gas pressure because only
ts centre is held down by a pin on the cover. Holes in the
cover permit the gas to escape.
This ensures that gas can escape but the contents rem-
ain sealed. 3.12.73 as 360126(4pp39)

BATT D13 46337X/25 =DS 2458-650

Low-calorie food mixt contg marshmallow compsn - comprising homogeneous mixt contg alpha cellulose, proteins, lipids and carbohydrates

BATTELLE MEMORIAL 09.12.74-DT-458650

*A97 (19.07.79) *DT2458-650 A23l-01/30*

Confectionery with low calorific value comprises $\geq$1 layer of marshmallow and $\geq$1 layer contg. protein (3-5 wt%), lipoids (3-10 wt%/, carbohydrate (45-60 wt%), purified a-cellulose powder (20-30 wt%), and water (10-15 wt%), with a max. energy content $\geq$1254 J/kg.

The pref. ratio of marsh mallow to the other components is 0.5-1 by vol. 9.12.74 as 458650(2pp47)

TANA/ D13 22156Y/13 =DS 2639-130

Encapsulated foodstuff - comprises chlorella algae, powdered aq. extracts of garlic oil and American aloes, and a vegetable oil in an edible capsule

TANAKA Y 13.09.75-JA-110485

*(19.07.79) *DT2639-130 A23l-01/22 A23l-01/30*

Nutrient in a water soluble digestible capsule comprises a mixt. of powdered aq. extracts of Chlorella algae, garlic and/or ginseng and/or American aloe; and $\geq$1 plant oil, pref. ground nut oil, cocoa nut oil and/or soya bean lecithin. 31.8.76 as 639130(3pp47)

FAZE- ★ D13 54855B/30 ★DT 2901-093

Continuous deodorisation of cocoa butter - by steam distn. in a thin-film evaporator (NL 16.7.79)

FAZER AB 16.01.78-SW-000463

R34 (19.07.79) G11b-03/14

Process comprises homogenising cocoa butter (A) with deionized or distilled water, then continuously passing the homogenate to steam distillation in a thin-film evaporator, to expel water and volatile aromatic components. The deodorised (A) is withdrawn continuously from the evaporator.

Pref. water is 10 ± 1 wt.% on the homogenate and the evaporator operates at steam pressure 2.5 ± 0.5 atmos., 65 ± 15°C and 10-30 mm Hg vacuum.

Used for mfr. of cocoa and chocolate. Material loss is only 0.3% c.f. 1.5% in conventional batchwise methods and since exposure to high temp. is short there is no increase in peroxide no. (the natural antioxidants are not lost). 12.1.79 as 901093 (8pp1251)

ARIE- ★ D13 54951B/30 ★FR 2406-393

Treating milk prods. to reduce the lactose content - using enzymes derived from saccharomyces fragilis

ARIES EMILE SA 21.10.77-FR-031783

(D16) (22.06.79) A23c-09/12

The prods. of low lactose content are prepd. by treating the prod. in the presence of β galactosidase or purified lactase extracted from a strain of Kluyveromyces fragilis yeast of the type Saccharomyces fragilis.

A process as above for hydrolysing 70-90%, esp. 80%, of the lactose from lactoserum comprises eliminating Na and Ca ions, activating with K ions and operating at 40°C and pH 3-6 for 3-6 hrs. The prods. of the 1st process are milk. Condensed milk, yoghurt, and desserts the lactose content of which has been reduced by 40-90% and replaced by galactose and glucose.

The prods. are used in human and animal feeds and the process avoids the problems of intolerance to lactose. Pigs and poultry are able to eat three times more treated lactoserum. 21.10.77 as 031783 (5pp597).

CERE- ★ D13 54952B/30 ★FR 2406-395

Foodstuff additive for horses - giving high-protein diet and controlled intestinal activity

CEREX 24.10.77-FR-033088

C03 (22.06.79) A23k-01/18

Foodstuff additive for addn. to normal diet of horses comprising (a) a mixt. of natural substances e.g. proteins, aminoacids, trace elements, minerals and vitamins which increase the assimilation rate of the food, (b) substances to increase the efficiency of liver, kidneys and intestine to give a perfect intestinal function in spite of high-protein diet and the laxative effect of some material such as seaweed and (c) mineral and vegetable matter to stimulate bone development.

Mixt. comprises seaweeds, phosphates, yeasts, fish autolysate, fish meal, dried milk, predigested starch, beef extract, soya, lecithin etc.. It may comprise artichoke extract, green argile and sorbitol. 24.10.77 as 033088 (11pp288).

GENO D13 38031X/20 #GB 1549-056

Dry mix for preparing yoghurt-like dessert - contg pregelatinised starch, edible acid, and hydrocolloid gum

GENERAL FOODS LTD 02.05.74-US-466585 (06.04.76-GB-013927)
*(25.07.79) *US3955-009 A23l-01/18*

A dry dessert mix compsn. which is free from cold water-soluble gelatin is prepd. which comprises a pregelatinised and/or modified starch, an edible acid and a hydrocolloid viscosity improver.

The proportions of the ingredients of the compsn. are such that the dry mix compsn. may be reconstituted by the addition of milk to produce a prod. of yoghurt-like consistence having pH 3-5. Pref. pregelatinised starch is a modified tapioca starch present in amt. 5-20wt.%, and hydrocolloid viscosity improver is guar gum present in amt. 0.1-2wt.%.

A tangy instant yoghurt-like prod. can be prepd. which is ready to serve in 5 mins. 6.4.76 as 013927 (3pp931).

GAST/ D13 34443A/19 =GB 1549-088

Cotton seed treatment

GASTROCK E A 08.09.76-US-721203
*C03 +P41 (25.07.79) *J53034-937 +A23l-01/20*

Cottonseed kernels are treated by dry comminution of the meats in a manner which minimises the rupture of associated pigment glands. A slurry is formed of the comminuted meats with a solvent for the oil obtd. in the meats, and the meats comminuted in the slurry such that the rupture of pigment glands is minimised.

The resultant slurry is then fed sequentially through a series of ⩾3 cyclones with the underflow of each cyclone (except the last) forming the feed for the next. The overflow of each cyclone subsequent to the first is recycled to the feed of the previous cyclone.

A protein-rich flour concentrate of comminuted meat is recovered from the overflow of the first cyclone. Solids >a predetermined size are sepd. from the first cyclone underflow before being passed to the feed of the second cyclone. Sepd. solids are added to the slurry for comminution. The underflow of the last cyclone is then sepd. into an oil-contg. solvent and a high-gossypol meal. 8.9.77 as 037572 (10pp934).

CRES- ★ D13 54978B/30 ★GB 1549-156

Treating raw potatoes after cold storage - by sequential immersion in three blanching solns. to improve storage quality

CRESTON VALLEY FOOD 03.02.78-GB-004462 (10.05.74-CA-199477)
A92 (25.07.79) A23b-07/14

Raw white potatoes which have been stored at 40-45°F are treated by immersing the peeled potatoes (opt. divided) in an aq. soln. contg. 0.2-4wt.% citric acid (or its Na or K salts) and 0.005-0.8wt.% SO_2 (opt. as Na or K (bi)sulphite or metabisulphite). The soln. has pH 2.3-6.5 and treatment is for 1 min. at 190°F to 5 min. at 110°F.

The potatoes are then immersed in a 0.5 - 1.5 wt.% soln. of Na or K pyrophosphate for 15 sec. at 212°F to 60 sec. at 140°F, and finally in an aq. soln. of 0.05-0.5 wt.% non-toxic alkaline earth metal salt (esp. $CaCl_2$) for 15 sec. at 212°F to 60 sec. at 140°F. Pref. the second soln. contains 0.5-2.5wt.% reducing sugar (esp. glucose) and the third soln. 0.5-8wt.% NaCl or KCl.

Quality for thermal sterilisation and prolonged storage without liq. in flexible containers is improved. Elasticity, firmness and integrity of the potatoes are improved and pieces do not tend to stick together. 3.2.78 as 004462 Add to 1510833 (5pp1251).

MRSC D13 00011Y/01 =GB 1549-196

Storing stable foodstuff contg. protein pieces - in pref. gelled aq. medium contg. microorganisms producing acids

MARS INC 17.06.75-GB-025820
*C03 (25.07.79) *BE-843-019 A23b-04/12*

aceous foodstuff in a gelled or thickened aq. mediu prepd. by forming a mix contg. particles or pieces edible proteinaceous tissue suspended in an aq. me fermentable substance, gelling agents and antimyco

Mix has a protein content of 6-20wt.%, a fat con 3-12wt.%, and pH > 4.5. A culture of acid-produc microorganisms is incorporated into the mix, and f tation promoted until the pH falls < 4.5 to produce microbiologically stable compsn. of moisture conte 65-95wt.%.

Used esp. in the prepn. of brawns and meat-in-j meat-in-gravy prods. 17.6.76 (5pp931).

KIBU- ★ D13 54986B/30 ★GB 1

Soybean milk prodn. without beany flavour or bitterne grinding cooked beans with aq. sodium bi:carbonate (BR 2.8.

KIBUN CO LTD 21.07.75-JA-088441
(25.07.79) A23c-11 A23j-01/14 A23l-01/20

Soybean milk is produced by first cooking unsoaked beans in aq. medium at 60°C- 6 pt. for 4-15min. T beans are then ground while bringing into contact wit $NaHCO_3$, then the slurry allowed to stand to extract teins and other water-soluble components. Solids al determined particle size are then removed from the

The cooking medium is water or aq. alkali soln., 1% $NaHCO_3$ soln., esp. it is recovered and recycled the grinding stage. The extn. is esp. at> 70°C.

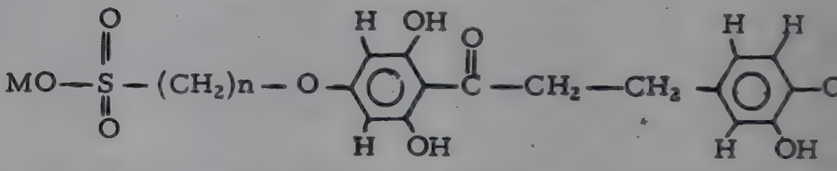
The milk is suitable for direct use as a beverage. process is simpler than known methods. 15.7.76 as 029594 (3pp1251).

DYNL D13 61655X/33 =GB 15

Water-soluble dihydrochalcone sweetening agents - and flavanone inters prepd from hesperidin and its analogues

DYNAPOL 13.02.76-US-657905 (24.03.75-US-561522)
*B05 E12 (25.07.79) *BE-839-957 A23l-01/23 C07c-143/42 311/32 +C07c-47/56 C07c-49/82*

Dihydrochalcones of formula (I) (where R is 1-3C alk is 1, 2 or 3 and M is cation) are new.



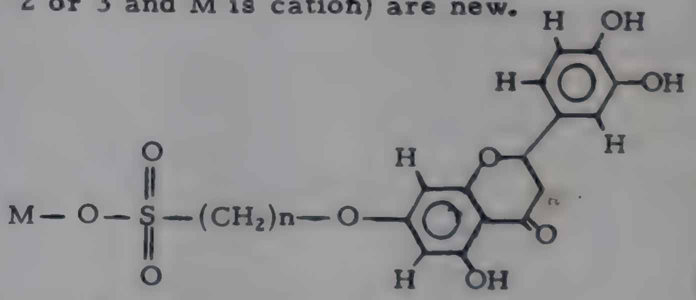
(I) are used to sweeten consumable materials such foods. They have the taste of sucrose without any ac panying tastes or aftertastes. 23.3.76 as 011681 (13

DYNL D13 61655X/33 =GB 15

Water-soluble dihydrochalcone sweetening agents - and flavanone inters prepd from hesperidin and its analogues

DYNAPOL 13.02.76-US-657905 (24.03.75-US-561522)
*B05 E12 (25.07.79) *BE-839-957 A23l-01/23 C07c-47/56 49/82 C07d-295/22 C07d-311/32 +C07c-149/16*

Flavanone cpds. of formula (I) (where R is 1-3C alky is 1, 2 or 3 and M is cation) are new.



(I)

(I) are used as sweeteners for consumable materials as foods. They have the taste of sucrose, without any extra accompanying tastes or aftertastes. 23.3.76 as 4403/78 Div. ex 1549232 (12pp936).

IDEK ★ D13 55032B/30 ★J5 403

Prepn. of shumai chinese food - involves using yeast subjec protease treatment

IDEMITSU INDUSTRIES KK 19.08.77-JA-098703
(10.03.79) A23l-01/34

Method comprises (1) treating a suspension contg. cr yeast body with protease; (2) if necessary, adding ino ic calcium cpd. and/or polyphosphate to the suspensio

abining thus obtd. dry yeast in the material for
.
nai excellent in taste and flavour and texture, can
od. without using chemical seasonings. By treating
ve, odourless yeast can be obtd. and the use of yeast
widened. 19. 8. 77 as 098703 (4pp5).

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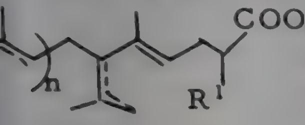
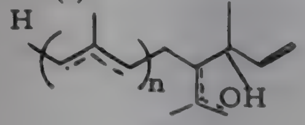
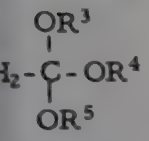
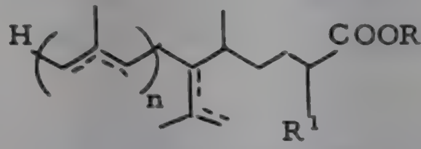
r D13 55073B/30 ★ J5 4073-726
, delta-unsatd. terpenoid ester used in cosmetics, and
es - obtd. by reacting allyl alcohol with ortho carboxylic acid

ARAY KK 15.11.77-JA-137625
*C03 E19 (D21 D23) (13.06.79) A23l-01/22 A61k-07 C07c-
52*
, δ -unsatd. ester of formula (I) is prepd. by react-
allyl alcohol of formula (II) with ortho carboxylic
ster of formula (III) and opt. conversion of the γ, δ -
. ester of formula (IV) into (I).


(I)


(II)

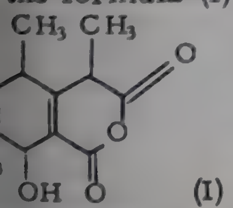

$H_2\text{-}\overset{OR^3}{\underset{OR^5}{C}}\text{-}OR^4$
(III)


(IV)

formulae, n = 0-2; R^1 is H, lower alkyl, cycloalkyl,
yl or aryl; R^2 is alkyl, cycloalkyl, alkenyl or aryl;
are lower alkyl.
are useful as cosmetic base and perfume (esp. for
ndustry), and as synthetic intermediate for tobacco
ur, agrochemical (n = 0, polyene series insect growth
dant) and drug (antiulcer e.g. farnesyl esters).
. 77 as 137625 (7pp38).

/ ★ D13 55388B/30 ★ J5 4075-376
nting malodour in rearing of poultry or livestock - by coating
of building with feedstuff admixed with active carbon and
r
WASHIMA Z 28.11.77-JA-142981
3 (D22) (16.06.79) A23k-01/16 B01d-53/02
vated C prepd. from stripped bamboo and minerals is
d to conventional feedstuff of poultry or livestock, and
eedstuff is fed to the poultry or livestock. Simultane-
y the mixt, is further mixed with binder which cannot
age the absorption ability of the activated carbon. The
le mixt. is coated on the surface of a house of the
try or livestock, where the bad odour of excretions
oultry and livestock can effectively be removed. Amt.
ne activated C and mineral to be used is 1.5-2.0%.
ineral may be a conventional additive for feedstuffs.
activated carbon prepd. from the striped bamboo can
orb bad odour caused by NH_3, methane, SO_2, etc.
11. 77 as 142981 (3pp22).

★ D13 55389B/30 ★ J5 4075-377
lerating growth of silkworm and increasing wt. of cocoon - by
ying to feedstuff, sclerin obtd. as metabolite of sclerotinia
tiana or sclerotium
IKASA KAGAKU KOGYO KK 28.11.77-JA-142541
02 (16.06.79) A23k-01/18
dstuff which is incorporated with sclerin, is fed to
worm, so growth of silkworm is accelerated and the
of cocoon is increased. The sclerin is a metabolite
clerotinia libertiana or Sclerotinin sclerotiorum and
the formula (I) melting at 123°C.


(I)

The sclerin is used in an aq. soln. of pH 6. The amt. of (I) used is 0.025-25ppm. w.r.t. the total amt. of the feedstuff. The feedstuff contg. sclerin is used for the young silkworm growth until 5 years. Usually, feedstuff is immersed in an aq. soln. of sclerin,
owed by drying, whereby the desired feedstuff mixt. is
d. quite easily. 28. 11. 77 as 142541 (2pp22).

K- D13 78616X/42 = J7 9017-675
stitute milk compsn for suckling calves - comprises by-prod of
cessed milk prodn., calcium lactate and e.g. glucose
ENKOKU NOGYO KYODO 26.02.75-JA-022801
*C03 E12 (C01) (02.07.79) *J51100-480 + A23c-11*

Compsn. consists of 40 to 70 wt.% by prod. of processed milk prodn. e.g. powdered skim milk, or whey 0.3 to 5.0 wt.% Ca lactate calculated as $Ca(CH_3CHOH\text{-}COO)_2.5H_2O$, and the balance powdered fat, premix, or glucose. By addn. of Ca lactate, digestion is promoted by keeping pH value to relatively low and releasing Ca ion. 26.2.75 as 022801 A23c-11/00 (2. 7. 79) ZENKOKU NOGYO KYODO (5pp)(J51100480)

STAM D13 32468U/23 = J7 9017-727

Alkyl esters of aspartyl dipeptides - used as sweetening agents

STAMICARBON NV 19.11.71-NL-015944

*B05 E16 (02.07.79) *DT2256-055 C07c-103/52 + C07c-102*

Alkyl esters of aspartylamino acids are prepd. by reaction of N-protected aspartic anhydride with a lower alkyl ester of an amino acid, opt. in the form of its salt, by carrying out the reaction in water as solvent. The reaction is pref. at -10° to +50°C and pH 4-12. The N-protected aspartic anhydride is specif. N-formyl-aspartic anhydride. Suitable amino acid esters are phenylalanine, tyrosine, MeO-tyosine, aspartic and glutamic acids, hexahydro-phenyl alanine and -phenylglycine. These amino acids give prods. which are of use as sweetening agents. The α-form only has sweetening props. High selectivity of about 90% for the α-isomer is obtd. which may be sepd. from the β-isomer e.g. by crystn. in the case of L-α-aspartyl-L-phenyl -alanine methyl ester. 17.11.72 as 115466 (clg. 19.11.71-NL-015944) C01c-103/52, 102/00 (2. 7. 79) STAMICARBON N. V. (4pp)(J48061451)

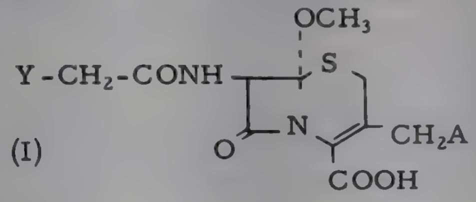
SANY D13 38027W/23 = J7 9017-755

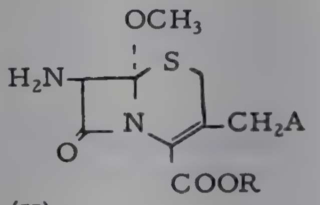
7-Beta-Acylamino-7 alpha-methoxy-cephalosporins - prepd e.g. by N-acylation of N-deacyl cpds.

SANKYO KK 26.11.73-JA-132441

*B02 C02 (02.07.79) *DT2455-884 C07d-501/28 + A61k-31/54*

Cephalosporins of formula (I):-


(I)


(II)

(where A is acetoxy, carbomoyl or 1-methyl-1H-tetrazol-5-ylthio, and Y is cyano-methylthio, 1-cyanoethylthio, proparylthio, azidomethylthio, 2-hydroxyethylthio, 3-isoxazolyloxy, 3-isoxazolylthio, methylsulphonyl, ethylsulphonyl, 2-cyanoethylsulphonyl or sydnon-3-yl), e.g. 7β-cyanomethylthioacetamido-7α-methoxy-3-(1-methyl-1H-tetrazol-5-ylthiomethyl)-3-cephem-4-carboxylic acid, and their non-toxic, pharmaceutically acceptable salts are new cpds.

The may be prepd. by reacting a cpd. of formula (II) (where R is a carboxy-protecting gp.) with an acid of the formula $Y\text{-}CH_2COOH$ (III) or a reactive deriv. thereof (pref. an acid halide of (III)) and eliminating the carboxyl-protecting gp. R from the product. (I; A = 1-methyl-1H-tetrazol-5-ylthio) may also be obtd. by reacting (I; A = acetoxy or carbamoyloxy) with 5-mercapto-1-methyl-1H-tetrazole (IV).

(I) are antibacterials which may be used as animal feed additives or as medicaments for animals, birds or humans for treating gram-positive and gram-negative bacterial infections. 26.11.73 as 132441 C07d-501/28, 501/06, 501/34, 501/36, A61k-31/545 (2. 7. 79) SANKYO KK (14pp) (J50083384)

LIOC ★ D13 55656B/30 ★ J7 9017-807

Stable, oily emulsion foodstuff prepn. - from edible oil, vinegar, spice, emulsifier, etc., with addn. of protein powder and xanthene gum

LION DENTIFRICE KK 22.03.74-JA-031563

(03.07.79) A23d-05 A23l-01

In the prepn. of oily emulsion foodstuff from edible oil, vinegar, spice, emulsifier, etc., 0.5-10 % protein powder, selected from egg white, soybean protein and casein, and 0.1-5% xanthane gum are added.

The emulsion is stable and has improved texture.

22.3.74 as 031563 A23d-5/00, A231-1/00 (3.7.79) LION DENTIFRICE KK (3pp22)(J50125050)

NEST D13 50941W/31 = J7 9017-809
Treatment of foodstuff poor in lysine by addn. of L-lysine - deriv giving free acid by metabolism e.g. for cereals esp. bread
SOC PROD NESTLE SA 05.03.74-CH-003123
*E16 (E14) (03.07.79) *BE-824-485 A21d-02/24 A23l-01 +A23k-01/16*

Foodstuff poor in lysine are treated by addn. of a suitable amt. of a metabolic substd. L-lysine. The foodstuff may be cereal based e.g. bread or milk flour. The lysine deriv. may be an alpha-acyl L-lysine, an aminoacyl- or an α, -diaminoacyl-L-lysine or a Schiffs base.

The process is used for fortifying cereals and equilibrating the diet of populations living on vegetable foodstuffs which one deficient of essential amino acids. Lysine itself combines with reducing sugars present in the food and consequently a large excess of free acid would have to be added. 4.3.75 as 026446 (clg. 5.3.74-CH-003123) A231-1/00; A21d-2/24; A23k-1/16 (3.7.79) SOC PROD NESTLE SA (6pp)(J51007303)

KANE ★ D13 55657B/30 ★J7 9017-811
Fermented milk prodn. - by fermentation of defatted milk using Lactobacilli, mixing with sugar, incubating and cultivating
KANEBO KK 04.03.74-JA-025461
(D16) (03.07.79) A23c-09/12

Fermented milk obtd. by fermentation of defatted milk using Lactobacilli is mixed with sugar in an amt. of 250-500 g/liter and yeast is incubated, followed by cultivation. The resulting fermented milk has good taste and flavour. 4.3.74 as 025461 A23c-9/12 (3.7.79) KANEBO KK (5pp22) (J50117965)

KANE ★ D13 55658B/30 ★J7 9017-812
Prepn. of fermented milk contg. carbon di:oxide - by cultivating mixt. of sugar, yeast and fermented milk
KANEBO KK 04.03.74-JA-025462
(D16) (03.07.79) A23c-09/12

Fermented milk obtd. by fermentation of deffated milk with the use of lactobacilli is mixed with sugar in an amt. of 250-500 g/l and yeast starter incubated, then static cultivation effected.

Fermented milk contg. carbon dioxide, having good taste and flavour is obtd. 4.3.74 as 025462 A23c-9/12 (3.7.79) KANEBO KK (5pp22)(J50117966)

KIKK ★ D13 55659B/30 ★J7 9017-813
Powdered seasoning compsn. prepn. - by treating seasoning liq. with starch and alpha amylase and drying
KIKKOMAN SHOYU KK 07.05.74-JA-049718
(D16) (03.07.79) A23l-01/22

To seasoning liq. are added starch and α-amylase, followed by heating, whereby the starch is pasted and liquefied by the action of α-amylase, and the resulting substance is dried to give powder. The resulting powder composn. is soluble completely in water. 7.5.74 as 049718 A231-1/22 (3.7.79) KIKKOMAN SHOYU KK (4pp22)(J50142762)

MORA- ★ D13 B/30 ★RU --66-785
Dietetic foodstuff - based on soya bean flour, sunflower seeds and sugar syrup
INTR MORARIT PANIFI 25.10.74-RU-080309
(30.11.78) A23l-01/10

DAIR= ★ D13 55716B/30 ★SU -626-750
Low-fat soured milk drink prepn - includes souring milk with mixt. of Lactobacterium bulgaricum strains 7 and 24 and Streptococcus diacetilactis apple strain
DAIRY IND RES INST 10.12.76-SU-428737
(D16) (11.09.78) A23c-09/12

Soured milk drink is prepd. by normalising milk with respect to fat, heating; homogenising; pasteurising; cooling to the souring temp.; introducing a souring prepn. contg. a mixt. of pure cultures of Lactobacterium bulgaricum and a mesophilic streptococcus; effecting souring cooling; mixing, and pouring the prod. into containers.

The method is improved by using a mixt. of Lactobacterium bulgaricum strains Nos. 7_n and 24; this mixt. is combined with a three-fold quantity of streptococcus dia-

38 °C for 3-4 hr.
The trade name of the drink is 'Kolomenskii'.
taste and consistency of the drink is improved; it c
less fat than the similar prods.
Zobkova E.S., Padaryan I.M., Mytnik L.G. et al.
37/5.10.78 10.12.76 as 428737 (3pp70)

DAIR= ★ D13 55717B/30 ★SU
Coagulant from whey for cottage cheese prodn. - include
treatment, specified bacterial fermentation clarificat
electrodialysis
DAIRY IND RES INST 08.04.77-SU-475330
(11.09.78) A23c-21 C07c-59/08

A coagulant is produced from whey in cottage che
prodn. by clarification of the whey followed by ele
dialysis to remove salts and concn. of the lactic a
salts in an aq. soln.
A high lactic acid concn. and low salt concn. in
coagulant is obtd. if the whey is heated to its sepn.
before clarification mixed with lactic flora bacteri
-er and fermented to an acidity of 100-240 °T.
Marin V.A., Dankova R.I., Bul. 37/5.10.78 8.4.
475330 (3pp1047)

RABB= ★ D13 55718B/30 ★SU
Granulated feed mix for young rabbits - contg. grass, oats,
fish, bone flour, yeast, wheat bran, sunflower cake and ac
agent
RABBITS FUR ANIMALS 11.03.77-SU-461024
C03 (14.08.78) A23k-01/18

The compsn. contains (in wt.%) grass flour 28-30,
oat 11.0-11.5, ground barley 13.0-13.5, wheat bra
14, sunflower press cake 25-27, fish flour 2.0-2.5
der yeasts 1.0-1.5, bone flour 0.5-0.6, common s
0.6, and an acidophilic prepn. (I) 2.0-2.5.
The addn. of (I) to compsn. permits redn. of the
ing time to 30 days. It can be used for female rabb
as well.
Anakina Yu.G., and Morozova K.N., Bul. 37/5.10.
11.3.77 as 461024 (2pp70)

VAKH= ★ D13 55719B/30 ★SU -
Fodder additive for livestock e.g. cattle and sheep - pr
reacting urea with formaldehyde and adding methionine
VAKHSH NITROGEN FER 19.04.76-SU-351496
A97 C03 E16 (A21) (11.09.78) A23k-01/22

Fodder additive is produced by reacting urea with f
dehyde according to the equation $CO(NH_2)_2$ α CH_2O —
$(NH_2)_2$. CHOH.
This process is improved by carrying out the ab
reaction at 110-120 °C and introducing 2.86-fold exc
urea w.r.t. the formaldehyde. Subsequently, meth
is added and the mixt. is cooled to room temp. By
method, product with good mechanical properties a
high nutrient values is obtd.
Martirosyan G.A., Akimov E.V., Prikhodko Yu.A.
al. Bul. 37/5.10.78 19.4.76 as 351496 (2pp70)

MOFA= ★ D13 55721B/30 ★SU -
Storage stable mayonnaise prodn. - using dried milk,
powdered mustard seed, vegetable oil, egg powder, vine
and soda in specified manner
MOSC BR FATS RES (MOFA=) 25.07.77-SU-511404
(11.09.78) A23l-01/24

Mayonnaise is produced by first mixing together dr
ponents in particular dried milk, sugar salt and sod
then adding mustard, a part of water, a part of a ve
oil, egg powder and aq. soln. of vinegar; heating th
paste; cooling; adding the remainder of the vegetabl
and homogenising the resulting coarse emulsion.
By adding mustard to the mixt. in the dry form;
aerating the heated mixt. under vacuum; mixing the
powder with the vinegar soln. and continuing this m
with the cooled paste; and before the homogenisatio
heating again the coarse emulsion, then cooling and
aerating under vacuum. The process is simplified;
bacterial population in the emulsion is reduced, and
stability of the emulsion is improved.
Fannev G.G., Gening U.N., Shmidt A.A. et al. Bu
5.10.78 25.7.77 as 511404 (2pp70)

= ★ D13 55723B/30 ★SU -626-757
ends severing machine - has bottom conveyor belt rotating
s singly, in orientating units during cutting
ESS FOOD EQUIP 03.02.77-SU-452157
(11.09.78) A23n-15/08

installation comprises a load hopper with trough ele-
r, guides, orienting units and knife mechanisms. In
r to improve cutting for onions of any shape, a trough
d of the guides contains a worm, grippers with knife
s are mounted perpendicularly to the units and a con-
r belt forms the base for the units.
he belt is oscillatable and the transverse wall of the
are movable vertically. The pitch of the worm helix
ref. equal to the length of a unit and the troughs are
red to the elevator in spaced gps. The worm trough
ref. pivotable.
snik M. F., Bul. 37/5.10.78 3.2.77 as 452157 (3pp
)

J= ★ D13 55881B/30 ★SU -627-111
ersion of bird droppings to fertiliser or fodder - includes hot air
steam treatment, phosphate addn., vacuum dehydration and
ulation
KR POULTRY BREAD (KHPO) 10.10.75-SU-181877
04 (C03) (06.10.78) A23k-01/17 C05f-03

cost of dehydrating bird droppings to form a fertilis-
or fodder can be reduced 1.3-1.5 times and the con-
nption of alkali used for neutralisation of the by-prods.
be reduced 10-15 times if the droppings are heated
partially dehydrated prior to mixing with phosphoric
d, using a stream of gaseous heat carrier such as air,
310-355°K, passed at a rate of 1.5-3.5m/sec., The
xt. with the phosphoric acid is then dehydrated by war-
ng with vacuum pumping.
The method claimed in Parent Patent 478829. Drop-
gs with a moisture content of 75-80% were mixed with
at 350°K with movement at a rate of 2m/sec., when
moisture was reduced to ~ 70%. Phosphoric acid
s added in an amt. of 28 kg/ton droppings together with
dium phosphate in an amt. of 120 kg/ton the phosphates
nounting to 5-15% of the wt. of droppings. The mixt.
s dehydrated at 130-150°C and 150-250 mm the vapours
rtly condensed, and the remaining gas treated with pot-
sium hydroxide. The solid prod. was granulated to
ve fertiliser contg. 15.3% moisture, 2.8N, 10.5 phos-
orus anhydride, 1.3 potassium oxide and 6.2 sodium,
d the liq. prod. was used as irrigation liq.
vdokimenko I.K., Ivko I.I., Kovalenko V.I. et al. Bul.
/5.10.78 10.10.75 as 181877 Add to 478829 (2pp815)

YB D13 32694V/26 =SU -627-759
llalan esters mixed with amylase and gelatin
HAYASHIBARA BIOCHEM 18.12.72-JA-126949
A96 B04 F01 (B07) (05.09.78) =DT2362-985 +C08j-05/18 C08l-05

ullulan esters (I) are prepd. by reacting pullulan with
n aliphatic or aromatic carboxylic acid or an anhydride,
cid chloride or ester thereof. Compsns. prepd. by mix-
ng (I) with (a) < 120 wt.% amylose and/or < 150 wt.%
elatin and/or (b) 1-50 wt.% of a plasticiser (esp. H_2O
cetone glycerol, ethylene glycol, propylene glycol, poly-
rincyl alcohol, sorbitol or malitol) are useful for coating
or packaging oxidn-sensitive prods. e.g. foods, medica-
nents vitamins, enzymes, dried yeast, dyes, flavouring
gents, spices and essential oils. They are water-sol. or
swellable impermeable to air, flexible and biodegradable.
Hijiya H., Siosaka M., Bul. 37/5.10.78 18.12.73 as
982553 (10pp)

MOGI= ★ D13 56023B/30 ★SU -627-806
Milk sterilising appts. - has corrugated walls, and turbulising plates
with plate apex perforations, for enhanced mixing
MOGILEV TECHN INST 09.03.77-SU-461716
(21.08.78) A23c-03/02 A23l-03/16

Appts. for sterilising liquid food prods., particularly milk
comprises a steam treatment chamber with a turbuliser,
a steam chamber, and a steam distributor. To improve
efficiency and minimise overheating of the milk, the tur-
buliser consists of two vertical plates along the chamber

The chamber side walls and the plates are corrugated, with a phase shift of half a pitch, and the plates are perforated in the apexes of the convexo-concave sections.
Fedorov G.S., Levandovskii S.R., Bul. 38/15.10.78
9.3.77 as 461716 (3pp1358)

COFE= ★ D13 56024B/30 ★SU -627-807
Sugar-based sweets prodn. - includes specified thermal treatment of sugar mixt. contg. e.g. dextrin-maltose syrup fat-contg. seeds or dry fruit
CONFECTIONERY IND 18.02.77-SU-455134
(22.08.78) A23g-03 A23l-01/36

Eastern sweets are produced by mixing a sugar-contg. material with other components loading the mixt. into moulds and cooling.

The process can be intensified by using sugar powder as a sugar source, and melting the mixt. before cooling. The melting is pref. carried out at 150-200°C for 1-5 min

Sugar powder can be mixed with a dextrin-maltose syrup and fat-contg. seeds (e.g. sunflower seeds) and a minor quantity of water, Instead of fat-contg. seeds, dry fruits can be used. The mixt. is thoroughly stirred, and then placed between two surfaces heated to 150-200°C The surfaces have recesses in the form required for the sweets. The prod. is cooled to 15°C over 10 min., and then packed.
Nikiforova V.N., Mukhtashov A.M., Kusnetsova L.G. et al. Bul. 38/15.10.78 18.2.77 as 455134 (2pp70)

FURA= ★ D13 56025B/30 ★SU -627-808
Feed for young sables in fur farms - modified by addition of animal fats to reduce cost
FUR ANIMALS HUSBAND 04.05.77-SU-483947
C03 (21.08.78) A23k-01/18

The cost of feed for young sables in fur farms is reduced by 25-30% by addition of animal fats, whereby a part of more expensive animal components of the feed can be replaced by cheaper prods.

The compsn. contains (in wt.%) liver 3-4, cattle heads, 10-12, subprods. 15-25, fish 21-30, milk prods. 15-20, animal fats 0.5-2.0, cereals 9-10, vegetables 2-5, yeasts 1.0-1.5, vitamins 0.1-0.4.
Kladovshchiko V.K., Gladilov Yu.I., Bul. 38/15.10.78
4.5.77 as 483947 (3pp70)

ULVE/ D13 34800Y/20 #US 4160-408
Foodstuff treatment tank - with rotating hollow shaft for charging and discharging and corrugated radial partition
ULVESTAD O P 03.11.75-NO-003667 (01.12.76-US-740935)
C03 +P12 P28 Q35 (10.07.79) *DT2650-052 A47j-37

Appts. for treating pumpable foodstuffs and fodder with heat and/or pressure comprises a cylindrical container with an axial radial wall sealing against the ends and side and with a shaft for supplying and removing material on opposite sides of the wall.

The wall and container are mutually relatively rotatable so that the material remains at rest relative to the wall. The shaft pref. consists of two concentric pipes, the outer for withdrawal and the inner for supply, and communicating with different sides of the wall along its whole length. The pipes are pref. led out of opposite ends of the container. 1.12.76 as 740935 (5pp1358).

ALZA D13 74740A/42 =US 4160-452
Osmotically acting release device - whose walls are a laminate with a semipermeable and a microporous layer
ALZA CORP 07.04.77-US-785582
B07 C03 +P34 (D21 D22) (10.07.79) *DT2814-709 A61m-31

Osmotic system for dispensing a drug to a biological fluid environment comprises (a) a shaped laminated wall comprising a semipermeable lamina (permitting fluid passage but not the dry) laminated with a microporous lamina, the wall forming a compartment for the drug; (b) a passageway in wall for dispensing drug; and (c) when system is in use in the partic. environment, fluid from latter passes through wall into compartment by osmosis at rate determined by wall permeability, thus forming a soln. of drug which is dispensed via passageway to give controlled, prolonged drug admin.

Semipermeable lamine is pref. of cellulose acylates, diacylates or triacylate system may be adapted for use n gastrointestinal tract, vaginal use, or in the anus. 7.4.77 as 785582 (22pp963).

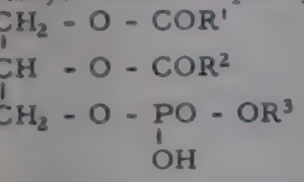
PLAC D13 14895X/09 =US 4160-773

Synthetic alkyl esters of phosphatidic acids - with surfactant, lytic and emulsifying action for use in drug formulation, soaps, cosmetics and foodstuffs

MAX PLANCK GES WISSENSCH 06.08.74-DT-437833

*B05 E11 (10.07.79) *BE-832-181 A23j-07 C07f-09/02 C11c-03*

Alkyl esters of phospholipid acid of formula (I)



$$\begin{array}{l} CH_2 - O - COR' \\ | \\ CH - O - COR^2 \\ | \\ CH_2 - O - \underset{\underset{OH}{|}}{PO} - OR^3 \end{array}$$

(I)

(where R' and R^2 are independently opt. substd. 5-25C alkyl or 6-25C haloalkyl and R^3 is 6-18C alkyl) are novel.

(I) are potent surfactants which influence the surface activity of cell membranes. They modify the activity of pharmaceuticals by increasing their absorbability and distribution in organisms.

A specific. cpd. is Sn-1,2-dimyristoyl glycerol-3-phosphoric acid hexyl ester. 12.1.78 as 868735 (+ 5.8.76-US-602030) (6pp393).

CADB- ★ D13 56218B/30 ★US 4160-774

De-gumming sal seed fat glyceride(s) - by treatment with sodium acetate-acetic acid buffer

CADBURY INDIA LTD 25.01.78-US-872183

(10.07.79) C11b-03/04

Sal fat glycerides are degummed by (a) adding Na acetate and acetic acid buffer of pH 3-5 to molten crude sal fat; (b) removing the glycerides from the buffer soln.

Sal fat has similar props to coca butter and can be used in confectionery. Losses in subsequent refining are reduced, the fat is easy to bleach, is free of the 'tanny' taste due to ellagitannins, and has good oxidn. stability. 25.1.78 as 872183 (3pp955).

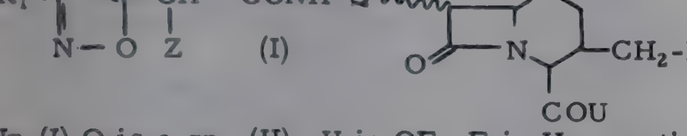
KONN D13 51365V/28 =US 4160-829

Oxadiazolyacetic acid antibiotics - penicillin, cephalosporin and other derivs of 1,2,4-oxadiazolylacetic acid

GIST-BROCADES NV 22.12.72-GB-059524

*B03 C02 E13 (B02 D22) (10.07.79) *NL7317-432 A61k-31/54 C07d-271/06 C07d-499/46 C07d-501/56*

Cephalosporanic acid derivs. of formula (I) are new.



(I) (II)

In (I) Q is a gp. (II), U is OE. E is H, a cation or lower alkyl opt. substd. with lower alkanoyloxy; X is acetocy or S-Q'; Q' is tetrazolyl, triazolyl, imidazolyl or triadiazolyl opt. substd. with 1-6C alkyl; R_1 is carboxymethyl opt. transformed into an ester or salt; and Z is e.g. H or 1-6C alkyl.

7-[3-carboxymethyl-1,2,4-oxadiazol-5-yl-acetam 3-[1-methyl-tetrazoly-5-yl-mercaptomethyl]-3-ceph 4-carboxylic acid and its salts and esters are specifi claimed. 9.5.77 as 795024 (+ 18.12.73, 24.4.75-US-425798, 571203) (33pp936).

ROQF D13 36726Y/21 =US 416

Potato pulp contg. gelatinised starch - used as extend compotes, marmalades, tomato sauce, fruit juice, confecti and pastry

ROQUETTE FRERES SA 17.11.75-FR-035016

*(10.07.79) *DT2651-791 A23l-01/19*

A food which is a fruit compote, a marmalade a tom based sauce, a fruit juice, a fruit-based drink, a con ionery contg. fruit, or a pastry contg. fruit or cocon prepd. where the food contains an amt. of neutral fla ed dried potato pulp.

Dried potato pulp is in powder form, and comprise 70 wt.% starch, 5-25 wt.% humidity, 1-7 wt.% protei (N x 6.25), 0.5-5 wt.% minerals, 0.1-1.5 wt.% oily r erials, 5-25 wt.% cellulosic materials, and 10-55 wt. difference, of other structural polysaccharides; such the amt. of pulp is effective to render the food pulpy i texture.

Potato pulp has remarkably high powers of hydratio causing it to swell up with water, giving the prod. its p texture. 15.11.76 as 742001 (8pp931).

GENM ★ D13 56261B/30 ★US 4160

Shelf stable mix for butter substitute - contg. emulsifier, hard fat opt. oil

GENERAL MILLS INC 18.04.77-US-788566 (25.08.75-US-60547

(10.07.79) A23d-03 A23d-05

A mixt. for the prepn. by the consumer of a butter su uent by addition of water or water and oil comprises 0 -80 wt.% emulsifier capable of forming a water-in-oil emulsion; 2-99 wt.% hard fat by m.pt. 29-66°C, and 0 wt.% of an oil, with the proviso that when the compsn. -tains 5-97 wt.% oil, it also contains 0.1-30 wt.% emu sifier and 2-80 wt.% hard fat. Thebutter substitute co ins 20-80 % oil, and 10-80 % water and has solid fat in of 2-35 % at 10°C, 1-20% at 21°C 0.9-15% at 27°C, 0- at 33°C and 0-5% at 37.8°C.

The product is shelf stable without refrigeration, an does not require expensive equipment for its mfr. The compsn. may be salt free, or may be salted according the needs of the consumer. 18.4.77 as 788566 (9pp955)

See Also

D12 SU 626754
D16 DS 2017590
D23 DS 2065322
D16 DL 135396
D16 J7 9017838
D16 DL 135397
D21 US 4160820

D14: FOODSTUFF MACHINERY

SYMA- ★ D14 54500B/30 ★BE-873-577

Continuous mixer for particulate solids and liquids - comprises inner duct opening into concentric outer duct both having helicoidal element carrying along solid or liq.

SOC SYMAC SPRL 20.01.78-FR-001670

A31 J02 (19.07.79) B01f

An appts. for mixing continuously solid products in the divided state with liq. products comprises two concentric ducts. The first contains a helicoidal element for carrying along a liq. or a solid. The second is of smaller section and is inside the first. It has a helicoidal element for carrying along a solid or a liq.

The second duct opens into the first downstream of the liq. or solid inlet and upstream of the outlet for the mixt. The helicoidal elements are independent and act in same sense on the products.

ghs, sauces, syrups; in the chemical industry, the fab cation of glues, the coating of polystyrene balls, the fa rication of paints, glues, varnishes, ceramics. Instea of the components being mixed mass against mass, req ing a large amt. of energy and time, they are mixed je against jet, an easier operation. The solids are fed ra ally at high speed into the liquids, the mixt. taking plac practically instantaneously, avoiding agglomerates. 19.1.79 as 873577 (19pp1192)

CIML- ★ D14 54953B/30 ★FR 2406-

Sterilisation of soft drinks - by subjection to action of microwave frequency of 800-2200 MHZ for a few seconds

CIM-LAMDS INT SARL 30.01.78-FR-002496

Q31 (22.06.79) A23l-03/30 B65b-55/16 C12h-01/16

Soft drinks are sterilised in a container made of a mate

cting the drink to the action of microwaves of fre-
y 800 - 22000 MHz pref. during a period between 10
everal tens of seconds and after pretreatment at
0°C.
e appts. pref. comprises a number of resonant cav-
n series forming a tunnel, connected by waveguides
tted with an antenna connected to a generator of
owaves; a conveyor to transport the containers into the
y; and a preheater.
e process does not call for heating of the soft drinks
e microwaves, the temp. rise brought about by the
o-waves being about 5°C, insufficient to destroy the
oorganisms contd. in the drinks. The effect of the
owaves is that the microorganisms do not reproduce.
process is much more rapid than pasteurisation. All
nicroorganisms are destroyed or neutralised in a
econds, as are contaminants known for their resist-
to high pasteurisation temps., e.g. 20 minutes at
C. 30.1.78 as 002496 (15pp1192).

N/ D14 52278Y/30 =GB 1549-098
automatic plant stalk stripping machine - with totally enclosed
er, stripping knives and conveyor belt
AN DONKELAAR J A 31.03.76-NL-003365
*P12 (25.07.79) *BE-852-786 A23n-15*
nine for stripping brussels sprouts etc. comprises an
lar rotatable member with a passageway for the stalks
pivotably connected knives movable in a plane perpen-
iar to the axis. Stalks are pulled successively through
nember by an element movable axially between a for-
l position between the knives and a rearward position
ed from the member.
he knives are pref. on bell crank levers, centrifugal
e moving the knife arm inwardly and the other arm
vardly. Each knife is in the form of a dagger with the
ing edge in the plane forming one side of the blade.
side may be divided into two parts each having at the
e side a plane. The planes are parallel and the cutting
e is in one of them. 30.3.77 as 013349 (11pp1358).

IT/ ★ D14 B/30 ★SF 7703-067
o-freezing and washing system for berries
IANTYKÖSKI M 17.10.77-SF-003067
(29.06.79) A23l

O= ★ D14 55722B/30 ★SU -626-756
uced power consumption electro-plasmolyser - with divided
ace roll electrode-having current supply to sections only in
tment zone
DESS FOOD EQUIP 14.04.77-SU-474405
(11.09.78) A23n-01
electro-plasmolyser for vegetable or animal material
nprises two counter-rotating roll electrodes, with at
st one divided into mutually insulated conductive sect-
s. To reduce power requirements, the sections are
anged along the roll generatrix and have strips which
contacted by a collector brush at the zone of nearest
proach of the rolls.
The other roll may be of conductive material and con-
cted via a collector ring and brush to one phase of a
tage source. The divided roll may be of dielectric mat-
ial and have surface conductive sections.
tin A.I., Korsunskii I.R., Bul. 37/5.10.78 14.4.77
474405 (2pp1358)

NZ/ D14 63497X/34 =SU -627-734
chine for steam peeling - has pivoting vessel with conical inlet
tion and inlet closed by piston operated inside lid
KUNZ P 15.04.75-DT-U11878
*(08.09.78) *BE-840-206 A23n-07*
press. vessel mounted on 2 shafts in bearings so that
can pivot about its centre of gravity, has an inlet sect-
n in the form of an oblique truncated zone connected to
cylindrical section with a dished end. A valved outlet
the dished end allows water introduced for the filling
run into a reception vessel attached to the outlet, this
ception vessel being connected by an eration pipe to the
ess. vessel. The valve on the water outlet closes when
e lid of the press. vessel closes and opens when the lid
the press. vessel is open. Alternatively there can
with a water outlet opening and

an aeration opening. Housed inside the vessel and offset from the centre line of the cylindrical section, so that it is directly below the press. vessel inlet/outlet opening, is a lid. This lid is operated by a hydraulic piston and cylinder.

The machine is used for steam peeling of fruits and vegetables, e.g. peaches, tomatoes, cucumbers. Vessel allows the fruits to be introduced in a gentle way so that the flesh is not damaged. Volume of the vessel compared with the amt. of fruit to be peeled is less than in known peelers so that vessel can be pressurised quicker giving better peeling results esp. of soft fruits.
Kunz P. Bul. 37/5.10.78 25.3.76 as 338315 (5pp)

UCAN= ★ D14 56029B/30 ★SU -627-812
Preserves sterilising autoclave basket - located by rollers in basket rim cut/outs and resting on arcuate, shock-absorbing elements
UKR CANNING IND RES 19.04.77-SU-477699
(21.08.78) A23l-03/10 B01j-03

Locating system for an autoclave basket comprises peripheral cutouts in the basket rim, arcuate shock-absorbing elements fixed at one end to the basket end, and freely rotatable rollers each seated on the free end of an element and with its lower part in a cutout. The part of the roller projecting beyond the basket side is equal to the gap required between the basket and autoclave wall.

On lowering the basket into the autoclave the rollers contact the inner wall and centre the basket. The rollers can move radially within the limits allowed by the elements to prevent the basket wedging. The cutouts allow the roller dia. to be approx. twice the gap size to improve operating conditions and extend service life reliability.
Kogan F.I., Reif Yu.D., Verkhivker Y.G. Bul. 38/15.10.78 19.4.77 as 477699 (3pp1358)

ODVE= ★ D14 56030B/30 ★SU -627-813
Electro-plasmolyser for fruit juice extraction - has pairs of bladed and smooth roll electrodes spaced vertically
ODESS VENDING EQUIP 23.02.77-SU-456245
(21.08.78) A23n-01

Electroplasmolyser for processing vegetable material which tends to form lumps, partic. for juice prodn. comprises a housing and two pairs of roll electrodes, one under the other. In order to ensure a uniform feed, the upper pair of rolls mount knife electrodes, those on one roll meshing between those on the other and the rolls rotating relative to one another. The rolls of each pair are pref. connected to different phases of a power source.
Gatin A.I., Vaishtok Yu.G., Zelenyuk A.L. et al. Bul. 38/15.10.78 23.2.77 as 456245 (2pp1358)

ORCH= ★ D14 56031B/30 ★SU -627-814
Fruit and vegetables size grader - with double flap members pivotable on rods over chain conveyor, for sizing slot variation
ORCHARD VINEYARD EQ 03.01.77-SU-440397
P43 (21.08.78) A23n-15 B07b-13/04

Appts. for sorting fruit and vegetables by size includes a chain conveyor and transverse members mounted on rods and connected to the conveyor by links to form a sizing web.

In order to simplify design and improve efficiency, each member is pivoted to a rod and consists of two profiled flaps with the ends secured in brackets and movable relative to one another. Pref. there are springs mounted on the rods ahead of the brackets.

The lower part of each flap has a projection for location in the bracket slots. The links also act as stops and the springs prevent displacement of the brackets on the rods. Each bracket has several slots permitting the flap distances to be varied to give various sizing slots.
Krivopisk L.G., Bruter I.M., Voldman V.I., Bul. 38/15.10.78 3.1.77 as 440397 (2pp1358)

D15: WATER TREATMENT

SUMO ★ D15 54496B/30 ★BE -873-554
Analysis of total nitrogen content of aq. systems - e.g. sea and river water, by passing inert gas into system and determining gaseous prods.
SUMITOMO CHEMICAL KK 31.01.78-JA-010243 (19.01.78-JA-005066)
J04 R16 (18.07.79) G01n

The analytical determn. of the total nitrogen content in aq. systems involves first passing an inert gas contg. neither nitrogen or CO through (a) a reaction tube contg. a decomposition catalyst, kept at 700-1200°C; (b) a condenser; and (c) a moisture absorption tube.

An aq. sample to be analysed is then injected into the reaction tube, and the gaseous prods. leaving absorption tube (c) are passed into a mass spectrometer to determine the nitrogen content. The signals from the mass spectrometer are then analysed.

Process can be used to analyse aq. systems such as sea or river water and various waste waters. The total nitrogen content is determined with high sensitivity. 18. 1. 79 as 873554 (18pp1319)

REAK- ★ D15 54518B/30 ★BE -874-886
Uranium cpds. recovery from waste solns. - obtd. in conversion of ammonium uranyl carbonate during nuclear fuel prepn.
REAKTOR BRENNELEMEN 16.03.78-DT-811559
E31 K05 M25 (16.07.79) B01d C22b

The recovery of uranium cpds. from solns. obtd. during the conversion of ammonium uranyl carbonate, according to parent patent, involves (a) heating the soln. to 95°C, with release of CO_2 and NH_3; (b) adding NH_3, air and H_2O_2 to the degassed soln., with pptn. of the U cpds., at 50-55° C; (c) oxidising the U cpds. by steam into U_3O_8 in an oven at 800°C.

When the soln. to be treated contains nitrates, it is made to flow, immediately after stage (a) of the parent patent, into a pptn. reservoir in which there are crystalline seeds of the pptn. prod. to accelerate the process. The soln. is kept at 50-55°C and measured amts. of HNO_3 and H_2O_2 are added successively, while keeping the pH at 5.6-5.9 by controlled addn. of NH_3. The pptd. U cpds , including derivs. of the disintegration series of U, are stored for about 1 year in a decontamination reservoir. The U cpds. are then converted into U_3O_8.

The solns. are treated so that almost all the final prods are re-useable. 16. 3. 79 as 874886 Add. to 874799 (6pp)

SCHU/ ★ D15 54578B/30 ★DL -135-375
Purification of waste water contg. pesticides etc. - by treating with filter ash and/or xylitol material
SCHUSTER H 27.02.78-DL-203853
C03 (02.05.79) C02c-05/02

Purificn. of waste water contg. pesticides (e.g. herbicides fungicides, insecticides, acaricides, rodenticides, growth regulators, etc.) in dissolved, colloidal or suspended form is carried out by (a) treating with filter ash and separating solids by settling and/or mechanical sepd., and/or (b) passing the waste water over a xylitol-contg. material (crude xylitol, activated crude xylitol, an activated xylitol -contg. waste product or partially carbonised xylitol) and burning the resulting residue.

The waste water purified in this way can opt. then be subjected to biological purificn. and discharged into the main sewerage system, if necessary after adjusting the pH to 6-8. 27.2.78 as 203853(12pp367)

FARF ★ D15 54586B/30 ★DL -135-391
Prepn. of bipolar ion exchange resins - by partial oxidn. and amination of chloromethylated styrene polymers
VEB CHEMIEKOMB BITT 02.03.78-DL-203928
A91 J01 (A13) (02.05.79) C08f-08/06 C08f-212/36 C08j-05/20

Bipolar (amphoteric) ion exchange resins of aromatic structure contg. amino and/or quat. ammonium gps. as well as COOH gps. are made by oxidising 10-90% of the chloromethyl gps. in crosslinked chloromethylated styrene polymer to COOH and amination of the remaining chloromethyl gps.

Removal of heavy metal ions from dilute effluen
fication and preparation of pharmaceuticals, and wa
salination by the ''Sirotherm''(RTM) process.

The resins are of homogeneous structure, with
acid and basic gps. attached to the same polymer fr
work, giving high effeciency for metal ion removal
high capacity. 2.3.78 as 203928(11pp195)

BANE- D15 53025T/33 =DS 2
Elimination of inustrial wastes - by aerobic biological degrad
BANEXI BANQUE EXPAN (BAN -) 19.02.71-FR-005772
*(19.07.79) *BE-779-151 +C09k-03/32*

Compsn. for elimination of hydrocarbon waste by a
tion and biological degradation comprises a mineral
bent and an oxidant, (10-40 wt%), such as Fe_2O_3, M
ZnO and/or an alkali peroxide. Compsn. may also
N cpds., (2-10 wt%), such as urea, or ammonium p
phate, nitrate or sulphate; fatty acid, (5-15 wt%); a
ential nutrients, (10-30 wt%), esp. maize liquors o
asses and malting residues.

Pref. adsorbents are $CaCO_3$, acidic $MgSiO_3$, nat
silica, kieselguhr or talc. 10.2.72 as 206324(3pp47)

FMCC D15 58276T/37 =DS 2
Waste water treatment - with hydrogen peroxide to s
sulphide and hydrogen sulphide
FMC CORP 22.02.71-US-117737
*E36 (19.07.79) *DT2207-920 C02c-05/04*

Process for elimination of sulphide ions from waste
from the biological processing of waste water compr
oxidn. by addn. of H_2O_2 (4-10 fold stoichiometric ex
The H_2O_2 level in the waste water is kept at 1-2 fold
chiometric excess to prevent subsequent redn. back
sulphide, and air or gases contg. O_2 are blown thro
effluent to reduce the H_2O_2 level to 0.25 - 1 fold exc
19.2.72 as 207920(7pp47)

BUCM D15 41268W/25 =DS 2
Effluent aerator-circulator - for removal of odou
microorganisms from aqueous liquids contg. organic solids
BUCHERGUYER MASCH 06.12.73-CH-017102
*+P34 (19.07.79) *DT2455-387 C02c-01/02 C02c-01/06*

A device for the circulation and aeration of liquids,
organic substances, for use e.g. in the pasteurisati
liquid manure, consists of a covered tank with an im
on top which has aeration passages between its blade
impeller is mounted like that of a centrifugal pump i
spirel casing with a suction opening below fluid level
upper third of the tank, turned towards the fluid leve
delivery opening is flanged to a pipe which terminates
lower third of the tank. Aeration tubes are inserted
ally between the impeller blades.

This results in a speeded-up intimate mixing of fl
and air. 22.11.74 as 455387(5pp39)

WHEE D15 43671X/23 =DS 26
Multiple hearth furnace operation control - low temp. gases
controllably recirculated from drying zone to combustion zone
WHEELABRATOR INCINE (RUST-) 03.06.75-US-583423
*J09 M28 Q73 Q77 (19.07.79) *US3958-920 F23g-07*

A multideck incinerator for the combustion of aq. wa
prods. such as sludge from the sewage treatment co
of a drying zone, combustion zone and cooling zone,
a controlled vapour and low temp. gas return from t
drying to the combustion zone. A temp. probe contr
this return rate to keep the combustion temp. consta
Sec. air is admitted through an oxygen probe which
tains a pre-set oxygen content in the return pipe.

This ensured a complete combustion without ther
overload and with a min. fuel consumption. 3.6.76 a
625055(9pp39)

J/ D15 08272B/05 =DS 2733-139

**ogical sewage treatment - in final clarification basin subdivided
ght funnels inside aeration basin**

ANJES M 22.07.77-DT-733139 (00.00.73-DT-349218)
*(19.07.79) *DT2733-139 C02c-01/06*

Parent PAtent describes an annular activated sludge
in with a concentric reclarification basin for the biol-
cal purification of sewage. In this addn. the reclarifi-
on section is composed of separate funnels which are
ely suspended near the outside wall of the activated
dge basin and entirely surrounded by water. The funn-
which are designed in the lower part as a truncated
amid or cone and in the upper part cubical or cylindri-
, have above the thickening zone a slurry entry slot
h an oblique guide plate.

This creates more effective means of retarding the
culating flow and of distributing the sludge more uni-
mly so that a high purification efficiency is maintained
7.77 as 733139 Add to 2349218(5pp39)

S D15 36903A/21 =DS 2749-969

**trolytic cell for halogen generation in circulating liquor - has
nber of spaced electrodes coated on one side allowing ionic
ential breakthrough**

DIAMOND SHAMROCK CORP 11.11.76-US-740870
*E36 J03 +P34 Q46 (19.07.79) *DT2749-969 C25b-01/24*

w cell for the electrolytic generation of halogens from
halides (esp. for use as biocidal agents), comprises a
tainer with a liq. partition system, having two terminal
ctrodes, a central electrode and one to thirty, (pref. 6-
plane parallel bipolar electrodes coated on the cath-
side with an electrocatalytically active, corrosion-
istant material to allow ion migration in one direction
, but not all connected to the power supply.

The parallel electrodes are sited ∼1.9mm apart; the
l anode surface is ∼11.6-14.2 dm^2; and the cell is op-
ted at 10-50V with an intermittent current density 0.3-
A/dm^2 with a dilute aq. halide soln., flow rate of ∼0.3-
m/s. 8.11.77 as 749969(9pp47)

N- ★ D15 54635B/30 ★DS 2802-780

**er desalination and purification - in stack with membranes
ying plates alternating with guide plates**

GES KERNEN SCHIFFBA 23.01.78-DT-802780
(19.07.79) C02b-01 C02c-05

device for water desalination and purification by re-
se osmosis and ultrafiltration, the stack of carrier
tes, which alternates with guide plates, is held together
tie rods along the periphery. A central through opening
eives the raw water. The carrier plates contact each
er with a thick edge outside the guide plate. Axial bores
hin the flanges to act as discharge for the permeate
nmunicate through gaps in the flanges with the filter
ers of the membranes.

This device has low manufacturing costs and is easy to
emble. Very few different parts are needed and the
mbranes are not exposed to the stack compression force
only to the raw water pressure. 23.1.78 as 802780(9pp)

HR- ★ D15 54637B/30 ★DS 2807-574

**screen cleaning rake used in waste water treatment - with one
-centre arm supported in central guide rails**

SCHREIBER-KLARANLAG 22.02.78-DT-807574 (00.00.76-DT-
608774)
Q42 (19.07.79) C02c-01/22 E02b-05/08 E03f-05/14

e Parent Patent described a rake mechanism for the
aning of a bar screen, for example in a waste water
annel. In this add. the two-arm rake design has now
en changed to a one-arm design which is arranged off-
ntre relative to the water channel. The support roller
d its guide are, however, arranged along the centre
e of the channel.

This simplifies the manufacture and assembly of the
ke and ensures a quieter run. The second guide rails
d the second endless lifting chain have also been saved.
.2.78 as 807574 Add to 2608774(8pp39)

VEKE- ★ D15 54644B/30 ★DS 2826-132

Sludge conditioning system - with heat exchanger stages and inert gas concentration control

VER KESSELWERKE AG 15.06.78-DT-826132
(19.07.79) C02c-03

Sludge, esp. sludge from sewage treatment plant, is conditioned continuously at high temp. and pressure by raising its pressure in several stages. The conditioned sludge pressure is reduced as it passes in reverse order through the same stages and heats the raw sludge by the vapours, released by the pressure relief, to saturation temp. The inert concn. is measured for each stage and is used as the controlled variable for the gas discharge.

This simplifies the control system and minimizes the heat losses. 15.6.78 as 826132(5pp39)

KERN- ★ D15 54756B/30 ★DT 2801-724

Removing fluoride from water - by pptn. with calcium then adsorption on aluminium hydroxide

GES KERNEN SCHIFFBA 16.01.78-DT-801724
E36 (19.07.79) C02b-01/23

Fluoride is removed from water by first adding a Ca salt to prod. a finely-divided ppte. of CaF_2, and then adding an Al salt so that the ppte. is adsorbed onto the $Al(OH)_3$ flocs formed. These flocs are then removed from the soln. by flotation or filtration.

Pref. additives are $CaCl_2$ or $Ca(HCO_3)_2$. esp. to provide as Ca 2-4 wt. times the concn. of F ions, and polymeric Al chloride. Esp. the treated soln. is satd. with air under excess pressure, then the pressure released so that the flocs of $Al(OH)_3$ are carried to the surface as a thin layer by air bubbles.

Reduced requirement for chemicals is obtd. c.f. use of Al sulphate only. The flocs can be sepd. by flotation as well as sedimentation. 16.1.78 as 801724 (9pp1251)

BISA/ ★ D15 54788B/30 ★DT 2802-012

Pollution control with degradable foam - contg. treating agent for degrading pollutants

BISA K 18.01.78-DT-802012
H03 P43 (19.07.79) B08b-03/08 C02b-09/02 C09k-03/32

Removal of pollutants (esp. mineral oils) from contaminated surfaces is carried out using a treating agent (esp. a combination of oil-degrading microorganisms and a nutrient medium) incorporated in a quasi-stable foam in the form of a multiphase system. The foam is made of a foamable material which is inert w.r.t. the treating agent and is chemically, physicochemically, biochemically or biologically degradable.

The process can be used to remove oil spills from water, land and other surfaces, or to clean out the insides of tanks, etc. The foam ensures a long contact time between the treating agent and the contaminated surface, protects the treating agent (esp. microorganisms) from the atmos., and can adapt itself to any surface shape. 18.1.78 as 802012 (66pp367)

PASE ★ D15 54792B/30 ★DT 2802-066

Chemical-mechanical water treatment process - by flocculation and settling, including concn. of slurry before recycle

PASSAVANTW MICHELBACHER 18.01.78-DT-802066
(19.07.79) C02b-01/20 C02c-01/18

Chemical-mechanical processing/purificn. of water comprises (a) mixing with a flocculating or pptg. agent; (b) mixing in contact slurry; (c) mixing in ≥1 flocculation auxiliary while applying stirring energy at 720W per cu.m. of reactor vol. and limiting contact time to ≯5 min; (d) reacting to form sedimentable particles, etc.; and (e) sepg. flocculate etc. from pure water.

In the improvement, the flocculate etc. is sepd. using inclined plates and/or tubular sedimentors; and at least the part of the sludge to be recycled is conc. to >1, pref. 3-8% solids content (wt.% after drying at 105°C) and (c) a part of the conc. sludge is recycled as contact slurry and opt. also to zone (c).

Used for treatment of all types of ground, surface and waste water. 18.1.78 as 802066 (15pp1251)

FARH D15 52792B/29 =EP ---3-119
Flocculating agent for water treatment - comprises granulated mixt. of ferric sulphate and lime
HOECHST AG 11.01.78-DT-801034
*(25.07.79) *DT2801-034 C02c-05/02 +C02b-01/20*
D/S: E(BE, CH, DT, IT, NL, SW).

Flocculating agent for purifying waste water (esp. domestic) is a granulated mixt. of $Fe_2(SO_4)_3$ (I) and lime (II). Pref. the (II):(I) wt. ratio is 1:2-10, esp. 1:4-5 and (II) may be quicklime, slaked lime or $Ca(OH)_2$ remaining after generation of gas from Ca carbide.

Used for removal of colloidal or dissolved organic matter and dissolved phosphates. The granules are easy to distribute in the water do not change its pH and their effect does not depend on pH.
8.1.79 as 100041 (9pp1251).
(G) ISR:DS-880877; FR2129035; DT2527987.

ABAD/ ★ D15 54961B/30 ★FR 2406-608
Prepn. of water for haemodialysis for e.g. renal haemodialysis - by fixing acetate ions on exchange resin for water insol. ions and passing water over resin
ABADIE A 21.10.77-FR-032009
A91 J01 P34 (22.06.79) A61m-01/03 B01d-13 C02b-01/56

Water suitable for haemodialysis is prepd. by fixing, on ⩾ 1 exchange resin for water-insol. ions, acetate ions and leading drinking water across a bed of the resin to substitute for the acetate ions the anions contained in the initial drinking water.

Solns. for renal haemodialysis have generally been prepd. from drinking water, if necessary after softening, by reverse osmosis, distn. or demineralisation by ion-exchange. The invention enables a non-corrosive haemodialysis water to be obtd. with a salinity based exclusively on tolerated ions. The process also enables the base prods. to be regenerated. 21.10.77 as 032009 (13pp1329).

RHON ★ D15 54962B/30 ★FR 2406-610
Treating waste water contg. oxidisable material, esp. sulphur derivs. - by continuous single-stage process comprising simultaneous atomisation and oxidation in oxidising gas vortex
RHONE-POULENC INDUSTRIES 20.10.77-FR-031554
(22.06.79) C02c-05/04

A method of treating waste waters contg. cpds. partic. sulphur derivs., e.g. sulphides, which can lead to solid wastes by oxidation by an oxidising gas, comprises atomising the waste waters and oxidising them at high temps. at the same time. The waste waters are pref. fed along the axis of symmetry of a vortex formed by an oxidising gaseous phase.

The amount of movement of the gas phase relative to the axial phase is pref. such that the vortex flow induces disintegration and dispersion of the axial phase, absorbs it into the flow and brings about its treatment, the temp. of the gases being 900 - 1200°C. The waste waters are pref. introduced at 0.03 - 3 m/s and the amt. of movement of the vortex flow is 100 - 10000 times that of the axial phase.

Problems associated with long processes in several stages incorporating physical and chemical treatments are avoided. 20.10.77 as 031554 (6pp1192).

PULL D15 27474Y/16 =GB 1549-331
Reducing phenol content of waste water of phenol prodn. from cumene - by extn. with waste water side stream
PULLMAN INC 02.10.75-US-618877
*A41 E14 (25.07.79) *DT2641-431 C07c-37/34*

The BOD and phenol content of aq. waste contaminated with organic materials from the prodn. of phenol from cumene is reduced by a liq.-liq. extraction.

Process comprises fractionating a mixt. of the organic waste stream boiling between alpha-methyl styrene and acetone and the rich solvent stream from the extn. of the aq. waste; recovering a side stream lean solvent cut contg ethyl benzene and cumene, an overhead stream contg. light organic materials, and a bottom stream contg. heavy organic materials, esp. phenol; and contacting aq. waste in an extraction system with the lean solvent cut.

Means of reducing B.O.D. is derived from the b
carbon waste stream, thus there is no net material
to the process for producing the solvent needed. 29
as 040359 (5pp931).

AKIT ★ D15 55246B/30 ★J5
Arsenic removal from aq. soln. - by redn. at acid pH in pre
ferrous cpd. and copper or copper cpd.
AKITA SEIREN KK 25.11.77-JA-141395
E32 M25 (14.06.79) C02c-05/02 C22b-30/04

Process for removing arsenic from aq. soln. com
adjusting the pH of the soln. <6, and forming a ppt
adding reductant in the presence of Fe^{2+} and ionic
allic copper.

The amt. of arsenic in the residue produced, if
conditions are selected, reaches 50-60%, and it is
ed that 70% of the arsenic will be as the element. A
ingly it is stable and may be readily sepd. and rec

In an example, a soln. contg. 70.0 Zn, 25.0 Fe,
Cd and 0.5 As (all g/l.) was used. To 2 l. of this s
were added 0.5 l./g. of copper sulphate and it was
80°C, pH 4.5, while zinc powder was added and re
was effected for 60 min. After 30 min., the concn.
arsenic in the reaction soln. became zero. 25.11.7
141395 (7pp96).

SUDA/ ★ D15 55252B/30 ★J5
Appts. for electrolytically decomposing water - with magn
sepn. system
SUDA N 26.11.77-JA-141816
E36 J03 (14.06.79) C02b-01/82

Appts. comprises (a) an electrolytic liq. bath, (b) a
of spaced electrode plates, and (c) a magnet assem
comprising a number of spaced magnet pieces hung
top suspension plate and disposed intermediate betw
the spaced electrode plates.

The ions produced by electrolytic decompsn. of
are sepd. according to their polarities of electrosta
charge and collected in the separate compartments
magnetic attractive forces provided by the magnet a
bly. By using the magnet assembly in combination
conventional semipermeable membrane used for ion
the ions may be collected in a pure state. 26.11.77
141816 (2pp47).

ECKA- ★ D15 55254B/30 ★J5 4
Reverse osmosis membrane with improved strength and
permeability - prepd. from cellulose acetate and di:benz
sorbitol
EC KAGAKU KOGYO KK 25.11.77-JA-140605
A88 E19 J01 (A11) (14.06.79) B01d-13

Reverse osmosis membrane is made by spreading a
consisting of cellulose acetate, dimethylformaldehyd
mamide, acetone and dibenzylidenesorbitol on a sm
plate, allowing some solvent to evaporate, treating
water to remove solvent, allowing the film consistin
cellulose acetate and benzylidenesorbitol to coagulat
the plate, and removing the resulting coagulated film
the plate by removing residual swelling agent by trea
with hot water.

This reverse osmosis membrane has excellent st
and water permeability, compared with known rever
mosis membranes not contg. dibenzylidenesorbitol.

In an example, a soln. comprising 24.875% cellul
acetate, 0.125% benzylidenesorbitol, 45% acetone,
formamide and 20% DMF was spread in a thickness
m. over a glass plate at 25°C and allows to stand fo
and a part of acetone was evapd. The resulting film
glass plate was soaked in ice-water for 1 hr. to form
reverse osmosis membrane. 25.11.77 as 140605 (4p

SASA- ★ D15 55255B/30 ★J5 4
Sea water desalination including osmotic filtration - w
preceded by detection and removal of residual chlorine
would cause failure of the polyamide osmotic membrane
SASAKURA KIKAI SEIS 25.11.77-JA-141760
A88 J01 (14.06.79) B01d-13

In producing fresh water from sea water, an aggreg
agent, i.e. $FeCl_3$ soln., and HOCl are added, and th
water is conducted to a settling tank

water is sterilised by the action of chlorine.
is then added for reduction of the residual Cl,
water is introduced to an osmotic filtration unit,
means for measuring the redox potential of the liq-
rovided in the line from the desalting station to
notic unit to detect the presence of chlorine in the
efore it enters the osmotic unit.
sidual chlorine is present in the liquid entering
notic unit, it would cause failure in the polyamide
ane used in the osmotic unit. 25.11.77 as 141760
).

D15 55260B/30 ★J5 4074-295
ing nitric and hydrofluoric acids from metal-contg. solns. -
le extn. with neutral phosphate, with intermediate pptn. of
s hydroxide(s)
O KAGAKU SOCHI 24.11.77-JA-141232
(14.06.79) C01b-07/22 C01b-21/46

ery of HNO_3 and HF from their soln. contg. metals
med. The free acids are initially extracted with a
l phosphate solvent, then the liquid left after the
is neutralised with an alkali to remove the dissolved
salts as their hydroxides. An inorganic acid is then
to the mother liquor left after the removal of the
kides of the metals so that the acids may become
Then the acids are extracted from the mother liquor
he neutral phosphate solvent. Both extracts obtd.
pd. (split) with water.
ustrial waste such as waste water contg. HNO_3 and
n be treated economically, and almost all HNO_3 and
n be recovered, thus preventing environmental poll-
24.11.77 as 141232 (4pp55).

★ D15 55304B/30 ★J5 4074-841
in-oil emulsion of water-soluble vinyl polymer - using in the
n. a nonionic surfactant and a water-insol. organic cpd. with
p(s). which can form hydrogen-bond
NYO KK 28.11.77-JA-143136
F06 H01 (F09) (15.06.79) C08j-03/02 C08l-33

sion comprises 10-70 wt.% of (A) a water soluble
polymer, 10-40 wt.% of (B) water, 20-50 wt.% of (C)
rocarbon liq., 1-30 wt.% of (D) nonionic surfactant
HLB 7-13 and 0.1-10 wt.% of (E) a water insoluble
ic cpd. with ≥1 polar gp. which can form hydrogen
in the molecule and solubility in water <0.1%.
e emulsion is useful as waste water treating agent,
ener, antistatic agent, fibre treating agent, chemical
fg. paper, crude oil recovering agent, It has good
lity with passage of time. When it is dissolved in
, an aq. soln. with polymer concn. 0.01-10 wt.%, in
h hydrocarbon liq. is stably dispersed can be obtd.
.77 as 143136 (7pp57).

- ★ D15 55370B/30 ★J5 4075-157
ing water, esp. from suspended solids - using a silica sol with
-soluble metal salt, e.g. sodium, potassium, magnesium or
m chloride, sulphate or carbonate, etc.
KAI KAGAKU KOGYO 25.11.77-JA-141310
(15.06.79) B01d-21/ C02b-01/20 C02c-05/02*

lica sol obtd. by treating an aq. soln. of an alkali sili-
, e.g. sodium silicate with a H-type cation exchanger
n in order to remove the alkali metal content, is mix-
ith water-soluble metal salt(s) and its pH is regulated
-8, and then the silica sol is added to the water.
he method enables the process to be continuous and
ple, using simplified equipment. The pref. concn. of
in the silica sol is 10-40g/l. 25.11.77 as 141310
117).

★ D15 55371B/30 ★J5 4075-159
ing plating waste water contg. heavy metal, cyanide etc. - by
act with anion exchange resin to remove metal cyanogen
plex, contacting with cation exchange resin, etc.
URITA WATER IND KK 25.11.77-JA-140705
11 (15.06.79) C02c-05/08

ting waste water is contacted with a weak or medium
ic anion exchange resin to remove metal-cyanogen
nplex ions. The effluent from the first process is con-
ted with a strong acid cation exchange resin to remove
ions. The effluent from the second process is contacted
with OH-type strong basic anion exchange resin alone or a combination OH-type weak or medium basic anion exchange resin and OH-type strong basic anion exchange resin to remove cyanogen ions and other anions.

The ion exchange resin from the first process is contacted with an alkali and a cyanide to elute metal-cyanogen complex ions and then regenerated by a mineral acid. The alkali and cyanide-contg. soln. used for regenerating the ion exchange resin is the regenerating waste water from the regeneration of the ion exchange resins used at the second and third processes.

This method is capable of removing dissolved ions from plating waste water while preventing the deposition of metal-cyanogen complexes. 25.11.77 as 140705 (5pp117)

HAYA/ ★ D15 55372B/30 ★J5 4075-160
Treating organic material-contg., bad odour waste water - with a fermented mixt. of fine brown coal powder, waste grain powder, water and activated sludge
HAYASHI K 28.11.77-JA-141593
C04 (15.06.79) C02c-01/02 C02c-05/10

In treating the waste water, including human waste and waste water discharged from food processing factories, etc. a moist mixt. obtd. by mixing fine brown coal powder, waste grain powder, water and activated sludge obtd. from the aeration tank in a food-mfg. factory waste water treatment plant is fermented at an internal fermentation temp. of >50°C under a solid phase culture condition to give the culture, which is mixed with the moist mixt. to effect refermentation under the same conditions to mfr. a fermented prod. The fermented prod. is then mixed with water to make a paste which is added to waste water to be treated.

Method is effectively and simply treats waste water and also completely deodorises excess sludge which can be used as fertiliser. 28.11.77 as 141593 (6pp117).

TAKG ★ D15 55373B/30 ★J5 4075-161
Treating waste water contg. organic material - by feeding to tanks arranged in series and adding hydrogen peroxide and ferrous sulphate
TAKI KAGAKU KK 25.11.77-JA-141730
(15.06.79) C02c-05/04

The waste water is introduced in turn, into a series of >3 treatment tanks arranged in series to each of which is added hydrogen peroxide and ferrous sulphate so that the H_2O_2/CODMn molar ratio in each tank is 0.02-1.5 (where CODMn is CODMn concn. in mole in waste water) and also the $FeSO_4/H_2O_2$ molar ratio is 0.1-0.4, and then the flocs and ppte. formed are sepd. and dehydrated, while the supernatant liquor is released to the outside.

Method reduces the amt. of chemicals (hydrogen peroxide and ferrous sulphate) needed, cf. cases in which the chemicals are added to one or two treatment tanks at a time, and also greatly shortens the treatment time.

Method is used to treat sewage, human waste, fibre-processing waste water, dyeing waste water, etc. 25.11.77 as 141730 (3pp117).

ORIO- ★ D15 55374B/30 ★J5 4075-162
Treatment of living waste water - by adding mixt. of carbon, obtd. from pulp mill sludge, and clay to water after aerobic and anaerobic treatments
ORION KIKAI KOGYO 28.11.77-JA-142518
(15.06.79) B01d-15 C02c-05/02

Method comprises adding a mixt. of PS carbon (obtd. by dehydrating, drying and baking at 1000-1100°C pulp mill sludge) with clay in a proportion of 60-50% PS carbon and 40-50% clay to the third stage of the living waste water treatment stages following the first stage in which waste water is treated under aerobic conditions and the second stage in which waste water is treated under anaerobic conditions.

The treatment of the waste water can be carried out very effectively by using very cheap PS carbon. The pulp mill sludge is effectively utilised, and the occurrence of pollution due to PCB is eliminated because PCB is decomposed by heating. 28.11.77 as 142518 (3pp117).

SUMI- ★ D15 55375B/30 ★J5 4075-163
Treating organic waste water with activated sludge - adding 2-chloro: 6-tri-chloromethyl-pyridine as nitrifying inhibitor
SUMIKIN KAKO KK 28.11.77-JA-143141
(15.06.79) C02c-01/06

Organic waste water, e.g. sewage, human wastes, nitrile mfg. waste water or waste water contg. ammonia, ammonium salts, organic nitrogen cpds. is treated by using an activated sludge, but not nitrification, 2-chloro-6-trichloromethylpyridine (I) as a nitrifying inhibitor is added with an emulsifier to waste water, aeration tank, sedimentation basin, or return sludge.

Toxicant action on BOD bacteria can be eliminated and thus the lowering of BOD treatment efficiency can be avoided. The COD and BOD contents in activated sludge treatment liquor can be reduced because the formation of NO_2^- is prevented. Trouble such as the floating of sludge, etc., can be avoided. The treating efficiency can be increased. 28.11.77 as 143141 (4pp117).

KOBM ★ D15 55413B/30 ★J5 4075-444
Preventing corrosion of sea water desalination devices - of multistage flash type, by providing two electrodes, adding the sea water and connecting to DC source
KOBE STEEL KK 28.11.77-JA-143127
J01 M14 (16.06.79) B01d-03/06 C23f-13

The device comprises heat conductive pipes (for guiding the sea water into a heat recovery section, heat radiator and heater) made of Ti or Ti alloy, and pipe plates made of Cu alloy.

The method uses the following steps. An insoluble electrode and reference electrode (both being not electrically shorted with the pipes and pipe plates) are disposed at a section of the device, contacted with the sea water, and connected to a d-c electric source so as to act as anode and cathode, respectively, while the device is operated while keeping the cathode potential at -0.5 to -0.66V. 28.11.77 as 143127 (6pp26).

JAOR ★ D15 55427B/30 ★J5 4075-477
Pure water prodn. using weakly acidic cationic exchange resin - where regenerating waste liquor of strongly acidic resin is passed through weakly acidic resin to convert it to H from
JAPAN ORGANO KK 29.11.77-JA-142265
J01 (16.06.79) B01j-01/09 C02b-01/40

Pure water is produced by passing water to be purified in succession through a weakly acidic cation exchange resin and a strongly acidic cation exchange resin, and passing the outflowed water through a weakly basic anion exchange resin and a strongly basic anion exchanger resin, or through a composite bed of the weakly and strongly basic anion exchange resins.

The improvement comprises passing the regenerating waste liquor of the strongly acidic cation exchange resin through the weakly acidic cation exchange resin to convert to H-form in its regeneration, passing the regenerating waste liquor of the anion exchange resin through the H-type weakly acidic cation exchange resin to carry-out neutralisation of alkali in the regenerating waste liquor by converting a portion of the H-type into alkali metal form, and passing the water to be purified through the partially alkali metal formed H-type weakly acidic cation exchange resin, so that the regenerating agent ratio becomes closer to the theoretical value.

Running costs are lowered, the regenerating efficiency is excellent and the amt. of the resin to be used is lowered, etc. 29.11.77 as 142265 (5pp34).

JAOR ★ D15 55428B/30 ★J5 4075-478
Ion exchange treatment - including transfer of only the ion exchange resin higher than intermediate part of the tower to a back-washing tower
JAPAN ORGANO KK 29.11.77-JA-142266
J01 (16.06.79) B01j-01/09

In the back-washing of an ion exchange resin layer packed in an ion exchange tower in which water to be treated passes downwardly through the ion exchange resin layer, and a regenerating agent-contg. soln. passes upwards, the improvement comprising only transferring the ion exchange tower or higher than an opening provided in the up of the intermediate part, to a back-washing tower form of slurry to carry-out the back-washing.

The back-washed ion exchange resin is introdu a space of the ion exchange tower through the oper while discharging upwardly water accompanied wi exchange resin from drainage means provided at t part of the tower. The regenerating agent-contg. then passed upwards through the ion exchange resi followed by passing downward passage of the wate treated, so that the ion exchange resin layer is no ed during the regeneration. The arrangement of io ion exchange resin layer at the end of the water pa not disturbed by the back-washing treatment. 29.1 142266 (7pp34).

MITQ ★ D15 55459B/30 ★J5
Treating sewage sludge, night soil etc. - by sepg. into c supernatant liquors and subjecting both liquors to separate thawing and dehydrating
MITSUBISHI ELECTRIC CORP 29.11.77-JA-143471
(18.06.79) C02c-03

Organic sludge is first sepd. into conc. liquor (I) supernatent liquor (II). (I) is then subjected to a fr thawing treatment and subsequently is dehydrated arate dehydrated cake and water. (II) is admixed w chemical and then subjected to a freezing-thawing ment followed by dehydration.

The amt. of the chemical, e.g. $FeCl_3$ to be use duced to approx. 1/3. and the moisture content of hydrated cake obtd. from both (I) and (II) is 69.4%, ing high dehydration efficiency. 29.11.77 as 14347 (3pp117).

KURK ★ D15 55460B/30 ★J5
Purifying waste water contg. metal ions and organics sodium-type weak acid cation exchange resin and activate for adsorption
KURITA WATER IND KK 29.11.77-JA-143109
(18.06.79) C02b-01/14 C02c-05/08

The appts. comprises a cation exchange resin towe ed with a Na-type weak acid cation exchange resin; activated carbon adsorption tower connected to an ed carbon regeneration appts. with a heating furna feeder for supplying the waste water to the cation e resin tower, and a feeder for supplying the treated to the activated carbon adsorption tower.

The method removes metal ions which clog the a carbon adsorption tower and the cation exchange re packed tower, and assures the long lasting stable a ed carbon treatment. The process is used for treat water contg. esp. heavy metals, and organics, e.g pigment and dye prodn. and treatment of sewage an an waste. 29.11.77 as 143109 (4pp117).

SUMO ★ D15 55461B/30 ★J5
Filtering oil-contg. waste water - while maintaining a chlorine of filter by addn. of sodium hypochlorite, chl bleaching powder
SUMITOMO CHEMICAL KK 29.11.77-JA-143562
J01 (18.06.79) C02c-05

Waste water contg. mineral oils or fat oils is filter rough a filter packed with a granular filter medium sand, anthracite, ceramic granules, etc. while inj substance selected from sodium hypochlorite, chlo bleaching powder into the inlet or a portion up from let of the filter in order to keep >0.5g/l. available at the outlet of the filter during the filtration.

Method completely prevents fouling of the filter and also the formation of oil balls as well as compl moving balls already formed during the filtration. needs for washing with detergents, exchanging the medium with new filter medium, etc. is obviated. 29.11.77 as 143562 (3pp117).

MITS- ★ D15 55462B/30 ★J5
Treating night soil with photosynthetic bacteria - with redu of oxygen and without sterilisation of saprophyte
MITSUBISHI JUSHI EN 30.11.77-JA-143650

soil ground to approx. 30 mesh size is passed to a
tank to subject it to about 24 hr. aeration to decom-
high molecular substances. The night soil is then in-
ced into a photosynthetic bacteria treatment tank
e oxygen is supplied at 2-20g. O_2/m^3. hr. without
lisation of saprophite. The BOD of approx. 10,000
is thus reduced to 500ppm. The night soil thus treat-
passed to a sedimentation tank to separate the ppte.,
wed by secondary treatment including any one of act-
d sludge treatment, contact oxidation and sprinkling
method, or a combination of these methods.
lethod is easy and inexpensive and requires less oxy-
for BOD removal. 30.11.77 as 143650 (4pp117).

★ D15 55463B/30 ★J5 4075-864
gical treatment of waste water contg. dithionic acid - using
aeration tank contg. activated sludge to decompose the acid
ptn. of solids formed
ITSUBISHI HEAVY IND KK 29.11.77-JA-142273
36 J01 (18.06.79) C02c-01/06
atment of waste water contg. dithionic acid, e.g.,
te water discharged from wet-type desulphurisation
t, is effected in, a biological reaction tank such as
ation tank in the presence of activated sludge with
ring to decompose the dithionic acid present, the treat
waste water is sent to a sedimentation tank to separate
e. and supernatant liquor, and the ppte. as activated
dge is sent back to the biological reaction tank and also
floating substances present in the supernatant liquor
after being collected sent back to the biological reac-
tank.
Method provides highly stable sludge retention and
atment capability without causing the lowering of bio-
ical treating efficiency and also produces very clear
ated water. 29.11.77 as 142273 (5pp117).

E ★ D15 55548B/30 ★J5 4076-481
noval of heavy metals from waste water - by pptn. of ferrite by
n. of ferrous salt, neutralisation with alkali cpd. and oxidn.
NIPPON ELECTRIC KK 30.11.77-JA-144111
J01 M25 (19.06.79) C02c-05/02
emoval of heavy metals (I) from waste water (II), com-
ises (1) pptn. of ferrite (III) by addn. of ferrous salt (IV),
utralisation with alkali cpd. and oxidn., (2) addn. of (IV)
wt. $>$ 1/50 of the wt. used in (1) and (3) oxidn. The step
) and (3) should be carried out just after the step (1).
(III) recovered can be used as magnetic material in in-
strial fields. Elution of (I) from (III) is prevented. The
ason for suppression of (I)-elution from (III) obtd. is
at the surface of (III) is covered with magnetite in the
ep (2). 30.11.77 as 144111 (3pp42).

AI ★ D15 55549B/30 ★J5 4076-482
hydration of organic waste sludge - by flotation-concn. under
essure by adding organic polymer flocculant, followed by
hydration
EBARA INFILCO KK 30.11.77-JA-143380
A97 (19.06.79) C02c-03
lethod comprises (a) flotation concn. of the sludge (I) by
pplying high pressure with the addn. of $>$0.3% organic
olymer flocculant (II) based on solid in (I) and (b) dehydra-
on of the conc. sludge.
As (II), cationic organic polymers, such as methacryl-
te, acrylamide copolymer, polyethyleneimine etc. are
sed. 30.11.77 as 143380 (5pp42).

ITF ★ D15 55550B/30 ★J5 4076-483
udge treatment system - including aggregation, concentration,
nd addn. of setting agent and hardening agent
HITACHI SHIPBLD ENGG KK 30.11.77-JA-144555
(19.06.79) B01j-01 C02c-03
sludge is introduced from a sludge tank into an aggreg-
ting agent agitating device by a pump and the aggregating
gent is mixed with the sludge therein. The aggregated
ludge is concentrated in a concentrator, and a setting
gent and a hardening agent are injected into the conc.
ludge in chemical injecting equipment.
The conc. sludge and the setting agent and hardening
gent are agitated and mixed in an agitator to set and hard-
n the sludge. The mixed sludge is transferred from a
pump through a pipe line into dumps.

A large amt. of sludge may be treated in a relatively small plant while insulated from the atmos. to reuse as fillings in reclaimed lands. The sludge may be hardened with chemicals to prevent generation of secondary pollution. 30.11.77 as 144555 (4pp35).

DAID D15 36746X/20 = J7 9017-584

Rapid complete removal of scale and slime from water systems - using firstly acid with opt chelating agent then sodium percarbonate or peroxide

DAIDO KOGYO KK (DAID-) 27.09.74-JA-111310

*E19 J08 (E36) (30.06.79) *J51037-870 C02b-05*

Scale and slime are treated with inorganic acid (hydrochloric acid, phosphoric acid, sulphuric acid) or organic acid (sulphamic acid, citric acid, oxalic acid). Chelating agent may be used as assistant. Next, sodium percarbonate, sodium peroxide or a soln. in which sodium percarbonate is dissolved in stabilised chlorine dioxide water, is added to the liq. used in the first process without removal from the system.

Scale and slime which could not be removed in the first process can be removed by the generated carbon dioxide or oxygen. The method is suitable for heat-exchangers, pipes, etc. 27.9.74 as 111310 C02b-5/00 (30.6.79) DAIDO KOGYO KK (4pp)(J51037870)

MITB D15 00807B/01 = J7 9017-585

Sepg. waste water from liq. of lower specific gravity - by treating with sepg. solvent in a column

MITSUI SHIPBUILDING ENGG 26.04.77-JA-047344

*(30.06.79) *J53132-472 B01d-11/04 +C02c-05/02*

A device is claimed for extracting and sepg. a desired component from waste water such as phenol from drain water from a tanker. The object is to quickly separate the desired component having a lower specific weight than the waste water itself.

The novelty is that a closed column is partitioned by horizontal plates into cells, which communicate in series with each other through passages formed in one side area of the column, while in the opposite side area extending passing through the plates a stirring space is formed, in which the water is circulated. The waste water is fed into the column through its upper inlet, while a sepg. solvent is fed into the column through its lower inlet. 26.4.77 as 047344 B01d-11/04; C02c-5/02 (30.6.79) MITSUI SHIPBUILDING ENGG (3pp)(J53132472)

TOKU D15 59896Y/34 = J7 9017-587

Separation of acids by diffusion dialysis - using ion exchange membrane prepd. from high molecular wt. anion exchange material and nonpolymerisable cpd.

TOKUYAMA SODA KK 29.12.75-JA-156265

*A91 J01 (30.06.79) *J52081-084 B01d-13*

Acids are sepd. by a diffusion dialysis with an ion-exchange membrane produced by reacting a membrane-like high molecular substance with reactive anion exchange gps. on functional gps. convertible to anion exchange gps. on its surface or outer layer with non-polymerisable cpds. having gps. capable of reacting with the anion exchange or function gps. contained in the high molecular substance.

Membranes, based on vinyl pyridines, allylamines or vinyl benzyl halides, ally halides, etc. are reacted to $<$ 0.02 mm. of depth from the surface with dibromoethane, glycerine and epichlorohydrin or N, N' dimethylethylene diamine, methyl amine and maleic acid, are treated with alkyl halides, dialkyl sulphuric acid etc. so as to convert the inner functional gps. to anion exchange gps.

The process can separate acids selectively from e.g salts in solns. 29.12.75 as 156265 B01d-13/00 (30.6.79) TOKUYAMA SODA KK (5pp)(J52081084)

NIKN D15 31107A/17 = J7 9017-589

Electrodialyser for concn. and desalination of sea water - in which the concn. ratio of cations to anions can be selected as desired

NIPPON KOKAN KK 30.08.76-JA-102711

*E36 J03 (30.06.79) *J53028-574 B01d-13/02*

Cells passing diluting and concentrating liquids are alternately arranged to concentrate the concentrating liquid. The cells are grouped into two gps. (A) and (B). Group (A) at the anode side and Group (B) at the cathode.

In Group (A), each cell for passing a diluting liquid has two ion exchange membranes; one is anion exchange membrane at the cathode side and the cation exchange membrane at the anode side. In Group (B), each cell for passing the diluting liquid has two anion exchange membranes at both sides. If the number of cells is changed in each gp the concn. ratio can be changed. 30.8.76 as 102711 B 01d-13/02 (30.6.79) NIPPON KOKAN KK (3pp)(J53028574)

GOSE- D15 11166B/06 =J7 9017-593

Oil sepn. from water - by adding hydration swelling synthetic mica which can be regenerated

GOSEI KAGAKU KENYU 00.00.77-JA-145842 (22.05.75-JA-061601)

*J01 (30.06.79) *J53149-883 B01d-15 C02b-09/02 C02c-05/02*

Oil is sepd. from a surfactant contg. emulsified oil-water mixt. by adding a hydration swelling synthetic inorganic layered structure, e.g. sodium teniolite (Na, $Mg_2Li(Si_4O_{10})F_2$), lithium teniolite ($LiMg_2(Si_4O_{10})F_2$), calcium teniolite ($Ca1/2MgLi(Si_4O_{10})F_2$), sodium tetrasilicic mica ($NaMg_21/2(Si_4O_{10})F_2$), sodium hectorite Na1/3 $Mg_223Li1/3\ (Si_4O_{10})F_2$) and lithium hectorite ($Li1/3Mg_22/3Li1/3\ (Si_4O_{10})F_2$)etc.

Extn. of adsorbed oil component and the reproduction of the layered structure are possible, e.g. by immersing hydrophobic coagulated material of the oil-adsorbed layer-ed structure in a solvent to extract the oil component. 22.5.75 as 145842/77 Div. ex 61601/75 B01d-15/00;C02b-9/02;C02c-5/02 (30.6.79) GOSEI KAGAKU KENKYU (3pp)(J53149883)

THOM- D15 25870W/16 =J7 9017-598

Neutralising environmentally harmful alkali metal sulphites - by conversion to corresp. carbonates or hydroxides

IND CHEM THOMA GMBH 05.10.73-DT-350191

*E34 (E14) (30.06.79) *BE-820-667 C01b-17/50 C01d-01/22 C01d-07/18 C07c-37/04*

A soln. of alkali metal sulphites formed in the reaction of aromatic sulphonic acids and alkali metal hydroxides is treated with a suitable metal halide, e.g. $ZnCl_2$, at 25-30°C to give the corresp. insol. metal sulphite which is sepd. by pptn. Contaminating sulphates may be subsequently removed by pptn. with $CaCl_2$ or $BaCl_2$. The pptd. metal sulphite is thermally decomposed (at e.g. 320°C) to the metal oxide and SO_2 or SO_3.

The alkali metal halide which remains in soln. is treated typically according to the following process which resembles the solvay process for Na_2CO_3 and NaOH except that the NH_4Cl is heated with the metal oxide instead of CaO to regenerate the starting metal halide and NH_3. Either the alkali metal carbonate or hydroxide may be recovered. Toxic sulphites are converted to valuable or innocuous cpds. in a closed cycle reaction and without loss of $CaCl_2$. 4.10.74 as 114585 (clg.5.10.73-DT-350191) C01d-1/22, 7/18;C01b-17/50;C07c-37/04 (30.6.79) IND CHEM THOMA GMBH (5pp)(J50087982)

HOKU D15 00451T/01 =J7 9017-714

Purification of industrial effluents - by adsorption of heavy metals using selective adsorption agents

HOKUETSU CARBON IND (HOK -) 09.04.71-JA-021766

*A91 E31 J01 (A26 E32) (02.07.79) *DT2128-802 B01d-15 B01j-01/08 C02c-05/02*

The invention makes use of resinous materials for selective adsorption of heavy metals, the resinous material consisting of a condensation product of an aldehyde with at least one of thiourea, thiosemicarbazide or thiocarbazide, and opt. of a phenolic cpd. or an org. amine.

Formaldehyde, paraldehyde, acetaldehyde are suitable aldehydes. Phenol, hydroquinone, resorcinol are suitable phenolic cpds. Aniline, toluidine, are suitable amines. Used in purification of industrial effluents by recovery of heavy metals including precious or rare metals e.g. Au, Ag, Pt, Hg, Pd, Mn. 9.4.71 as 021766 B01j-1/08; C02c-5/02 (2.7.79) HOKUETSU CARBON IND. CO., LTD (4pp)(J47033971)

SUMO D15 04712V/03 =J7 9

Readily soluble aluminium hydroxide prepn - useful in
treatment as a coagulant

SUMITOMU KAGAKO KOG 14.01.72-JA-006343

*E33 (02.07.79) *J48075-497 +C01f-07/28*

Title cpd. is prepd. by heating an Al acid sulphite s
to raise the pH at a rate of > 0.03 min^{-1}. Basic po
minium salts is also prepd. from it.

In an example 2 kg red mud from Bayer Al proce
was treated with 20 l. H_2O and SO_2 until the pH was
and filtered to obtain 19.2 l. filtrate contg. 10.41%
16.82% Al_2O_3 and 15.4% SiO_2. This was heated to 7
give a pH 3.5 and filtered to obtain 16.2 l. filtrate
10.41% Na_2O and 14.85% Al_2O_3. This was heated to
the pH at a rate of 0.2 $min.^{-1}$ to obtain the hydroxi
3% Al_2O_3, 3.1 SO_2, 45.6% ign. loss, and SO_2/Al_2O_3
ratio 0.10 365 g prod. completely dissolve in 153.8
HCl when stirred for 30 mins. 478 g of basic polyalu
ium hydroxide was obtd. 14.1.72 as 006343 C01f-7/
(2.7.79) SUMITOMO KAGAKU KOGYO CO LTD. (4p
(J48075497)

NIKS ★ D15 55655B/30 ★J7 90

Ion exchange resin for purificn. of tap water - prepd. by r
formaldehyde with hydroquinone, m-phenylene-di:amin
phenol or resorcinol in the presence of hydrochloric acid

NIPPON KASEI KK 06.03.70-JA-019459

A91 (A21) (03.07.79) C02c-01/14 C08g-14/06

Hydroquinone gp. in the resin reduces Cl_2 contained
water to Cl^-, thereby eliminating unpleasant odour o
water; m-phenylenediamine gp. in the resin adsorbs
amt. of alkylbenzenesulphonate contained in tap wate
Satd. resin can be regenerated by alkali treatment.

In an example, 100g water are dissolved 54 g m-p
-enediamine, 11g phenol, 24g hydroquinone and 52 g
to the soln. 122g formalin is added and the soln. is s
ed until gel forms. The resin thus obtd. is heat-trea
for 3-6 hrs. at 100-110°C, and then treated ≥ 10 hr
with 5% aq. soln. of NaOH at 90°C, and washed throu
with hot water. The resin has reducing ability of 2.4
eq/g and ABS adsorption capacity of 10-20 mg/g. 6.3
as 019459 C08g-14/06, C02c-1/14 (3.7.79) NIPPON K
KK (3pp83)

SNLE D15 67712X/36 =J7 90

Electrolytic redn. of chromic acid - with iron electrode in prese
oxidising anions

STANLEY ELEC KK 17.01.75-JA-007596

*J03 (04.07.79) *J51083-081 C02c-05/12 +C25f-03*

The current when using the iron electrode as anode i
10 times larger than that when using it as cathode, a
number of alternations is 10-120 per sec. Liquor co
chromic acid and acidic ions, (such as, OH, IO_3^-, BC
ClO_3^-, NO_3^-) is electrolysed using the iron to produc
(II) or ferrous hydroxide which reduce the chromic a
trivalent chromium or chromic hydroxide. The resu
reduced liquor is adjusted to alkaline, and the ppte.
uced is sepd. to remove chromium. 17.1.75 as 0075
C02c-5/12; C25f-3/00 (4.7.79) STANLEY ELEC CO
(4pp)(J51083081)

SHOW- D15 73136X/39 =J7 90

Removal of boron fluoride cpds. from waste water - by ad
soluble aluminium and/or ferric salts

SHOWA KOJI KK 10.02.75-JA-016329

*A60 E36 M11 (04.07.79) *J51092-561 C02c-05/02*

The boron fluoride cpd. - contg. waste water is subje
to a treatment by adding thereto one or more of alum
sulphate, bromide, chloride including polyaluminium
-ide or a ferric salt, thereafter adding a water-solub
-minium cpd. such as aluminium sulphate and sodium
minate etc. to form a ppte. which is removed.

In a modification, a calcium salt such as $Ca(OH)_2$
$CaCO_3$ etc. is added prior to the addn. of the water-s
aluminium cpd. to make more easy selection of react
conditions and pH-adjustment and to obtain stable def
ination. Fluorine content of the waste water is decre
to < 10 mg/l., pref. < 5 mg/l. 10.2.75 as 016329
-5/02 (4.7.79) SHOWA KOJI KK (8pp)(J51092561)

★ D15 55736B/30 ★SU -626-791
nd effluent liquids filter - has sloping screens dividing its
to expanding chambers filled with two kinds of granular
aterial
MIN YU M 18.04.77-SU-475697
(15.08.78) B01d-23/10 C02c-01/18

for cleaning liquids, to remove mechanical impurit-
g. contained in water for use in populated areas and
stry, and for treating effluents, consists of a body
granular charge and devices for feeding, collecting
thdrawing the liquid. The sludge capacity of the
is increased and it s height dimension is reduced by
it with sloping screens, which divide the body into
panding chambers. One of these is filled with the
ar charge - the density of which is less than the den-
the liquid being processed and the other has a gran-
harge in which the density is greater than the density
liquid.
n Yu.M., Vostrov B.S., Lyamaev B.F., Bul. 37/
78 18.4.77 as 475697 (3pp29)

/ ★ D15 55737B/30 ★SU -626-792
vacuum filter for effluents treatment - uses air pressure
els to seal superheated steam chamber for drying and
amination of sediments
NGAIT L I 23.03.77-SU-465144
(D22) (15.08.78) B01d-33/06
ention of a leak of superheated steam from the cham-
here the layer of sediment is being dried on the sur -
of the revolving drum vacuum filter, is ensured by
se of air pressure channels at the periphery of the
chamber. The pressure in the air pressure chann-
maintained at a level higher by 0.01 atm. than the
ure of the super heated steam in the steam chamber.
rum of the vacuum filter partly immersed in the
h with the initial suspension moves the accumulated
nent into the hood of the steam chamber and works
factorily irrespectively of the thickness of the layer
diment. Thus it can be successfully used for decon-
ation of sediment. Thus it can be successfully used
econtamination of sediments filtered from effluents
ell as for sterilising precipitates in chemical and
inds.
ait L.I., Sumarokov M.V., Gavrilov M.I. et al
37/5.10.78 23.3.77 as 465144 (2pp135)

★ D15 55859B/30 ★SU -627-087
rial recirculating water treatment - includes specified acid
nent before cooling and fresh water addn., used in chlorine-
c soda plants
ARKOV POLY (CHWO= ABIN=) 21.03.77-SU-464272
(17.08.78) C02b-01/18 C02c-05/02
t water is recycled in Cl_2/caustic plants after acidif-
on, cooling, dilution with fresh water and discarding
eralised effluent from the system.
he amt. of waste water is reduced and more can be
in the recycle, thus rendering the process more
omic, by eliminating both phosphate and $CuSO_4$ addn.,
wed by acid treatment to pH 10-13.5.
ryushchenko F.K., Agaltsov A.M., Gorbachev A.K.
. Bul. 37/5.10.78 21.3.77 as 464272 (3pp835)

= ★ D15 55860B/30 ★SU -627-088
itational aq. sludge thickener - has vertical mesh screen in
which come together to compress sludge which sinks, used in
ge and water purificn.
UILD SANITARY EQUI 24.05.76-SU-362853
01 (21.08.78) C02c-03
ice for gravitational thickening of sludge formed during
purificn. of water and sewage, comprising a container,
kening element fastened to a shaft connected to a drive
tor).
The thickening process is intensified, as a result of
orming the structural framework of the sludge and int-
ively mixing the water, by making the element as vert-
mesh screens installed in pairs. One of these is firm
fastened to the body and the other to the shaft. The
meability of the screens increases from the top down-
rds.

Luzin V.S., Demura M.V., Bul. 37/5.10.78 24.5.76 as 362853 (2pp29)

POLY= ★ D15 55861B/30 ★SU -627-089
Organic material contg. effluent water purifier - has bottom support for adsorbent holding truncated cone set coaxially to cylinders
POLYMER ADHESIVE RE 05.07.74-SU-044358
(17.08.78) C02c-05

The compact effluent water purifier with enhanced efficiency has a support attached to the lower bottom for the truncated cone and absorbent. The latter is fitted coaxially to the cylinders, and the central tube discharges through the bottom while its top carries the funnel-shaped strainer in the upper part of the truncated cone. The strainer is surmounted by the spherical cover.

The effluent is fed to the adsorption zone through the strainer, and the clarified water flows out via the funnel and the discharge tube. When the adsorbent is saturated with impurities, the unit is switched to the regeneration regime and the desorbent is fed into the adsorption zone. The eluate is transferred to the catalytic zone to oxidise the organic cpds.

Padaryan G.M., Stepanyan I.S., Grigoryan K.N., et al. Bul. 37/5.10.78 5.7.74 as 044358 (3pp89)

MOMO= ★ D15 55998B/30 ★SU -627-326
Automatic dispensing of reagent for purifying drinking water or sewage - by using bubbling tube, to register initial liquid pressure head change, piped to covered run/off
MOSC MOSVODOKANALNI 02.07.73-SU-941826
R13 (14.08.78) C05d-27 G01f-01

Liquid reagents can be dispensed automatically by using an open runoff and a covered runoff to divide the flow. For greater accuracy, an initial liquid pressure head change signal, recorded e.g. by a bubbling tube, is transmitted by pipe to the covered runoff, and the reagent flow rate is altered according to the change of this pressure head. This relates the reagent flow to the flow of the initial liquid receiving it. The method is useful in purifying household drinking water or sewage.

Litman M.D., Bul. 37/5.10.78 2.7.73 as 941826(2pp840)

UWAT= ★ D15 56038B/30 ★SU -627-838
Siphon unit for liquid e.g. water and effluent, purifiers - has automatic switch/over device and float which releases gas from siphon as liquid level rises
UKR WATER ENGGS INS 19.08.75-SU-190201
J01 R26 (21.08.78) B01d-23/26 G05d-27

The unit for cleaning liquids, e.g. natural waters and effluents contg. mechanical impurities can be used in the chemical, metallurgical etc. inds. It has a body, filter element, shut-off valve for the siphon and automatic switchover device, comprising a mechanical connection fastened to a float.

The operational reliability is increased by including in the automatic switchover device a gas-withdrawin valve connected to the siphon. The closing unit of the valve is connected by the mechanical link to the float. Theliquid to be treated comes on to the filter element and the clean liquid collects in its own storage tank. At the beginning of the filtration the level of the liquid in the space under the filter is higher than that in the long-duration washing control container by the value of the initial pressure loss in the filter charge and the loss arising in the moving liq.

Safonov N.A., Krat V.A., Bul. 38/15.10.78 19.8.75 as 190201 (3pp29)

GIPR= ★ D15 56052B/30 ★SU -627-863
Horizontal centrifugal precipitation separator - contains additional disc connected to rotor lid by ring of pegs, with conical openings for discharge of effluent
GIPROMASHUGLEOBOGAS 29.03.77-SU-468492
J01 P41 (23.08.78) B04b-01/20

Simplified horizontal centrifugal precipitation separator for suspensions is ensured by novel design of the effluent's discharge channel. Between the lid of the conventional cylindrical-conical rotor and the drum of the worm screw adjacent to the latter is mounted an additional disc, which is fixed to the rotor's lid by a ring of pegscontg. conical openings for the discharge of the effluent.

At the side of the drum, the disc is equipped with a rim which guides the clarified liquid phase into the discharge openings. At the joint of cylindrical and conical sections of the drum of the worm screw are openings through which clarified liquid phase flows from the rotor into the drum, while the worm screw pushes the precipitate along the rotor to the solid phase discharge openings at the end of the conical section of the rotor.
Vertola L. T., Klochko G. P., Suprun Yu. M., Bul. 38/ 15.10.78 29.3.77 as 468492 (3pp135)

GEVA D15 41207W/25 =US 4160-594
Photographic processing liquid wastes treatment - with flushing cell between developer and fixing bath and separate neutralization
AGFA-GEVAERT AG 07.12.73-DT-361151
*G06 R23 R24 (10.07.79) *DT2361-151 G03d-03/02*

Appts. for developing photographic film includes a film transporter, developing and fixing stations, a spent fluids waste line and a fresh developer supply operated continuously during developing. Fixer fluid is passed to a desilvering unit, and a neutraliser adds an oxidising agent to spent developer before it reaches the waste line.

The film is washed between the stations to prevent developer fluid from reaching the fixing station and then the desilvering unit. The oxidising agent is pref. acetic acid or hydrogen peroxide. The desilvering unit pref. operates electrolytically. 22.9.77 as 835527 (+ 5.12.74-US-530049) (10pp1358).

HITA D15 67872A/38 =US 4160-713
Electrodialysis method to concentrate or desalt an electrolyte - by introducing a gas into the soln. between the membranes to generate air bubbles in the soln.
HITACHI KK 31.01.77-JA-008666 (31.01.77-JA-008665)
*J03 (10.07.79) *J53094-277 B01d-13/02*

Electrodialysis, e. g. for desalination or purificn. comprises passing electrolyte through dilution and concn. chambers formed between alternate anion- and cation-exchange membranes, and applying a potential to end electrodes to migrate ions through the membranes.

Air bubbles are fed to the chamber lower parts to reduce the thickness of a diffusion layer formed by concn. polarisation near the membranes and to reduce resistance between the electrodes. The bubble superficial velocity is controlled to keep the ratios of initial to reduced values constant, and is pref. 1-4 cm/s. 30.1.78 as 873680 (12pp1358).

KOVA/ ★ D15 56190B/30 ★US 4160-723
Activated sludge system for domestic and small scale commercial use - comprises aeration and clarification tanks and liquor transfer system
KOVACS A J 10.05.76-US-685005
A88 (10.07.79) C02c-01/08

Appts. for removing pollutants from waste water comprises an aeration tank which received waste water and includes an oxygen diffusing system which causes sludge in the tank to circulate in a rolling path. Contents from the aeration tank are transferred to a clarifier tank which is used for separating the sludge from the clarified liquid.

The diffusing system provides oxygen to the proximity of the incoming sludge and waste water and provides oxygen at spaced intervals throughout the aeration tank so as to provide aerobic decompsn. of waste water. Pref. oxygen diffusing means comprises a number of aperatures and elastic sleeves covering the appts, the sleeves being of neoprene or Buta N rubber.

Suitable for Actrated sludge process adaptable for residential and small commercial usage. Optimum flow conditions are not in the pick up and explusion of the active sludge. Sleeves are provided over the diffuser apertures to keep solids from entering the apertures when the compressor is shut down. The diffusing system dispenses bubbles along the header and produces bubbles of different sizes. 10.5.76 as 685005 (8pp1044).

ONTA D15 38768A/22 #US 4
Aq. effluent purification - by anaerobic denitrifying of
and/or nitrite nitrogen, aerobic nitrification and phospho
pptn.
ONTARIO RES FOUND 08.11.76-CA-265112 (12.11
741221)
*(10.07.79) *DT2749-971 C02c-01/06*

Nitrogenous and carbonaceous contaminants are re
from waste water in a single sludge two-tank syste
symbiotic two-step process, where ammonia is oxi
to nitrate in the second tank, and nitrate reduced to
gen gas in the first tank.

Biological sludge is the same in both tanks, but
ent reactions occur as the mixed microbial populati
moves through various environmental conditions in
tanks. Carbonaceous material is removed in the fi
tank by a combination of biological uptake with cell
and use of the carbon as a final electron acceptor i
-atory denitrification.

Esp. used for the treatment of domestic or indu
sewage. 19.6.78 as 916868 (10pp931).

CNRM D15 55122A/31 =US 4
Purification of effluent waters contg. ammonium and pheno
- using a stripping column in which no ammonia vapour
through phenol stripping zone
CENT NAT RECH METALLURGI 25.03.77-LU-077015
*(10.07.79) *BE-865-336 +B01d-11/04 C01c-01/02*

A stripping column is operated for purifying waste
contg. ammonium and phenolic cpds. by passing wa
water and stripping fluid through the column in cou
flow. A first region in the column is defined where
volatile ammonium cpds. are removed from waste
a second region, where phenolic cpds. are remove
a third region, where volatile ammonium cpds. are
ved.

The second region is disposed at a location in th
mn such that ammoniacal vapour cannot traverse it
strong base is fed into the column at a level where
water pH (where decreases from the top of the colu
of 6-7 is raised to 10-11.5. An acid is fed into the
at a lower level to reduce pH from 8-9 to 2-5. Col
comprises, from bottom to top-the second, the firs
the third regions.

Used esp. for purifying waste water from coke o
23.3.78 as 889481 (3pp931).

FODA ★ D15 56192B/30 ★US 4
Staged reverse osmosis units for purifying and dispensing
for use in coin operated vending machine
FOREMOST MCKESSON 07.12.76-US-748285 (21.02
551671)
(10.07.79) B01d-13 B01d-31

A water purifying and dispensing machine comprise
-inet contg. first and second reverse osmosis units
pump delivers feed water to the first unit and a furt
pump delivers permeate from the first unit to the s
unit. A reservoir holds purified water from the se
unit and a dispensing station is accessible externall
the cabinet.

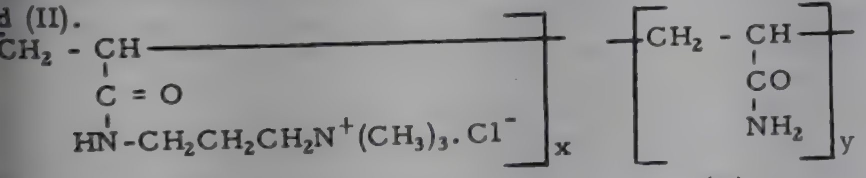
A coin operated device delivers water from the r
voir to the station and a sump pan is disposed in the
et bottom for catching water from parts of the mach
A pump delivers water from the sump pan to an ext
drain in response to a level detector.

Used in prodn. of highly purified water from pot
water for use in coin operated vending machine. T
pan catches spillage, accidental overflow from the
voir and reject flow from the osmosis units. A val
feed water inlet is closed automatically in the event
the water level gets too high in either the reservoir
sump pan. The machine will not accept coins in the
that water in the reservoir drops to a predetermine
el or fails to meet a desired standard of purity. Mi
can be added to the purified water. 7.12.76 as 7482
(10pp1044).

★ D15 56193B/30 ★US 4160-729
oily contaminants from water - by contacting with de-oiled
eum asphalt bottoms
EVRON RESEARCH CO 23.09.74-US-508114
8 J01 (10.07.79) C02b-09/02
ontaminated water is purified by contacting the water
particulate porous petroleum asphalt bottoms (I) hav-
n average dia. of 1/8-½ inch and separating the result
oil-contg. (I) from the water. Specifically (I) is
d. by (i) saturating the asphalt at a temp. above its
ening pt. with a extractable oil, (ii) cooling the mixt.
temp. ≥20°C below its initial R and B softening pt.,
iii) removing the extractable oil by solvent extraction
temp. below the initial softening temp.
rocess is applicable to water/oil mixts. in any mixing
, the oil being present as and o/w emulsion and/or as
parate phase. The absorbed oil may be sepd. and re-
red from the oil-contg. (I), e.g. by solvent extraction,
ing vapourisation, etc. Alternatively the oil-contg.
ay be disposed of by burning as a fuel. 23.9.74 as
14 (3pp920).

T ★ D15 56194B/30 ★US 4160-730
ury removal from aq. media - by treatment with hypochlorite,
reducing agent, and stripping with gas, used esp. for mercury
de electrolysis paint effluent
OMTAR LTD 22.08.77-US-826524
03 M25 (10.07.79) C02b-01/36 C22b-43
rcury is recovered from an aq. medium contg. inorgan-
onic mercury and solids with which the mercury is
ociated, by (a) treatment with at least a twenty fold
ar excess of hypochlorite, to dissociate the mercury
m the solids; (b) adding sufficient reducing agent to con-
t all the mercury to the elemental form; (c) passing
as through the medium to entrain the mercury; (d)
g. the mercury from the gas.
The process is esp. useful for effluent from mercury
hode electrolysis plant. Recovery of mercury is more
nplete. 22.8.77 as 826524 (6pp955).

CY ★ D15 56195B/30 ★US 4160-731
atering lime disinfected sewage sludge - using as flocculant a
olymer of acrylamide and 3-meth:acrylamido propyl-tri:methyl
nonium chloride
AMERICAN CYANAMID CO 18.04.78-US-897474
A91 (A14) (10.07.79) C02c-03
sinfected solids suitable for use as landfill arc recover
d from sewage sludge by treatment with sufficient lime to
ovide a pH ≥12.0, then adding a copolymer (I) having a
ndard viscosity of ≥1.5 cps contg. units of formula (I)
d (II).



$$\left[\begin{array}{l} CH_2-CH \\ \qquad\;| \\ \qquad\;C=O \\ \qquad\;| \\ \quad HN-CH_2CH_2CH_2N^+(CH_3)_3.Cl^- \end{array}\right]_x \qquad \left[\begin{array}{l} CH_2-CH \\ \qquad\quad\;| \\ \qquad\quad\;CO \\ \qquad\quad\;| \\ \qquad\quad\;NH_2 \end{array}\right]_y$$

(I) (II)

ere x corresponds to a mole percentage of 3-60 and y to
mole percentage of 97-40. The sludge is then filtered to
move water.
(I) is effective as a flocculant for sewage sludge even
high pH. 18.4.78 as 897474 (3pp955).

VO ★ D15 56196B/30 ★US 4160-732
chanically dewatering fibrous organic waste - in zone having
rous wall comprising windings and screw conveyor spaced
edetermined distance from wall
UOP INC 29.03.78-US-891437 (08.03.77-US-775673)
C04 (10.07.79) B01d-37/02
ibrous organic waste is dewatered by passing a feed stre
am contg. at least 5 wt.% fibres and at least 50 wt.% wa-
er into a dewatering zone formed by parallel windings
hich are spaced apart by 0.0075-0.013cm. A screw con
veyer having a helical blade pressurises the feed stream
the zone. The helical outer edge of the screw conveyer
separated by 0.08-5.0 cm. from the surface of the wall
ormed by the windings.
Fibres derived from the feed stream provide a continuous, unagitated cylindrical layer of filter media in an annular space between the helical outer edge and the wall. Water is withdrawn radially from the zone through the wal and filter media.

Used mechanical dewatering of sewage sludge. The po -ous cylindrical wall does not become clogged or degraded. The process achieves an extremely high water reject- ion. Multi-pass dewatering processes can produce a solids content of approx. 94 wt.%. 29.3.78 as 891437 Cip 4098006, 4128946 (+ 7.7.77-US-813577) (7pp1044).

LRSR- ★ D15 56198B/30 ★US 4160-734

Mobile system for cleaning and processing catch basin waste - which carefully controls dilution degree prior to transfer to dewatering truck

LRS RESEARCH LTD 05.07.77-US-812483 (26.07.76-US-709566)
(10.07.79) B01d-21

A catch basin cleaning system for removing liquid, solid and semi-solid wastes comprises a pump for injecting under pressure into the basin to suspend the wastes. An equalisation system receives the waste-contg. liquids and temporarily holds them in a tank. A level sensor determines the waste level and controls the input of liquid into the tank. A dewaterer receives the waste-contg. liquids from the equalisation system and produces liquid and thickened portions. An agitator homogenises the waste-contg. liquids retained in the equalisation tank.

Used for handling of thick, viscous or thixotropic materials, esp. reclamation from storage lagoons of dry, semi-dry or near gelatinous sludge formed as mfg. by-product. Fast, efficient cleaning of the catch basin is effected with min. water addition. The density of clean-pump discharge is maximised and the wash residues are dried to produce a land fillable cake or a thick slurry which is acceptable discharge to a process head or sanitary sewer. 5.7.77 as 812483 Cip 4040960 (12pp1044).

AUTO- ★ D15 56200B/30 ★US 4160-736

Purification of waste water using rotating trickling filter - comprising elongated, hollow, imperforate shell contg. fixed film contactor media

AUTOTROL CORP 11.10.77-US-840532
(10.07.79) C02c-01/04

A rotating trickling filter comprises a hollow, elongated, imperforate, circular cylindrical shell having a waste water inlet at one end and a treated water outlet at the other end of the shell. A fixed film contactor media is mounted within the shell and spaced from the interior surface. A plurality of spaced channels scoop wastewater from a pool of wastewater in the shell and raise the waste water as the channels ascend. The wastewater is discharged over the media in a trajectory which adds the wt. of the wastewater to the decending media surfaces.

Used in biological treatment of wastewater. There is less hydraulic drag than a rotating biological contactor which requires more power to drive it than the trickling filter. The media is supported and driven at its periphery. Rotation overcomes plugging problems. Each drop of wastewater is exposed to several different surfaces. The open channels provide a very efficient pumping arrangement. Short-circuiting does not occur. 11.10.77 as 840532 (10pp1044).

GUTE/ ★ D15 56201B/30 ★US 4160-738

Domestic high pressure water purifier - with tubular reverse osmosis element in sealed two/part housing

GUTER G A 16.05.77-US-796852
(10.07.79) B01d-27/08

A high-pressure water purifier has a housing of two co-operating parts joined by a seal and holding a tubular reverse osmosis filter element. There are further mechanical connections within the chamber to positively connect the parts and hold the element in position.

The housing has seals to form dirty and clean water chambers, and tap water can be fed to the filter and purified water discharged dropwise into a storage container to give an aerated supply. There is pref. a water overflow from the housing to a drain to which the waste water is also discharged. 16.5.77 as 796852 (9pp1358).

CALG ★ D15 56204B/30 ★US 4160-742
Resolving oil-in-water emulsions - using copolymer of acrylamide and methacrylamido propyl-tri:methyl-ammonium chloride
CALGON CORP 15.06.78-US-916034
A97 H05 J01 (A14) (10.07.79) B01d-17/04

An oil in water emulsion is broken by treating it with a copolymer of acrylamide and methacrylamidopropyl trimethylammonium chloride (I) containing $\geqslant$50 wt.% acrylamide.

Used in de-emulsification of waste streams from refineries or metal, chemical or food processing w so that the water phase can be discharged as clean ent. 15.6.78 as 916034 (5pp1302).

See Also
D22 GB 1549053

D16: FERMENTATION INDUSTRY

MERI ★ D16 54513B/30 ★BE -873-653
Cultivating cells or virus using Koch Static Mixing System - allows close control of oxygen level, pH and growth conditions
MERCK & CO INC 25.01.78-US-872289
B04 C03 (23.07.79) C12b

In the propagation of cells or a virus by introduction of a liquid culture medium and the cells to be cultured into a propagating vessel, the medium is opt. seeded with the virus, and harvesting of the cells or virus from the propagator uses a Koch Static Mixing System (RTM) appts. as the propagator vessel.

Used in the prodn. of cells and vaccines e.g. vaccines against mumps, measles, rubella, Mareks disease, Herpes I and II, influenza, parainfluenza, chicken pox, respiratory diseases, etc. The system allows close control of dissolved oxygen levels, pH etc. and the mixing, culture growth vessel allows a large range of flow rates with close regulation of growth conditions. 23.1.79 as 873653 (15pp395)

MILE ★ D16 54547B/30 ★BE -875-032
Preparing aggregate of bacterial cells esp. streptomyces olivaceus - by contacting with crosslinked cationic polymer prepd. from epihalohydrin and an alkylene poly:amine
MILES LABORATORIES INC 27.03.78-US-890500
A91 (A26) (16.07.79) C12b C12k

The process comprises contacting the bacterial cell mass with a cross-linked reaction product of (1) glutaraldehyde, a cyanuric halide or mixtures of these and (2) a water-sol. cationic polymer prepd. by polymerisation of an epihalohydrin and an alkylene-polyamine of formula: $R_1R_2NRNH_2$, in which R is 2-6C alkylene and R_1 and R_2 are each 1-6C alkyl. In preparing the polymer, the epihalogenohydrin/polyamine mol. ratio is from 0.6:1 to 1.7:1; the polyamine is first reacted with 50-90% of the epihalogenohydrin to attain a substantially-uniform viscosity then the remainder of the epihalogenohydrin is added in portions and a polymerisation temp. of 60-120°C is used. The cellular aggregate is then recovered and opt. dried.

A particular embodiment comprises contacting cells of Streptomyces oliviceus above at pH 8-9 and at pH 8-9 and at 0-30°C for 0.5-1.5 hr. with 4.5-60% by wt. based on the dry cells of the reaction prod. of 12-77% of glutaraldehyde and/or cyanuric trichloride and 23-88% of (2) based on the weights of (1) and (2), at pH 6-10 and at 0-30°C for 0.5-2.5 hrs.

The process is esp. used to prepare immobilised glucose-isomerase enzymes. The aggregate after rehydration has a greater hardness (resistance to compression) than previous aggregates. 22.3.79 as 875032 (18pp597)

BORK/ ★ D16 54571B/30 ★DL -135-357
Sediment clearance device for vats - with water spray nozzle swivelled by revolving cam disc
BORKMANN K 03.03.78-DL-203954
P43 (02.05.79) B08b-03/02 B08b-09/08 C12c-09

A device to remove sedimented slimes from containers, e.g. slimes of wort from whirlpool vats in the beer brewing industry, is based on a swivelling nozzle which is supplied with water and is directed by a cam disc to describe spirals from the inside outward. Both the swivelling zle and the cam disc are driven by coaxial hollow sh

This combines a complete and fast removal of the with a min. of water consumption. The formation of iment cone is not impeded by any direct mechanical ct with any device. 3.3.78 as 203954(8pp39)

PORS/ ★ D16 54585B/30 ★DL -1
Purification of peroxidase - by affinity chromatography a filtration
PORSTMANN B 01.03.78-DL-203916
A97 B04 (02.05.79) C07g-07/02

Isolation of high-purity peroxidase (POD) is effected subjecting crude POD to a combination of affinity chr tography and gel filtration to remove impurity protei non-POD glycoproteins and sugars, so that POD with specific activity of 450-590 IU/mg protein (purity no. 2.9), corresp. to a 13-fold increase in specific activ is obtained after a treatment time of 35-50 hr.

The product is suitable for use as an enzyme labe immunoassays.

Affinity chromatography is pref. carried out usin column of concavaline A-sepharose (CAS) swollen wi 0.15M phosphate buffer (pH 6-7) or 0.01M carbonate (pH9.5) contg. 1M NaCl. Elution is effected with the buffer contg. 0.5-1.0M sucrose. Gel filtration is pr effected with a dextran- and/or acrylamide-based ge ing the same buffer as above (without NaCl). 1.3.78 203916(9pp367)

HIEK/ ★ D16 54590B/30 ★DL -1
Microbiological fermentation of petroleum fractions paraffin(s) - nitrogen and sulphur to obtain transformer oi proteins
HIEKE W 02.03.78-DL-203918
H04 L03 (D13) (02.05.79) C10g-31/12

Electrically insulating oils, partic. transformer oils protein substances, are produced from petroleum fra tions contg. paraffins, S and N, boiling at 230-420°C ton, microbiologically in known manner. The prod. is hydro-raffinated to obtain, on distn., an oil fracti having a solidification point of -1°C to -18°C., pref. to -10°C.

The sepd. oil fraction is then treated with H_2SO_4 a bleached with active earth, the solidification point of fraction being reduced to <-45°C, by addn. of a sui solidification point lowering agent of the alkylnaphtha type.

The oils have very good low temp. properties, hi oxidn. resistance and stability to ageing. High yields protein substances are also obtd. 2.3.78 as 203918(8

HIEK/ ★ D16 54591B/30 ★DL -1
Prodn. of lubricating oils and protein from paraffinic oil microbial dewaxing and hydrofining
HIEKE W 02.03.78-DL-203919
H04 (D13 H07) (02.05.79) C10g-31/12

Lubricating oils and protein are obtd. from paraffini fractions of boiling range 230-420°C, opt. contg. N a by (A) subjecting to biological de-waxing for sufficie g, (C) distilling to obtain a lubricating oil with flash over 100°C, together with ≥1 lighter fraction, and ding pour point depressant in amount of 0.1-3 wt.%. tion of pour point depressant is enhanced, allowing points below -45°C to be achieved. The oils have V.I., good ageing stability and high resistance to

Output of protein is increased to 20-25g./kg./hr., well times in the fermenter of 3-7 (4-5) hours. 8 as 203919(8pp195)

D16 68410S/43 #DS 2017-590

se-contg syrup produced enzymatically

NDARD BRANDS INC 13.04.70-NL-005289 (13.04.70-DT-590)

*(D13 D17) (19.07.79) *NL7005-289 +C12d-13/02*

ose syrups are obtd. by enzymatic or acid degradat- starch (esp. maize starch) to produce dextrose, foll by enzymatic conversion to fructose. The prods. in fructose (80%); dextrose (20-60%); other ketosugars %); other monosaccharides (< 2%); disaccharides %), mainly maltose; and trisaccharides (0-35%), with solids content of 65-85%, pH 3-6 and low protein nt (< 0.01%).

e prods. are used as sweetening agents in foods and ents. 13.4.70 as 017590(6pp47)

D16 23563Y/13 =DS 2659-896

coccus sp NRRL-B-8048 bacterial concentrate - for fermenting with nitrate or nitrate for red colouration

CROLIFE TECHNICS 10.12.75-US-639473

*2) (19.07.79) *US4013-797 A22c-11 A23b-04/12*

ococcus sp. NRRL B 8048 concentrates, (contg. ≥ pref. 10^9 cells/cm^3, opt. freeze-dried) are used prepn. of meat prods. esp. dry of semi-dry saus- with the addn. of edible nitrate and/or nitrite and bacteria which generates lactic acid.

e pref. proportion of micrococcus concentrate is -1 wt%, based on the meat content. 22.1.76 as 96 Div ex 2602321 (8pp47)

★ D16 54647B/30 ★DS 2841-414

-stable macromolecule-bound adenine coenzymes - produced alkylating the coenzyme, immobilising the macromolecule, ubjecting to rearrangement

S BIOTECH FORSCHU 22.09.78-DT-841414

(19.07.79) C07g-07/02

e prodn. of coenzymes contg. an adenine ring system lently bound to macromolecules, in which the adenine system is alkylated in the 1-position and the alky- coenzymes (opt. after reduction and subsequent re- tion) is subjected to Dimroth rearrangement (opt. elongation of the chain introduced by the alkylation) dded to a macromolecule, the Dimroth rearrangement rried out after the addn. to the macromolecule. In a enzymatic process using a dehydrogenase and NAD^+ lently bound to a macromolecule by the process, the matic process is carried out at pH 6.0-11.0.

he macromolecule-bound adenine coenzymes are ilised against base-catalysed degradtation, so that retain full activity in the alkaline pH range at which drogenase enzymes are optimally active. 22.9.78 as 14(6pp280)

★ D16 54755B/30 ★DT 2801-715

ng kiln barley distribution system - has spreader screw inside ure supported by rotating beam with level sensor controlling nt

UHLER-MIAG GMBH 16.01.78-DT-801715

35 (19.07.79) B65g-65/28

ribution system has a verticle delivery duct for the ey, around which rotates an agitator screw above the l of the floor. The screw is housed inside an elong- , open bottomed structure made from square hollow itudinals and cross members. This is suspended by nging arms for height adjustment from a flat structure e from similar square tubular members. This rotates t the central axis suspended from the roof.

This in turn suspended by a drive unit travelling on ers on a circular track supported by beams from the f. The distance between the screw housing and the cture above is controlled by a height sensor on the screw housing. This distance can also be set by a hand operated screw system between them. 16.1.78 as 801715 (31pp349)

DRED ★ D16 54811B/30 ★DT 2840-670

Recovering ergot alkaloid(s) from culture suspension - by filtering, drying mycelium in fluidised bed, then extraction

VEB ARZNEIMITTEL DRESDEN 20.12.77-DL-202798

B02 (19.07.79) C12d-13

Isolation of ergot alkaloids (I) comprises first mechanically sepg. the harvested culture suspension in its natural state (or after adding a swellable alumina when water-soluble alkaloids are present), e.g. by filtration.

The damp mycelium (opt. mixed with adsorbent) is then dried in a fluidised bed and extracted with an organic, aprotic solvent. The extract is then opt. extracted with dil. aq. acid, this extract made alkaline, then re-extracted with a water-immiscible solvent. The extract is then processed conventionally to give pure (I). Pref. the adsorbant is 4-5 wt.% bleaching earth, fuller's earth or bentonite and is stirred with the culture suspension for 30 mins. before sepn.

Recovering all types of therapeutically-useful (I) from saprophytic cultures. These adsorbants have high capacity for (I) and are easily sepd.; the mycelia (or mixts.) can be dried at an unusually high temp. without degradation or isomerisation. 19.9.78 as 840670 (11pp1251)

UHLI/ D16 52679B/29 =EP ---3-062

Bacterial culture process - using bacterium with temperature-dependent plasmid replication

UHLIN B E 30.12.77-DT-759053

*B04 (25.07.79) *DT2759-053 +C07h-21/04 C12d-13/06 C12k-01/02*

D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW).

Prodn. of gene prods. is carried out by (a) obtaining a bacterium contg. a plasmid which has a controlled copy no. (no. of copies per cell) at one temp. (T_1) but has a much higher or completely uncontrolled ("runaway") copy no. at a different temp. (T_2); (b) culturing the bacterium under conditions such that the temp. is equal or close to T_2 for at least a predetermined time; and (c) isolating the gene prod. from the culture.

The process can be used to produce polypeptides or proteins, e.g. enzymes, hormones, or antigens.

The temp-dependent copy no. can be utilised, e.g., in cases where the prod. inhibits bacterial growth; in this case, the bacterium is cultured at T_1 until a large stock of cells has been produced, after which the temp. is changed to T_2 to maximise the prod. yield.

29.12.78 as 101877.(44pp367).

(E) ISR: 6 Journal References.

BEEC ★ D16 54894B/30 ★EP ---3-069

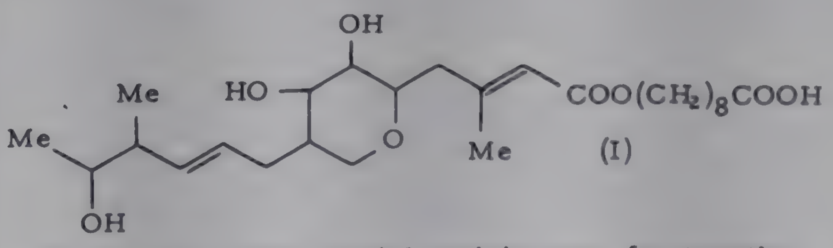
Pseudomonic acid C from Pseudomonas fluorescens fermentation - useful as antibacterial agent with good beta lactamase stability (DK 21.5.79)

BEECHAM GROUP LTD 01.11.77-GB-045305

B03 (25.07.79) A61k-31/19 C07d-309 C07h C12d-09

D/S: E(BE, CH, DT, FR, GB, NL, SW).

Pseudomonic acid C of formula (I) and its salts and esters are new:



(I)

(I) has high antibacterial activity esp. for treating respiratory and venereal diseases and mycoplasma-induced diseases. It has good acid stability and is effective against β-lactamase producing bacteria. Dose is 0.1-3 g daily in adults.

24.10.78 as 300530 (31pp1248).

(E) ISR: GB1395907; BE-716547; 1 Journal Reference.

ERBA D16 28849A/16 =GB 1549-069

Immunological determn. of antigens and hapten(s) - uses an immobilised antigen, a first antibody and a second enzyme-marked antibody

ERBA C SPA 10.12.76-GB-051709

*B04 J04 R16 +P31 P34 (25.07.79) *BE-861-711 G01n-31/14 G01n-33/16 +C07g-07*

Detection or assay of an antigen comprises contacting in a liq. medium, simultaneously or in stages, (a) an antigen on an insoluble support or in the form of insoluble aggregate, the antigen being the same as or different from the antigen to be detected or assayed; (b) a sample contg. the antigen to be detected or assayed; (c) a first antibody; and (d) an enzyme-labelled second antibody, which becomes attached to the insoluble material in inverse relationship to the antigen to be detected or assayed.

Process further comprises sepg. soluble and insoluble materials; and determining the enzyme activity in the soluble or insoluble materials, thereby determining the antigen in sample (b).

Method is fast, convenient and accurate and is used for determining antigens, haptens, hormones, drugs etc. 9.12.77 (11pp997).

STEI D16 83032Y/47 =GB 1549-083

Rectangular vessel for boiling beer wort - has heated base sloped up to central longitudinal ridge to improve wort circulation

STEINECKER A MASCH GMBH 07.06.77-DT-725758 (23.07.76-DT-633281)

*+Q34 (25.07.79) *BE-856-971 C12l-07/02*

Beer-making mash and wort tube providing spouting boiling action to increase coagulation and vaporisation is of rectangular cross-section in plan. It has a heater bottom upwardly inclined towards the centre from the two long sides and from at least one end to form a hip roof shape.

Bottom inclination to the horizontal is pref. less adjacent the long sides than in central areas and the bottom may consist of two symmetrical halves each with two flat sections connected by a rounded transition, the outer sections having an inclination of 10-20° and the inner 65-75°. Agitators pref. project longitudinally into the tub and are inclined laterally. 19.7.77 as 030182 (6pp1358).

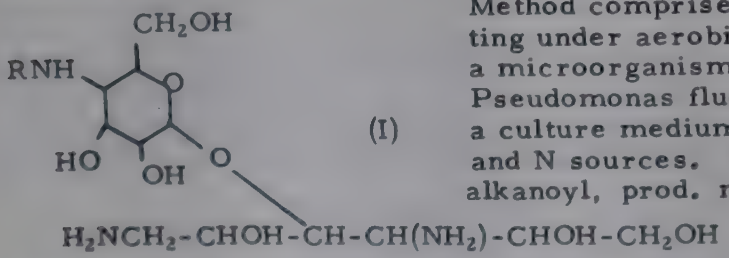
TAKE D16 93385X/50 =GB 1549-167

Biotics, P-2568 prodn.

TAKEDA YAKUHIN KOGY 11.04.75-GB-015062

*B04 (25.07.79) *J51123-886 +C07h-15/04*

Prodn. of dextrorotatory antibiotic P-2563 of formula (I) where R is H or alkanoyl, or their acid addn. salts is claimed.



Method comprises cultivating under aerobic conditions a microorganism from Pseudomonas fluorescens in a culture medium contg. C and N sources. Where R is alkanoyl, prod. may then be hydrolysed to give cpd. where R = H, or free NH_2 gps. may be protected, the alkanoyl amino may then be hydrolysed, the obtd. amino acylated to a different cpd. and protecting gps. removed. Pref. microorganism is Pseudomonas fluorescens P-2563 (IFO 13658). 12.4.76 (24pp963).

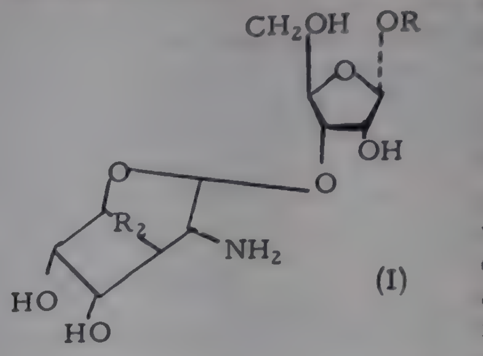
LLAB D16 64939Y/37 =GB 1549-320

Neomycin and paramomycin analogues - for use as broad-spectrum antibiotics, prepd. by fermentation

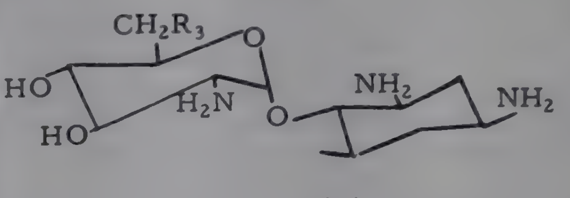
LAB LABAZ 11.03.76-GB-009859

*B03 (25.07.79) *BE-852-142 A61k-31/35 C07h-15/22*

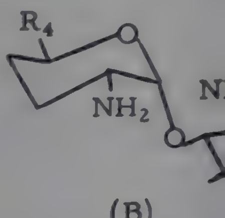
Aminoglycoside-aminocyclitol derivs. of formula (I) are new. In the formula, R_1 and R_2 are different and a
CH_2NH_2; and R
(A) or (B). R_4
$-NH_2$ or CH(CH
CH_3; and R_3 is
OH. R_5 is H o
When R is (B),
are in the form
unsepd. combin
obtd. by cultiva
Streptomyces r
forma paromon
ATCC 21484 an
of gentamines, or their acid addn salts produced w
fluxing gentamicin base with HCl.



(I)



(A)



(B)

The cpds. are antibiotics esp. useful against re
strains of microbes. 3.3.77 (14pp945).

DATA D16 21654Y/12 =GB

Tissue culture cluster dish - with well bottoms above b
underside and lid fitting on base protrusions

DATA PACKAGING CORP 06.10.75-US-619603

*+Q34 (25.07.79) *US4012-288 C12k-01/10*

Tissue culture cluster dish has a transparent base
flat-bottomed wells and a transparent removable li
well bottoms are in a plane above the lower edge o
base rim so that they cannot contact a support surf
and the lid is supported on posts and tabs in the ba
its lower lip which forms the only contact between
and lid.

The base pref. has no peripheral side walls on
two sides, and the wells have vertical sides and pe
ribs extending below their bottom surfaces. The b
pref. has an identifying number for each well and t
has a frosted section. 1.9.76 as 036157 (6pp1358).

MATS/ ★ D16 55083B/30 ★J5

Neosporin antibiotics - prepd. by culturing Cercosporina kik

MATSUEDA K 15.11.77-JA-137147

B05 (13.06.79) A61k-31/12 C07c-49/62 C12d-09/04 C12

New neosporin antibiotics have structure corresp.
bis (2-hydroxypropyl)-2, 11-dimethoxy-6, 7-methyle
5, 8-dihydroxy-perylene-3, 10-quinone. They are p
culturing Cercosporins kikuchi fungi (No. 4267) of C
spora genus.

In an example, potato -glucose agar-agar mediu
used as culture medium. Seed fungi was inoculated
subjected to stationary culture at 27°C for 7-10 day
Fungi body and culture medium were coloured into
brown to red purple with produced Neosporin. 15. 1
as 137147 (5pp69).

KIKK ★ D16 55387B/30 ★J5

Compost prepn. from woody material - by contacti
superheated steam, adding fermentation nutrients and ferm

KIKKOMAN SHOYU KK 29.11.77-JA-142247

C04 (16.06.79) C05f-09/04 C05f-11 C05g-01

Compost is obtd. by contacting superheated water
having a temp. of >125 (124-300)°C with pulverised
ed woody material for >5 mins., adding fermentat
rients to the resulting materials; and then accumul
fermenting the mixt.

The compost is largely free of the growth inhib
substances which adversely affect the growth of fe
ion microorganisms and plants (e.g. resin, tannin
septics, essential oil). The method produces little
liquid, and gives the compose in a short period.

Nutrients include water, nitrogen source, carb
ce, mineral and vitamins, and partic. suitable are
cake, fish meals, excrements, rice bran, rice st
line nitrogen and water. The pH of the compost m

★ D16 55486B/30 ★ J5 4076-286

**metric determination of substrate or enzyme activity - using
c and nonionic surfactants as colour stabilisers for methylene**

AKO PURE CHEM IND KK 30.11.77-JA-143738
J04 R16 (18.06.79) G01n-31/14 G01n-33/16

method is effected using both nonionic surfactant and
nic surfactant as colour stabiliser to determine the
ge of reduced type hydrogen carrier (e.g. NADH)
h changes in relation to the amt. of substrate or en-
atic activity, via intermediate electron carrier, as the
ge of colouration of methylene blue, in enzymatic re-
on consisting of one or more enzymatic reactions in-
ing the enzymatic reaction in which hydrogen carrier
as coenzyme.

Colouration of methylene blue can be stabilised and the
. of substrate or enzymatic activity can be very pre-
ly and rapidly determined. The method can be easily
lied to automatic analytical method. 30.11.77 as
738 (9pp50).

W D16 76389Y/43 = J7 9017-830

**ole riboside prodn. - by culturing Brevibacterium etc. on a
ium contg. triazole derivs.**

YOWA HAKKO KOGYO 15.03.74-JA-029001
*03 (03.07.79) *J50123-882 + A61k-31/41 C07d-249/08 C12d-
3*

azol ribosides are prepd. by culturing Brevibacterium,
ynebacterium, Arthrobacter, Micrococcus, and Bac-
s in a medium contg. triazol derivs.

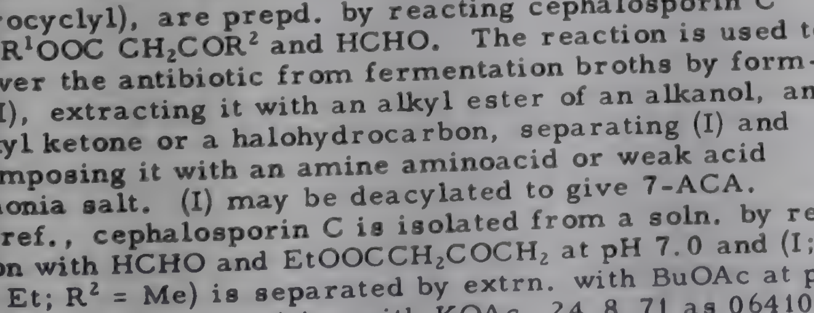
n an example, B. ammoniagenes (ATCC 21477) was
ured aerobically at 30° for 24 hr. in a medium contg.
cose 130, KH_2PO_4 1, K_2HPO_4 3, $MgSO_4$ 1, $CaCl_2$ 0.1g
O_4 10, $ZnSO_4$ 5, $MnSO_4$ 10, vitamin B_1 5, Ca pantoth-
te 10, cystine 20 mg, biotin 30 ug, meat ext. 10, (NH_4)
$_4$ 2, and urea 2 g/l., (pH 7.6). After a 24-hr. incub-
n, 1,2,4-triazol-3-carboxyamide (2mg/ml) was added
he culture medium and the medium was incubated for
addnl. 3 days. The medium contained 0.23 mg 1-β-o-
ofuranosyl-1,2,4-triazol-3-carboxyamide/ml. 15.3.74
029001 C12d-13/00; A61k-31/41; C07d-249/08 (3.7.79)
OWA HAKKO KOGYO (6pp)(J50123882)

X D16 16134T/10 = J7 9017-831

**halosporin - c, beta keto ester, formaldehyde deriv - recovery of
ibiotic from broths**

GLAXO LTD 25.08.70-GB-040880
*B02 (03.07.79) *BE-771-694 C07d-501/12 + C12d-09/04*

d. (I) and its salts:-



here R^1 and R^2 are alkyl, aralkyl, cycloalky, aryl or
terocyclyl), are prepd. by reacting cephalosporin C
th $R^1OOC\ CH_2COR^2$ and HCHO. The reaction is used to
cover the antibiotic from fermentation broths by form-
g (I), extracting it with an alkyl ester of an alkanol, and
alkyl ketone or a halohydrocarbon, separating (I) and
composing it with an amine aminoacid or weak acid
nmonia salt. (I) may be deacylated to give 7-ACA.

Pref., cephalosporin C is isolated from a soln. by re-
ction with HCHO and $EtOOCCH_2COCH_2$ at pH 7.0 and (I;
^{1} = Et; R^2 = Me) is separated by extrn. with BuOAc at pH
.2, before decomposition with KOAc. 24.8.71 as 064101
clg.25.8.70-GB-040880) C12d-9/04, C07d-501/12
.7.79) GLAXO LABS., LTD (10pp)(J47005289)

FIZ D16 62990T/40 = J7 9017-832

**ephalosporin c extraction - using n-benzoyl deriv and water-
nmiscible sovent used for prodn of 7-aca as inter for anti**

PFIZER INC 26.01.71-US-109933
*B02 (03.07.79) *DT2157-693 + C07d-501/12 C12d-09/04*

fermentation broth contg. Cephalosporin C is reacted "in situ" with benzoylchloride to obtain the N-substd. deriv. which can be extracted with solvent. The reaction is carried out at pH 7-10, pref. 8.0-8.5. The deriv. is extracted using water-immiscible solvent such as water-immiscible alcohol, -ketone, ester or chlorinated hydrocarbon. The process may be carried out in fermentation media with low- or high potencies. 22.11.71 as 093230 (clg.26.1.71-US-109933) C12d-9/04; C07d-501/12 (3.7.79) PFIZER INC (3pp)(J47016692)

NIOF D16 52516A/29 = J7 9017-83

Clarifying agent for wines - contg. collagen polypeptide and op persimmon juice and/or tannin

NIPPON OILS & FATS KK 27.11.76-JA-142514
*(03.07.79) *J53066-495 C12h-01/02*

Clarifying agent contains collagen polypeptide obtd. by hydrolysing collagen protein and having mol. wt. of 2000-5000. The clarifying agent can be prepd. easily and can be applied effectively to wines e.g. 'sake', wine, beer, 'mirin'. etc., without changing the taste and flavour.

The clarifying effect of collagen polypeptide can be further increased by applying together with persimmon juice and/or tannin. Usually collagen and perisimmon juice and/or tannin are applied in wt. proportion (on dry basis) 1:0.3-3 pref. 1:1. The clarifying agent is applied in an amt. of 0.001-0.02 pts. wt. pref. 0.005-0.01 pts. wt. on 100 pts. wt. wine. 27.11.76 as 142514 C12h-1/02 (3.7.79) NIPPON OILS & FATS KK (7pp)(J53066495)

KUKU/ D16 05163A/03 = J7 9017-83

Highly nutritive fermented vinegar prepn. from fruits - using apples pineapple flesh and the plant Stevia rebaudiana

KIKUHARA J (KIKU/) 20.05.76-JA-099624
*(D13) (03.07.79) *J52143-293 C12j-01/04*

Method comprises using apples, which are likely to go brown, as the starting material; adding 10 w/w% on apple of the flesh of pineapple and 1-2% on apple of a plant Stevia (Stevia rebaudiana Bertoni); immersing them in an aq. 1% salt soln.; crushing them; practicising alcoholic fermentation for 3-5 days; adding seed vinegar to make acid content 2-3 w/w%; removing air on the juice as far a possible; and practicing acetic acid fermentation conventionally.

Browning of apple vinegar during fermentation and preservation can be prevented effectively, and nutritive and delicious fruit vinegar can be prepd.

Alkaline, nutritive and delicious fruit vinegar that cannot be obtd. by the rapid fermenting method and synthetic method, can be obtd. 20.5.76 as 099624 C12j-1/04 (3.7.79) KIKUHARA I (3pp5)(J52143293)

ANON ★ D16 55681B/30 ★ RD-183-00

Purification of interferon mRNA - by hybridising induced material t CDNA

ANONYMOUS 20.06.79-RD-183009
*B04 (10.07.79) A61k-00/**

Interferon mRNA is purified by taking material induced in cells by known methods and hybridising to cDNA made from the mRNA from non-induced cells.

There is significant enrichment for interferon specific sequences; the purified prod. may be used in the prodn. of double stranded cDNA, which can be inserted into a suitable vector plasmid. Interferon material is useful as an antiviral and anticancer agent, and it is potentially useful as a modulator of the immune system, esp. in tissue graft. (1248)

URFO ★ D16 55707B/30 ★ SU-626-73

Stimulating resin exudation from coniferous trees - by treating cuts with sulphite alcoholic yeast fermentation waste with addn. o fodder yeast and water

URALS FORESTRY INST 16.05.77-SU-487305
A11 C03 P13 (18.08.78) A01g-23/10

Compsn. stimulating resin exudation from coniferous trees, based on a sulphite alcoholic yeast fermentation waste (I) is rendered more stable and effective by addition of fooder yeasts.

The compsn. contains (in wt.%) (I) 40-60, fodder yeast 2-5; the balance is water.

The compsn. is harmless for man, animals and plants

The compsn. is applied onto the cuts in the cuts in the autumn.
Konovalov N.A., Kulikov G.M., and Peterson O.A.
Bul. 37/5.10.78 16.5.77 as 487305 (3pp70)

TUMC/ ★ D16 55757B/30 ★SU -626-813
Centrifugal disc sprayer for spraying protein feed products - has ring coaxial with top disc and yeast container in lower disc to remove impurities and protect atomising slot
TUMCHENOK V I 23.03.77-SU-468314
P42 (05.09.78) B05b-03/12

The atomiser for spraying feed prods. e.g. feed yeasts, comprises upper fixed disc and coaxial lower disc so as to form a discharge slot connected to the container with the yeast etc. More effective atomising is achieved if the slot can be protected from progressive erosion. Thus the container within the lower of the two discs and the top disc in its turn has a coaxially mounted ring which dips into the container and is connected to system responsible for feeding the prod. to the discs.
Tumchenok V.I., Bul. 37/5.10.78 23.3.77 as 468314 (2pp 26)

TUMC/ ★ D16 55758B/30 ★SU -626-814
Atomising device used in spray dryer for protein feed products - has blades on shaft which draw in air through filtered injection ports and eject it through outlet ports
TUMCHENOK V I 23.03.77-SU-468316 (23.03.77-SU-468315)
P42 (05.09.78) B05b-03/12

The atomising device used in feed yeasts prodn. comprises disc and coaxial spinning lower disc forming an atomising slot between them and mounted on a drive shaft. For more effective operation, by intensive cooling of the shaft bearings, use is made of blades mounted on this shaft. The body has filtered injection ports in the top part and outlet ports in its lower part, and the bottom bearings in the assembly is placed below the discharge slot. This also eliminates compressor equipment for air forcing duty and the bearing position ensures that the sprayed prod. exerts a similar cooling effect on it.
Tumchenok V.I., Bul. 37/5.10.78 23.3.77 as 468316 (3pp26)

MAAP D16 13537V/08 =SU -627-160
Straining vat bottom - with triangular punched passages varying in direction from sector to sector
VEB MASCH & APP GRIMMA (BOCK/) 19.12.72-DL-167677
*(16.08.78) *DL-101-423 C12c-07/14 +B01d-25/04*

Intensified filtration through the bottom of the mesh filter tank in beer prodn. is achieved by increasing the free flow area and by orienting the passages. The unit also reduces the filtration period for the wort with the edges of the holes in the bottom inclined upwards. The angle with the plane of the bottom is 10-40°, and the direction of the slop differs from the centre to the periphery.

The slop in the direction of wort discharge maximises the free area for the liquid and minimises the passage for the mash. This results in small pressure drop while the fluid velocity is kept high.
Bock R., Schopf R., Petzold U. et al. Bul. 37/5.10.78 18.12.73 as 982345 (2pp89)

FERM= ★ D16 55929B/30 ★SU -627-161
Alcohol prodn. from starch bearing stock - with hot grain or potato mash divided into streams for cooking, cooling and saccharification before mixing with residue
FERMENT PROD RES 29.04.77-SU-483469
(16.08.78) C12c-11/08

The yield of alcohol is increased and the water effluent volume is reduced when working with starch based raw material of cereal and potato are ensured by dividing the hot filtrate of mash into four streams. The latter are diverted for boiling, cooling, saccharisation and fermenting before mixing with starch contg. residue. The flows are reunited and cleared from mineral impurities for the prepn. of the batch.
Chernov L.M., Yarovenko V.L., Zotov V.N. et al. Bul. 37/5.10.78 29.4.77 as 483469 (3pp89)

AAZP= ★ D16 55930B/30 ★SU -
DNA-dependent ribonucleic-acid-polymerase inhibitor - con
sodium selenate for high selectivity, useful in higher organ
transcription study
AS AZERB PHYS INST 06.04.77-SU-475209
E34 (16.08.78) C12k-01/02

Sodium selenite (Na_2SeO_3) is used as a selective inh
of the activity of 1-form of the RNA-polymerase dep
ing on DNA which catalyses synthesis of ribonucleic
(RNA) in cells of higher organisms.

The selectivity of this inhibitor permits its use i
for investigation of the transcription process in cell
higher organisms.
Abdullaev G.M.B., Mekhtiev N.Kh., Abdullaev F.
37/5.10.78 6.4.77 as 475209 (3pp70)

MICR= ★ D16 55931B/30 ★SU -
Glucoamylase producing microbial mutant strain sele
includes suppressing growth of non-mutants with desoxy-D-g
useful in glucose from starch mfr.
MICROBIOL EPIDEM 29.04.77-SU-481535
(16.08.78) C12k-01/02

Selection of the mutants of the microorganisms prod
glucoamylase is carried out by treating the microor
ms with a mutagen, growing cultures and selecting
ies showing increased glucoamylase prodn.

The method is simplified by carrying out the culti
ion in the presence of 2-desoxy-D-glucose, which ha
not undergone any mutation. Thus most of the usele
work is spared.

This method can be used in the microbiological in
Glucose is produced by hydrolysis of starch by gluco
lase.
Burd G.I., Gershanovich V.N., Afanaseva V.P. et
Bul. 37/5.10.78 29.4.77 as 481535 (2pp70)

NCAU= ★ D16 55932B/30 ★SU -
Microorganisms culture unit - has series-connected transdu
gas content and differential manometer operating the valve
NORTH CAUCASUS BIOS 06.04.77-SU-476265
(19.09.78) C12b-01/10 C12k-01/10

Stable and economic operation of the microorganism
culture unit described in Parent Patent Cert. No. 45
is ensured by the exhaust gas feed control in the sep
or. The control set includes series-connected trans
er of gas content in the culture liquid, differential m
ometer a recorder and a flow regulating valve.

When the gas content in culture liquid deviates fr
the set limit, the transducer provides a signal which
processed and transmitted to the valve controlling th
flow. The setting results in optimum conditions of
for the mixer impeller.
Miroshnichenko I.I., Voronkov N.V., and Nikolaev
Bul. 37/5.10.78 6.4.77 as 476265 Add to 459494 (2

RETO D16 11025X/06 =SU -
Flocculating active enzyme microbial cells - in the prese
metal cpd. increases aggregate stability
REYNOLDS R J IND INC 23.12.74-US-535615
*(D17) (11.08.78) *US3935-069 C12d-13/10*

An enzyme-catalysed transformation of a substrate i
effected by contacting the substrate with a previously
aggregate comprising active enzyme microbial cells
polyelectrolyte flocculating agent, and sufficient of a
oxide, hydroxide, phosphate or sulphate of Mg, Ca,
Mn to produce increased hardness in the aggregate.
substrate is then recovered. The process is used in
conversion of glucose to fructose or lactose to a mix
glucose and galactose. The flocculation of the micr
cells in the presence of the metal cpd. hardens the c
aggregates so that the flow rate of substrate solns.
beds of the microbial cells is improved, thus increa
their useful lifetimes. The processing of substrate
of relatively high viscosity is also made possible.
Long M.E., Bul. 37/5.10.78 22.12.75 as 301289 (

★ D16 B/30 ★SW 7713-889

ng metal from sulphide ore in situ - by adding oxidising rganisms and oxygen to water, pumping it into ground, g it to percolate and recovering metal ions

METODER AB 07.12.77-SW-013889

(09.07.79) C22b-03

organisms that can oxidise the sulphide mineral to ric acid and metal ions and/or substances that pro- the growth of such micro-organisms, are added to that contains oxygen or an oxygen-emitting substan- he resulting liq. is pumped down into cavities or ges in the soil or rock.

e liq. percolates through the soil or rock into a d set of cavities or passages from which it is pump- . The metals of interest are then extracted from the n elementary or bonded form, or are enriched by ion nge. 7.12.77 as 013889 (-pp1407)

D16 18065A/10 =US 4160-696

ic acid determn. e.g. in body fluids - using ascorbic acid e and a coupling component for dehydro:ascorbic acid

TMAN KODAK CO 23.08.76-US-716921

*J04 R16 +P31 (10.07.79) *DT2737-289 G01n-31/14*

npsn. for the detection of asorbic acid comprises ≫ /ml ascorbic acid oxidase, $5x10^{-3}-10^{-2}M$ coupling ance which interact with dehydroasorbic acid to pro- a detectable prod., and a buffer, so as to provide, addn. of water, an aq. compsn. buffered to pH 5.7-

ne process is highly selective (based on an enzyme tion), very rapid (requires < 5 mins) and can be carr out at low temp. (⩽ 37°C). 23.8.76 as 716921 76).

D16 76723A/43 =US 4160-697

urokinase purification by adsorption chromatography - on gp. contg. polysaccharide(s), useful for treating circulatory ers

NABE PHARMACEUTICAL KK 30.09.77-JA-118321 (09.04.77- -040683)

*7 B04 (A11) (10.07.79) *DT2812-609 C07g-07/02*

e urokinase is purified by contacting an aq. urokinase with á water-insoluble, hydrophilic polysaccharide ng a tp. of formula $-CH_2CH(OH)CH_2R$ (where R is sul- hio, sulpho or p-sulphophenylamino) so that urokinase sorbed; and eluting the urokinase from the polysacch- e.

igh potency urokinase can be obtd. in high yield and from pyrogens and other impurities. The danger of rogenic response is eliminated when such urokinase jected intraveneously into a living host. 23.3.78 as 95 (+ 28.4.77-JA-049634) (8pp976).

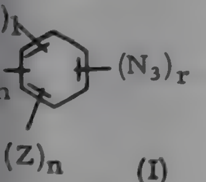
D16 34456A/19 =US 4160-698

enzymes using irradiation method - using high molecular ner in which an azide gp. contg. cpd. and the enzyme are rsed

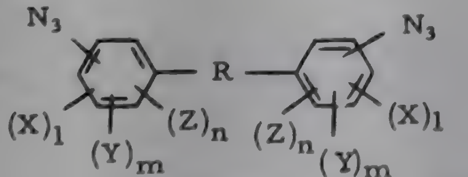
GENCY OF IND SCI TECH 09.09.76-JA-108154

*96 B04 E14 (A35) (10.07.79) *J53034-984 C07g-07/02*

nzyme is immobilised by mixing 1-20 wt. % enzyme a water-soluble high mol. wt. cpd. and an aromatic contg. azido cpd. of formula (I) or (II)



(I)



(II)

ere X, Y and Z are each halogen, alkyl, alkoxy, OH, honic acid or one of their salts, l, m, and n are each r = 2-5; R is a direct bond, $(CH_2)_p$, $(CH=CH)_q$ O, S, or NH; and p ans q are each 1-3); shaping and drying mixt.; and exposing it to light to bind the high mol. wt. to ore azido gp. of the azido cpd. and the enzyme to other.

There is no mictroation of the enzyme, and strong bond- is obtd. without high prodn. costs. 8.9.77 as 831649 976).

OLYU D16 35273A/20 =US 4160-699

Automatic incubator - with transfer device for loading and unloading cultures on parking, inspection and work decks

OLYMPUS OPTICAL KK 09.11.76-JA-133695

*(10.07.79) *DT2750-172 C12k-01/10*

A drive system for automatic culture appts. with verticall spaced culture vessel, progress observation and sepn./ distribution work platforms in an air-tight housing compr- ises a vessel carrier movable between platforms via. central openings on a transfer arm, and a mechanism mov ing carrier and arm vertically between positions adjacent the platforms and the arm both horizontally and vertically after reaching a position to move the vessel between carr- ier and platform.

The observation and/or work platforms are pref. rotat- able by a shaft from an external motor and passing throug a double pipe seal in the housing wall. 1.11.77 as 847553 (12pp1358).

GELM- ★ D16 56179B/30 ★US 4160-700

Moulded plastics petri dish - with bevel end wall and radial flanges on base and lid for easy handling

GELMAN INSTRUMENT 14.02.77-US-768311

J04 (10.07.79) C12b-01

Petri dish comprises a plastics moulding with flat round bottom and cylindrical wall 1/4-1/2 inch high and 1-4 inches in dia. A circular flange extends radially from the bottom to an outer dia. 1/4-3/4 inches larger than the wall.

A moulded plastics lid fits closely over the base and has a radial top flange of smaller outer dia. than that on the base. At least one of the wall and lid skirt is tapered at the end to permit easy fitting of the lid. The arrangement permits easy single-handed operation of the lid. 14.2.77 as 768311 (4pp1358).

TEPR- D16 81509X/44 =US 4160-787

Bitter principle prepn from hops - comprising alpha-acid isomerisation iso-alpha acid separation and beta-acid conversion

GIE TEPRAL 16.12.75-FR-039611 (02.04.75-FR-011278)

*(10.07.79) *DT2613-593 +C07c-45*

Hops are treated for the prepn. of bitter flavouring extracts for food prods. and fermented beverages by converting the alpha- and beta-acids into the isoalphs-acids, the bitter principle ingredient.

Alpha-acids in the content are divetly isomerised to the iso-alpha-acid. The beta acids are transformed to the alpha acid, either after a direct separation step before alpha-acid isomerisation, or the residual beta-acids, after the isomerisation, are then transformed and the resultant alpha-acid isomerised. Beta-acid transformation results from a radiation activation followed by an oxidation step with a per-acid.

. Isomerisation of the alpha-acid to the iso-alpha-acid is effected by the reaction with an alkaline earth metal ethoxide, esp. magnesium ethoxide. 31.3.76 as 672461 (6pp931).

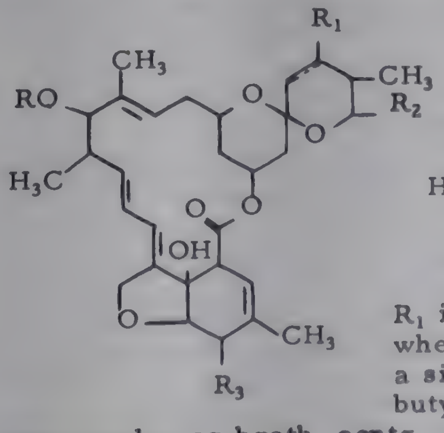
MERI ★ D16 56264B/30 ★US 4160-861

Sepn. of antibiotic C-076 components - by reverse phase high pressure liquid chromatography using methanol-water as eluant

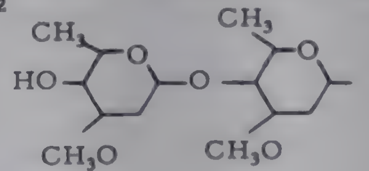
MERCK & CO INC 03.10.77-US-839138

B02 C02 (10.07.79) C07h-17/08

Sepn. of C-076 components of formula (I).



(I) (where R is gp. (II)



(II)

R_1 is OH and is present only when the broken line indicates a single bond; R_2 is propyl or butyl; and R_3 is OH or OCH_3) from a soln. or broth contg. a mixt. of (I) obtd. from the fermentation of a (I)-producing strain of Streptomyces avermitilis, comprises chromatographing the soln.or broth – on a reverse phase high pressure liquid chromategraphy column using methanol: water as the elution solvent.

(I) are useful as parasiticides. 3.10.77 as 839138 (5pp957).

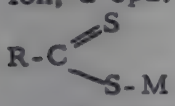
See Also

D13 DL 135322 D13 FR 2406393 D13 J7 9017
D13 J7 9017812 D13 J7 9017813 D13 SU 626
D21 US 4160754 D25 J5 4074809

D17: SUGAR; STARCH

UBEI ★ D17 55029B/30 ★J5 4032-413
Ketose prepn. - by isomerisation of aldose using cpd. contg. di:thiocarboxylate gps. as catalyst
UBE INDUSTRIES KK 19.08.77-JA-098783
E13 (09.03.79) B01j-27/02 B01j-31/02 C07h-03/02

In the prepn. of ketose by subjecting aldose to isomerisation, a cpd. having skeleton of formula (I)



(I) where R is $\geq$N, -O or -S and M is a metal ion or ammonium ion, is used as the catalyst.

The catalyst has a high activity in isomerising glucose into fructose, and in isomerising aldose other than glucose into corresp. ketose. 19. 8. 77 as 098783 (6pp).

MITP ★ D17 55060B/30 ★J5 4073-709
Butane-diol prodn. from 1,3-butadiene - by forming butadiene peroxide polymer and hydrogenolysing, reactions being in di:ethylene glycol di:methyl ether
MITSUBISHI PETROCH KK 21.11.77-JA-139603
(13.06.79) C07c-29 C07c-31/20

Prepn. of butanediol (I) comprises contacting 1,3-butadiene with O_2 to produce a butadiene peroxide polymer and hydrogenolysing the polymer to produce (I). Novelty is that the reactions are conducted in diethylene glycol dimethyl ether (II).

By employing (II) as the solvent, the prodn. rate and yield of the butadiene peroxide polymer are high. Also 1,4- and 1,2-butanediol can be obtd. in high yield with a high selectivity coefficient. 1,4-Butadiene can be easily sepd. from 1,2-butadiene by distn. 21.11.77 as 139603 (6pp75)

ALKU D17 23579A/13 =US 4160-675
Removing organic impurities from aq. solns. - esp. cellulose and starch hydrolysates, using acid cation exchangers and polymers contg. thiol gps. (NL 21.3.78)
AKZONA INC 17.09.76-NL-010396
*A91 E19 J01 (10.07.79) *DT2740-241 +C13d-03/12*

Organic impurity is removed from an aq. soln. by sequentially contacting the aq. soln. with an acid cation exchanger, then with a polymer of polycondensate contg. form of thiol gps. bonded to the carbon atoms.

Pref. organic impurities are removed from aq
of carbohydrates and/or substances obtd. in the r
and/or the prepn. of carbohydrates from intermed
prods., end prods. and/or residual prods. Excha
a strongly acid cation exchanger contg. sulphonic
Thiol gp. contg. polymer or polycondensate is bui
styrene and 0-80 wt.% of cross-linking monomer.

Esp. used as sorption agents for removing org
impurities which are colour or colour-forming bo
Facilitates removal to a very high degree. 12.9.7
832126 (5pp931).

PROJ- D17 08656A/05 =US
Glucose recovery from cellulosic plants - by stean
defibration, leaching with aq. alkaline soln. and hy
fibrous residue
PROJEKTIERUNG CHEM 20.07.76-OE-005345
*E13 F09 (10.07.79) *DT2732-289 C13k-01/02 +C12d-1*

Glucose is produced from cellulose-contg. vegeta
material which can be disintegrated by steam pre
treatment and defibrination. Prepn. is by treatin
ial with satd. steam at 160-230°C for 2-4 hrs. to
-ate the raw material; lixiviating the disintegrate
ial with an aq. soln. of alkali to leave a fibrinous
and subjecting the residue to acid or enzymatic hy
under conditions to produce glucose. Pref. lixivi
carried out successively with water, then with 0.
NaOH soln.

Glucose is produced to a high degree of purity
cellulose-contg. materials, esp. hardwoods, stra
sse, grain husks, corncob residues and maize st
18.7.77 as 816463 (7pp931).

See Also

D16 DS 2017590 D16 SU 627761

D18: SKINS; HIDES; LEATHER; TOBACCO

GALL- ★ D18 54504B/30 ★BE -873-598
Catalyst for oxidn. of carbon mon:oxide to di:oxide - esp. in tobacco smoke, prepd. by impregnation of support using water and organic solvent
GALLAHER LTD 26.05.78-GB-023527 (20.01.78-GB-002391)
E36 H06 P15 (19.07.79) A24d B01j C01b

The prepn. comprises impregnating a microporous support material, having average pore diameters below 30°A, with a substance capable of providing a catalytically active cpd. in a mixture of water and an organic liquid lowering the surface tension of the soln.

The catalyst is used in the oxidn. of CO to CO_2, e.g. in automobile exhausts and esp. in a filter for use in a prod. for smoking. It is effective at low temps. and the method ensures a more uniform distribution of the catalytic cpd. than in previous techniques. 19.1.79 as 873598 (13pp597)

GALL- ★ D18 54505B/30 ★B
Catalyst for oxidn. of carbon mon:oxide to di:oxide - esp.
smoke, prepd. by impregnation of support with activated s
GALLAHER LTD 19.01.79-BE-873599 (20.01.78-GB-0023
E36 H06 P15 (19.07.79) A24d B01j C01b

The catalyst is prepd. by creating in a solid supp
erial with hydroxyl groups, surfaces actuated by
ency of hydroxyl groups. The surfaces thus activ
then contacted with a soln. of a substance capable
ding a cpd. with catalytic activity. The expressi
faces activated by a deficiency of hydroxyl groups
replaced by" activation by creation of Lewis acid
The pref. methods for creating the activated surf
by heating or grinding.

The catalyst is used in the oxidn. of CO to CO
automobile exhausts and esp. in a filter for use i

t activity at low temps. e.g. 15-80°C. 19.1.79 as
9 (18pp597)

★ D18 54506B/30 ★BE -873-600
ng product contg. catalyst for oxidn. of carbon mon:oxide - of
ed activity and catalytic redox system
LLAHER LTD 20.01.78-GB-002392
H06 P15 (19.07.79) A24d B01j C01b
roduct for smoking or a filter for the same compri-
catalyst for the low temp. oxidn. of CO to CO_2, which
sts of a support bearing at least one catalytically ac-
netal in elemental Cr cpd. form. The catalyst shows
tivity on a gas mixture of 74% N_2, 13% O_2, 10% CO_2
% CO in a standardised test of 60-100% after 10 pass-
at 25°C. A further product as above has an activity
-100% after 3 passages and 30-100% after 10 passages
bacco fume also contg. moisture. A further embodi-
comprises a catalyst consisting of a support bearing
a cpd. thereof and another metal or cpd. from noble
ls, transition metals and metals of Groups VI, VII
VIII.
further catalyst as above provokes the oxidn. by a
mechanism with water intervening. A catalytic re-
ystem comprises a support with two catalytic cpds.
d. by saturation of the support with a part or all of the
cpd. or a cpd. giving the 2nd cpd. on heating, follow-
a minor deposition of the 1st cpd. or a cpd. giving it
eating.
he catalysts have excellent activity at low temp. and
have excellent stability to moisture. 19.1.79 as
00 (22pp597)

/ ★ D18 54567B/30 ★DL -135-334
oving hair or bristles from hides and skins in leather mfr. - via
y drum contg. circular row of chafing bars
ICKLICH W 04.03.77-DL-197670
(02.05.79) C14b-15
plant consists of a rotating drum which has an internal
ular wall assembled from equispaced bars (a) which
a square cross-section and remain in the drum. The
ers of bars (a) facing the axis of the drum are pref.
d with chafing rails (b) formed by plastic inserts. Sta-
ed webs are pref. located between bars(a) to provide
gid structure, the webs consisting of short round bars
and the drum pref, has a charging door and liq. drain-
doors on its periphery.
sed esp. in the prodn. of leather, where the drum pro-
s a simple, mass prodn. process. 4.3.77 as 197670
1144)

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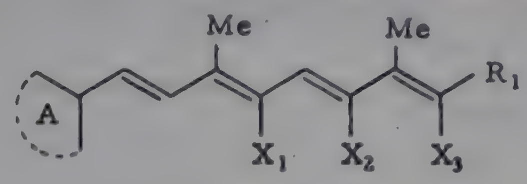
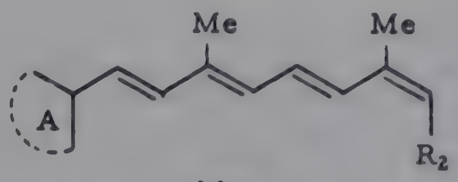
3 ★ D18 54767B/30 ★DT 2801-817
nent preparations for (imitation) leather dressings - contain
ylate copolymers as binders (BE 17.7.79)
AYER AG 17.01.78-DT-801817
A82 E37 F08 (19.07.79) C09b-67 D06n-03/08 D06p-03/32
ment preparations contain 2-70 wt.% (in)organic pig-
nt dispersed in a soln. of 10-49% water-insoluble cop-
mer in organic solvent. The copolymer is made from
60 wt.% ethyl acrylate, 30-50% methyl methacrylate
5-15% oxyethyl (meth)acrylate, at 50-170°C in pres-
e of an organic per cpd. or free radical donating azo
. in an organic solvent.
The preparations are universally applicable to all types
leather without adversely affecting properties, e.g. wet
dry cracking strength or low temp. resistance. Sepn.
pigment is prevented, and the films obtd. on drying are
rmoplastic, with softening pt. -5 to 25°C, non-tacky
d with good hardness and elasticity. 17.1.78 as 801817
5pp195)

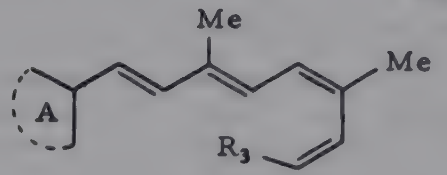
3A- ★ D18 54892B/30 ★EP ---3-064
oduction of vitamin/A analogues into respiratory tract - by
luding them in capsules contained in a cigarette
RABAM LTD 07.12.77-US-858295
B05 P15 (B03 B07) (25.07.79) A24b-15/04 A61k-09/72
S: E(BE, CH, DT, FR, GB, LU, NL).
tural or synthetic analogue of vitamin A is introduced
o the mouth and respiratory tract of a smoker by
cating in at least the mouth end of a cigarette having a
tobacco charge a heat or pressure rupturable capsule(s) contg. a vitamin A analogue of formula (I) - (III):



(I)

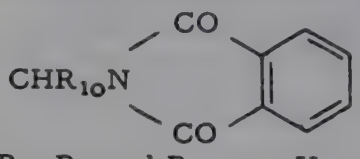


(II)



(III)

(ring A is a 5- or 6-membered mono- or di-unsatd. or aromatic hydrocarbon ring opt. including N or O in the ring and opt. substd. by halogen or lower alkyl, alkoxy, alkoxyalkyl or acyl;
X_1=X_3 are H or one may be halo;
R is CHO, $COOR_1$, R_2OCOR_3, $CONHR_4$, R_5OR_6, R_7NHCOR_8, CHNOH, $CHNNHCOR_9$,



or $COPO_3$;

R_1, R_4 and R_{10} are H or lower alkyl;
R_2 is 1-20 C alkyl;
R_3 and R_5 to R_9 are lower alkyl).

The capsule(s) is ruptured immediately before or during smoking to release the analogue as tiny droplets or an aerosol for exposure to the smoke passing through the cigarette, so that the analogue is carried into the lungs.

The analogue is introduced directly on to the respiratory tract mucosa for treating retinoid deficiencies and for preventing or treating cancers, esp. those caused by the constituents of cigarette smoke. Effective dosages are lower than the high oral dosages needed to achieve the same effects and with which toxic side effects may be observed. Esp. valuable for the treatment of lung cancers.

28.11.78 as 200319 (32pp1248).
(E) ISR: GB1204018; US3667478; FR2085043; FR2101391; US2460284; US3047433; FR1173793.

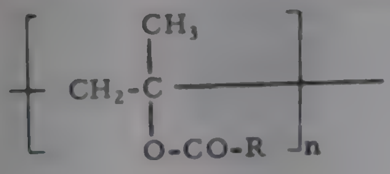
CHFS D18 90859X/49 =GB 1549-028
Simultaneous soaking, cleaning and degreasing of hides - in 2 phases with incomplete soaking and short bath in first phase
CHEM FAB STOCKHAU 23.05.75-DT-522902
*A97 (25.07.79) *DT2522-902 C14c-01*

Haired raw skins are cleaned, defatted and softened without removing the hair by completely cleaning and defatting, and partially soaking in a rotating vessel in a first short float contg. ⩾ 1 nonionic and/or ⩾ 1 anionic surfactant. The soiled first float is then replaced by a similar vol. of water to effect the rinsing of the skin. The skins are then completely cleaned, defatted, and soaked in the rotating vessel in a second short float contg. the same or different non-ionic and/or anionic surfactants.

System overcomes disadvantages of long processing times, use of ⩾ 2 different mechanical devices, need to transport the skins from one device to the next, and the large amts. of waste water with high surfactant, dirt and fat contents. 21.5.76 as 021090 (6pp934).

PHIM ★ D18 55674B/30 ★NL 7900-160
Tobacco contg. non-volatile polymer of isopropenyl ester - which liberates carboxylic acid as aroma during smoking
PHILIP MORRIS INC 10.01.78-US-868562
A97 E19 P15 (12.07.79) A24b-15/04

A smoking material contains ⩽ 1 wt.% of a ply-isopropenyl ester of formula (I), where R is a 1-10C aliphatic, aliphatic, alicyclic or



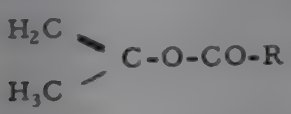
$$\left[CH_2-C(CH_3)(O-CO-R) \right]_n$$

(I)

aromatic hydrocarbyl gp., and n = 2-200 (5-50). (I) liberates a carboxylic acid which is an aroma.

(I) is not migratory or volatile in tobacco at room temp. The aroma given off does not mask or counteract the natural tobacco aroma.

(I) pref. has a mol. wt. of 200-20,000 (1000-5000). R is esp. a 1-6C aliphatic gp.; (m)ethyl, (iso)propyl, (iso)-butyl or pentyl are claimed gps. Alicyclic R gps. are esp. 3-10C, whilst aromatic R gps. are 6-10C. (I) may be prepd. by polymerisation of an ester of formula



$$(H_2C)(H_3C)C-O-CO-R$$

(II)

Homopolymerisation is at 20-100°C in presence of a free-radical catalyst, e.g. a peroxide or azo cpd. , and opt. an accelerator, e.g. a Co pcpd. or amine. Polymerisation is in suspension using a suspending agent such as methylcellulose or polyvinyl acetate. 9.1.79 as 000160 (14pp510)

ROHM D18 07492W/05 =US 4160-642

Increasing solubility of acid or metal chelate dyes - in org. solvents, with tert. hetero-amines, for poly-urethane coatings for leather

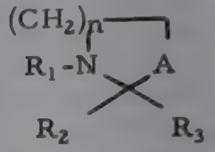
ROHM & HAAS CO 16.07.73-US-379530 (17.09.75-US-614120)

*A82 E19 G02 +P42 (A25) (10.07.79) *BE-817-672 D06p-03/32*

Solubility of a hydroxyazo metal chelate dye in an e solvent free of active H atoms (as determined by Z noff method) comprises treating the dye with a copo of oxazolidinyl ethyl methacrylate and 1 monome

Pref. dyes are Solvent Yellow 88, SolventOrang Solvent Brown 42, Solvent Brown 43, Solvent Blue 4 vent Black 29,. Compsns. are useful for dyeing le and plastics esp. reactive polyurethane system.

Also claimed in compsn. useful in dyring compr a soln. of (a) a metal chelate or acid dye; (b) a tert of formula (I)



(I)

(where A is O or S; R_1 is or gp; R_2 is H or alkyl; R_3 is H benzyl or alkyl; or CR_2R_3 fo 5-6 membered hydrocarbyl and n = 1-2) copolymerised monomers $CH_2{=}CR_7{-}COOR_8$ H or lower alkyl, R_8 is radical) and $CH_2{=}CR_9R_{10}$ (w R_9 and R_{10} are H, halo, lower alkanoyloxy, CN, CH Ph, $CONH_2$ or epoxy; and (c) solvent free of active (Zerewitnoff method) selected from ketone, ester, aliphatic or aromatic hydrocarbon, or excess of the amine. 17.9.75 as 614120 Div ex. 3954397 (7pp963)

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL ; TOILET PREPARATIONS

★ D21 54583B/30 ★DL -135-381
of oil-soluble surfactant - by partial sulphation of alcohol or
yalkylated alcohol or alkylphenol cpd.
FEL K 06.03.78-DL-203975
B07 E17 (A96 B04 B05) (02.05.79) A61k-09/10 B01f-17/02
c-139/10 C07c-141

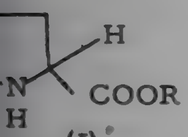
. of oil-soluble surfactants is carried out by part- ulphating alkanols, polyoxyalkylated alkanols and/or yalkylated alkylphenols to form a mixt. of the corre- kyl sulphates, polyoxyalkylated alkyl sulphates and/ yoxyalkylated alkylphenyl sulphates and the unreacted ng material.

e products can be used for the prodn. of cosmetic harmaceutical bath oils and creams. They are mis- with animal, gegetable, mineral and synthetic oils, good foaming power, and have good skin compatab-

ef. starting materials are 10-22C(esp. 12-16C) al- s, polyoxyethylated derivs. of such alcohols contg. esp. 1.5-3) moles ethylene oxide (EO), and polyoxy- ted alkylphenols contg. a 7-12C alkyl gp. and 5-10 EO. 6.3.78 as 203975(6pp367)

D21 50278T/32 =DS 2102-172
are agents - contg 5-pyrrolidone-2-carboxylic esters
OMAE K GMBH 18.01.71-DT-102172
*3 E13 (19.07.79) *DT2102-172 A61k-07/48*

care and treatment prepn. contains cpd(s). (I), where R is 8-30C satd. alkyl. (I) have sebaceous gland inhibiting activity, as well as capillary stabilising and antiinflammatory activities.


(I)

(I) can be prepd. by esterifying a 5-pyrrolidone-(2)-carboxylic acid (deriv) with an alcohol ROH in a sol- (e.g. benzene, toluene or chloroform, or excess al-) at ⩽ b.pt., in the presence of a strong acid (e.g. H_2SO_4) or acid-acting agent (e.g. thionylchloride or -dicyclohexylcarbodiimide; water removal can also fected using an acid (e.g. H_2SO_4, p-toluene sulphonic or reactive deriv. of 5-pyrrolidone-(2)-carboxylic (e.g. halide, anhydride).

lternatively cpd. $XCOCH_2CH_2CH(NH_2)COOR$ (where X H, halogen, alkoxy) can be intramolecularly cyclised eating at ⩽ 250°C, in the melt or a solvent opt. in the ence of an acid (e.g. HCl, H_2SO_4). Reaction can also ffected in the presence of acid-acting agents (as above). .71 as 102172(7pp913)

D21 55830W/34 =DS 2405-002
ollagen prodn from human tissue - treated to remove non-
al peptides and reduce risk of infection/rejection
OMMSDORFF H FA 02.02.74-DT-405002
*6 B04 (A11) (19.07.79) *DT2405-002 A61k-07/26 A61k-35/50*
7g-07

ble natural collagen is isolated from human placenta. placenta tissues are disintegrated with ice under ste- conditions and the material is stirred with cold brine the resulting solids are sepd. centrifugally. The solid xtd. with cold aq. urea (opt. contg. ascorbic acid) and rifuged and the residual solid is extd. with cold aq. lurethane and centrifuged. The solid residues are com- d and dialysed against tap water, the insol. material entrifuged off and dissolved in a dil. aq. soln. of a k carboxylic acid, The soln. is then satd. with NaCl pte. impurities and then freeze-dried or transferred soln. of 2-ketoglutaric acid and citrate buffer. The ds. are used to accelerate the healing of wounds, burns urgery, or for the treatment of rheumatics, arterio- erosis and similar conditions. 2.2.74 as 405002(4pp47)

KAOS D21 22819W/14 =DS 2443-646
Tooth-cleaning compsn. preventing formation of dextran in mouth - contg. N-acyl-amino-acids or their salts and sec. alkali phosphates
KAO SOAP KK 14.09.73-JA-104193
*E16 (E37) (19.07.79) *DT2443-646 A61k-07/22*

Dental cleansing prepn. contains an alkali salt of an N-(long chain acyl)-aminoacid, (0.1-5wt%); a water-soluble sec. phosphate, (0.2-10 wt%); and the usual carriers, diluents and additives. Pref. salts are alkali salts of N-lauryl, myristyl, palmityl, stearyl, oleyl, or linoleyl-sarcosine, -alanine, -phenylalanine, -leucine, -isoleucine, -methionine, -proline, -tryptophane, -valine, -serine or -glutamine. 12.9.74 as 443646(4pp47)

KUKI- D21 22259B/12 =DS 2741-072
Tablet-form cleaning agent for dental braces etc. - contg. antimicrobial agents and para hydroxybenzoic acid ester(s) to exert synergistic antimicrobial action
KUKIDENT KRISP K KG 13.09.77-DT-741072 (00.00.73-DT-312847)
*A97 (A25) (19.07.79) *DT2741-072 A61k-07/30*

Prepn. of dental cleansing agent in tablet form comprises mixing phosphates and/or polyphosphates, (5-25 wt%); carbonate and/or bicarbonate, (15-45 wt%); peroxide salts, (25-55 wt%); salts of weak organic acids, (5-15 wt%); surfactants, (0.5-1.5 wt%); ⩾1 bactericide; colouring; and PEG 4000-20000, followed by pressing into tablets at temps below the m.pt. of the PEG.

The prods. disperse in water to give pH 7-9. Disinfectants are 4-hydroxybenzoic acid or its esters, disodium decylenic acid ethanolamido-sulphosuccinate and/or imidazolidinylurea. The prods. are used to clean dentures and dental equipment. 13.9.77 as 741072 Add to 2312847(6pp47)

WIEL- D21 24110B/13 =DS 2741-277
Copper-free gold dental alloy - contains germanium-titanium or cerium Mischmetal as grain refiner
FA WIELAND T 14.09.77-DT-741277
*M26 (19.07.79) *DT2741-277 C22c-05/02*

Dental gold castings free from Cu comprise Au, (40-60%); Ag, (25-40%); Pd, (5-20%); In, (1-6%); and ⩾1 non-noble metal, esp. Ge, (0.01-0.1%), to enhance crystallinity, with m.pt. ⩾700°C below that of Ir or Ru. Also, Ti and/or Ce, and opt. strengthening components may be present. These alloys are used in the form of moulded half units. 14.9.77 as 741277(3pp47)

KELL/ D21 33440B/18 =DS 2759-504
Hair lotion and restorer - contg. oil of wine, e.g. in aq. alcohol
KELLERSCH J 03.11.77-DT-749166 (03.11.77-DT-759504)
*(19.07.79) *DS2749-166 A61k-07/06*

No further information has been published for this application. 3.11.77 as 759504 Div ex 2749166

UNIL ★ D21 54833B/30 ★DT 2900-721
Washing compsn. contg. detergent and deodorant - for washing textiles and for personal hygiene (NL 16.7.79)
UNILEVER NV 12.01.78-GB-001286
(D25) (19.07.79) A61k-07/32 C07d-03 C11d-03/48

Deodorant washing compsn. comprises non-soap detergent and a deodorant (I) of deodorant value 0.5-3.5 (pref. ⩾ 0.7, esp. ⩾ 1.2). Pref. the detergent is 0.5-99.99 wt.% and (I) 0.01-10 wt.% of the compsn. Compsn. may also include a soap and a germicide or Zn salt.

Used in toilet soaps, shampoos, textile-washing compsns. etc. to eliminate formation (or mask existing) body odour. The deodorant effect is transferred from textiles washed in these compsns. to the skin. 10.1.79 as 900721 (45pp1251)

UNIL ★ D21 54853B/30 ★DT 2901-069

Deodorant compsn. for treating skin - comprises deodorant of specified deodorising value and cosmetic carrier

UNILEVER NV 16.05.78-GB-019842 (13.01.78-GB-001479)
(D24 D25) (19.07.79) A61k-07/32

Deodorising compsn. for treating the skin contains a deodorant (I) of deodorant value 0.5-3.5 (pref. ≥0.7, esp. ≥1.2) plus other cosmetically-acceptable carriers for use as soaps or non-soap detergents. (I) is pref. 0.01-20 wt.% of the compsn.

For use on the skin and hair to prevent development of (or to mask existing) body odour.

Pref. (I) are those which reduce the partial vapour pressure of morpholine by ≥10% more than predicted from Raoult's Law. The carriers are conventional e.g. powdered absorbants or binders; softeners; propellants; solvents; thickeners etc. and compsns. may additionally contain humectants; preservatives; antioxidants etc.
12.1.79 as 901069 (42pp1251)

BLEN D21 50980B/28 =EP ---3-023

Tooth paste compsns. contg. zeolite - as polish which is non-corrosive to aluminium tooth paste tube

BLENDAX WERKE SCHNEIDER 22.12.77-DT-757290
*(25.07.79) *DT2757-290 A61k-07/16*

D/S: E(BE, CH, DT, FR, GB, IT, NL, SW).

Toothpaste compsns. are based on a polish and conventional ingredients. The polish comprises, at least predominantly, a zeolite-type alkali metal aluminosilicate of formula (I)

$$x(M.AlO_2).ySiO_2.zH_2O \quad (I)$$

(M is alkali metal or ammonium; x is 1-64; Y is 1-6 times x; z is 0-256).

Zeolite-type polishes are non-corrosive towards aluminium (e.g. in toothpaste tubes), have good compatibility with F cpds., and gives a good polishing action without being excessively abrasive.
6.12.78 as 101574 (14pp367).

(G) ISR: FR2211211; FR1047979; GB1476063; US2470906; FR-930740

UNIL D21 54833B/30 =EP ---3-172

Washing compsn. contg. detergent and deodorant - for washing textiles and for personal hygiene (NL 16.7.79)

UNILEVER NV 12.01.78-GB-001286
*(D25) (25.07.79) *DT2900-721 C11d-03/50 +A61k-07/32 C07d-03*

D/S: E(BE, CH, DT, FR, GB, IT, NL).

Deodorant washing compsn. comprises non-soap detergent and a deodorant (I) of deodorant value 0.5-3.5 (pref. ≥0.7, esp. ≥1.2). Pref. the detergent is used at 0.5-99.99 wt.% and (I) 0.01-10 wt.% of the compsn. Compsn. may also include a soap and a germicide or Zn salt.

Used in toilet soaps, shampoos, textile-washing compsns. etc. to eliminate formation (or mask existing) of body odour. The deodorant effect is transferred from textiles washed in these compsns. to the skin.
10.1.79 as 300039 (53pp1251)
(E) ISR: US3355388; FR2318265; FR2269924; DT2805768; NL7801695; FR2380341; BE-863773; DT2805767; NL7801694; FR2393847; BE-863772; FR2362210; NL7709180; BE-857834; DT 2736770.

AIRP ★ D21 54938B/30 ★EP ---3-186

Moist packaged towelette contg. polyvinyl alcohol binder - kept in contact with soln. which allows binder to dissolve when diluted

AIR PRODUCTS & CHEM INC 18.01.78-US-870552 (18.01.78-US-870551)
A81 F04 P28 P34 (A14) (25.07.79) A47k-10/16 A61l-15 D04h-01/64

D/S: E(DT, FR, GB, IT, NL).

Towelette comprises a sheet of non-woven fabric contg. a polyvinylalcohol binder which is in contact with an aq. soln. in a container. The soln. contains sufficient of a cpd. (I) to prevent the PVA dissolving, but when diluted with excess water will allow PVA to dissolve reducing the structural integrity of the towellette.

Pref. (I) is boric acid at ≥1 (3-5) wt.% on the soln., or a water-soluble salt (specifically 3-20 wt.% Na_2SO_4). The binder can include 80-99 wt.% PVA plus polyv tate or 10-40 wt.% PVA plus an ethylene-vinyl ace polymer.

Since the towels disintegrate in excess water th not block drains.
17.1.79 as 300077 (19pp1251).
(E) ISR: GB1510667; US3692725; US3886112.

MESS/ ★ D21 54954B/30 ★FR

Slimming gel or lotion for application with elastic ba contains vasoconstricting vegetable extracts, mineral s alcohol and ketone

MESSAC L E 19.10.77-FR-031410
A96 (22.06.79) A61k-07/48

Compsn. for application using an elastic bandage t up and slim comprises a liq. or gel contg. vasoco ing agent (I) of vegetable origin, mineral salts and mol.wt. alcohol and a ketone.

Pref. the compsn. contains 0.1-20 % (I).

It pref. contains 0.1-10% flavone complexes and % seaweed extract. Pref. a polyoxyethylene deriv. sorbitan is added as emulsifier. 19.10.77 as 0314

TWIN- ★ D21 54955B/30 ★FR

Cosmetic compsn. for soaking bandages to give slimming comprises sea salt, fucus extract, camphor, menthol fragrance, ethanol and water

TWINSBURG INVEST CO 24.10.77-FR-031979
(22.06.79) A61k-31 A61k-33/14 A61k-35/80

The compsn. comprises (per l.): 25g. sea salt; 10 fucus extract; 20g. camphor; 20g. menthol; 10 ml. fragrance; 635 ml. 97° ethyl alcohol and 310 ml. H which has been treated with permutite. Pref. it als tains 0.10 ml. of a light blue-green dye.

Bandages (pref. elastic) soaked in the compsn. applied to parts of the body to produce a slimming Application is for 45 mins. 24.10.77 as 031979 (3p

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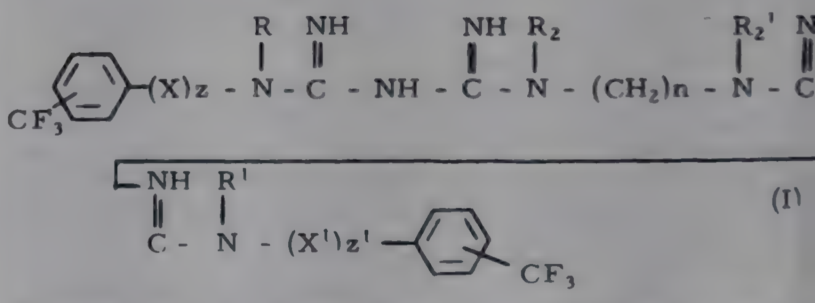
PROC D21 11095Y/07 =GB

Bis-trifluoromethyl-phenyl-(n')-biguanido-alkanes - which dental plaque with reduced tendency to stain teeth when u in dentrifices

PROCTER & GAMBLE CO 24.03.76-US-669930 (01.0 601244)
*B05 (25.07.79) *BE-844-764 A61k-07/22 A61k-31/1 129/16*

Bis-biguanide cpds. of formula (I) and their salts a



(I)

Where n is 1-4, X and X' are each 1-3C alkylene, z' are each 0 or 1, R and R' are each H, 1-12C alk 7-12C aralkyl, and R_2 and R_2' are each H or 1-2C

Pref. cpd. is prepd. as a water-soluble dihydro ide, diacetate or digluconate salt; n is 2, z and z' a each 0, and R, R', R_2 and R_2' are each H; and the t fluoromethyl gps. are in the meta- positions.

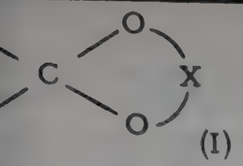
Cpd. is esp. used in oral compsns. such as toot and mouthwashes, and have excellent antiplaque pe mance and reduced tendency to stain the teeth. 30. as 031865 (9pp934).

HENK D21 01382Y/01 =GB

Cyclic acetal or ketal cpds. as anti inflammation agents - in prepns., esp. sun protection and sunburn prepns.

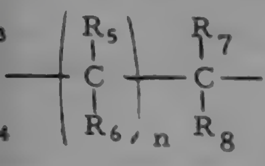
HENKEL KG AUF AKTIEN 14.06.75-DT-526675
*E13 (25.07.79) *NL7605-563 A61k-07/42 +A61k-31/3 317/10 C07d-319/06*

A cosmetic prepn. comprises a cyclic acetal or ke formula (I) as an inflammation inhibitor, where R_1 are each H, alkyl, alke


(I)

cycloalkyl, aralkyl or alkoxy-alkyl, such that $R_1 + R_2$ is 0-12 C.

X is an alkylene radical of formula (II), where R_{3-8} are each H, 1-8C alkyl or hydroxy-
l, and n is 0.1 or 2; such that ≥ 1 of radicals R_3, R_4,
d R_8 is 1-8C alkyl or hydroxymethyl, or that when R_3, R_4, R_7 and R_8 are each H, R_1 and R_2 must also be H.


(II)

Prepn. also comprises a carrier or diluent. Pref. (I) is present at 0.5-5wt.% w.r.t. total prepn.
epn. is used for the treatment of sunburn, esp. when
in admixture with conventional ultraviolet filtering
ances. 11.6.76 as 024194 (9pp931).

D21 18410Y/11 =GB 1549-326
ub-protective compsn. - contg. aminobenzoic acid, fatty
ol, nonionic polyoxyethylene surfactant and ethanol
HERICO LTD 08.09.75-US-611293
*6 E14 (25.07.79) *DT2553-648 A61k-07/44*

metically elegant, substantive, sun-protective aq.
sn. is prepd. contg. 2-10 wt.% PABA, 2-6 wt.% of
metically acceptable 12-18C fatty alcohol which is
at 20°C, and 0.5-2 wt.% of a cosmetically acceptable
nic polyoxyethylene surfactant of HLB value 9-18 .
t. ratio of alcohol to surfactant is 2-6:1 compsn.
er contains 45-65 wt.%, the balance of the vehicle
water. Pref. the surfactant is a polyoxyethylene
of a 12-18C alcohol. Fatty alcohol is cetearyl alco-

ompsn. is prepd. as a water-resistant skin protective
t against actinic radiation, which is used by even ap-
tion to the skin. 6.9.76 as 036895 (3pp931).

/ ★ D21 55113B/30 ★J5 4073-807
poo compsn. giving good foam stability - prepd. by
alisation of aq. soln. of carbonate, etc. with citric acid
ORIYAMA M 25.11.77-JA-140646
9 (E34) (13.06.79) A61k-07/06 C11d-10/02

ampoo is prepd. by the neutralisation of aq. soln.
g. Na hydrogen carbonate $NaHCO_3$, K hydrogen car-
te $KHCO_3$, Na sesquicarbonate $Na_2CO_3.NaHCO_3.2H_2O$,
kyl-N-carboxymethyl-N-hydroxyethylimidazolebetaine,
etable fatty acid-monoethanolamide and vegetable fatty
-diethanolamide with citric acid so that its pH value
omes 3-7.
The shampoo is nonstimulative and harmless. It has
ourable foaming power and high foam stability.
A typical shampoo was prepd. by dissolving in water
-80°C $NaHCO_3$ 1-10%, $KHCO_3$ 1-10%, $Na_2CO_3.NaHCO_3$
%, sodium citrate 0.1-5%, 2-alkyl-N-carboxymethyl-
ydroxyethylimidazolebetaine 1-60%, fatty acid-
noethanolamide 1-50%, and fatty acid-diethanolamide 1-
. 25.11.77 as 140646 (2pp170).

H- ★ D21 55213B/30 ★J5 4074-156
venting staining of curling iron etc. with permanent wave lotion
applying to hair and/or iron a liq. compsn. contg. lecithin, oil
water
KASHIWA KAGAKU KOGY 24.11.77-JA-139911
P24 (14.06.79) A45d-07/06 A61k-07/09

thod comprises applying to hair (and/or curling irons,
.) a liq. formulation contg. (a) 2-64 wt.% of lecithin,
0.4-76 wt.% of oil and (c) 20-97.6 wt.% water. The
thod is used for protecting curling irons, clips, brush,
. from staining with permanent wave lotion, etc.
In an example, the liq. compsn. is prepd. by mixing
pts. commercial soybean phospholipid (composed of 75
.% of lecithin and 25 wt.% of soybean oil) and 20 pts.
. of soybean oil at 50°C, and emulsifying the mixt. in
pts. of water maintained at 40°C. To the resulting
nulsion, 0.05 pts. of sodium dehydroacetate and 0.1 pts.
perfume was added. 24.11.77 as 139911 (3pp173).

ASAH ★ D21 55340B/30 ★J5 4074-886
Microsphere polymer used as filler for cosmetics and pharmaceuticals - produced by UV irradiation of monomer droplets obtd. by cavitation induced by ultrasonic sound
ASAHI CHEMICAL IND KK 28.11.77-JA-141553
A82 B07 G02 (A96 A97 B04) (15.06.79) C08f-02/46 C09d-05

Microsphere polymer is produced by irradiating sprayed monomer droplets with UV rays. The monomer droplets are prepd. by cavitation induced with ultrasonic. Microsphere polymer is useful as a filler for cosmetic and pharmaceutical prods. and as raw material for powder paint.

In an example, a monomer soln. was prepd. by mixing styrene 100, divinylbenzene 10, benzoylperoxide 1, and benzoin 0.5 pts. Monomer spray was formed by ultrasonic energy and then delivered to a zone where UV rays are irradiated. Solidified microsphere polymer was collected by a glass cloth. The sphere was 0.1-1.0μm in dia. The resulting prod. gave smooth feeling to the skin when applied together with vinyl acetate latex. 28.11.77 as 141553 (4pp).

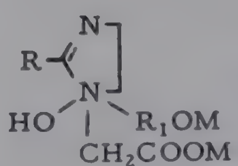
TOSE ★ D21 55378B/30 ★J5 4075-192
Compsn. for preventing tooth corrosion - contg. a water soluble molybdenum oxide cpd.
TOYO SEIYAKU KASEI 28.11.77-JA-143118
E31 (15.06.79) A61k-05

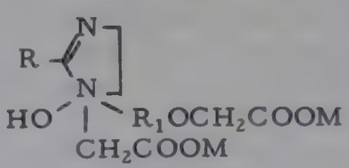
A compsn. for preventing corrosion of teeth contains 1-5 wt.% of a water-soluble molybdenum oxide cpd. as an essential component.

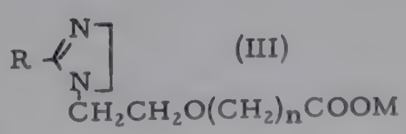
The water-soluble molybdenum oxide cpd. is water-soluble dioxotetrafluoromolybdate (VI) of formula $M_2MoO_2F_4$ where M is Li, Na, K or NH_4^+, molybdate $M2MoO_4$ or phospho-molybdate $P_2O_5.24MoO_3$ or $M_3(PO_4Mo\gamma_2O_{36})$. The pref. water-soluble molybdenum oxide cpd. is $Na_2MoO_2F_4$, $K_2MoO_2F_4$, $(NH_4)_2MoO_2F_4$, Na_2MoO_4, K_2MoO_4 or $(NH_4)_6Mo7O_{24}$. 28.11.77 as 143118 (6pp86).

NATT D21 36292W/22 =J7 9017-333
Hair shampoo and conditioner - contg. water-soluble acid addn. of aminoalkyl ester polymer, amphoteric detergent and surfactant
NAT STARCH & CHEM CORP 19.11.73-US-417260
*A96 E13 (29.06.79) *DT2454-840 A61k-07/06 C11d-01/88 C11d-03/37 C11d-10/02*

Hair shampoo contains an aq. soln., of, by wt., w.r.t. total soln., (A) 0.1-10% water-soluble acid salt of a non-quaternised aminoalkyl ester of a carboxylic acid polymer e.g. homo- or co-polymers of ethylenically unsatd. carboxylic acids or copolymers of one or more of these acids with > 1 of their 1-18C alkyl- or hydroxyalkyl esters and acid amides; (B) 1-25% amphoteric detergents, e.g. imidazoline derivs. having one of formula (I), (II) or (III).


(I)

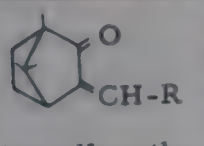

(II)


(III)

(where R is 8-18C alkyl; R_1 is 2-4C alkylene, M is alkali metal or H and n is integer 3-9), or (4) 8-18C alkyl- and 8-18C alkyl-amidobetaines or (5) N-8-18C-alkyl-β-aminopropionic acids, and (C) 0-20% nonionic and/or ionic surfactants, provided that when using several ionic surfactants they all belong to the same ionogenic class. 19.11.74 as 132471 (clg. 19.11.73-US-417260) C11d-10/02, 1/88, 3/37;A61k-7/06 (29.6.79) NAT STARCH & CHEM CORP (15pp)(J50089407)

MERE D21 27138T/17 =J7 9017-806
Uv absorbents for cosmetics - derived from camphor
MERCK PATENT GMBH 22.10.70-DT-051824
*E14 P34 (D22) (03.07.79) *BE-774-076 A61k-07/42*

U.V. absorbents for use in fine cosmetics contain at least one cpd. of formula:-
(in which R is p-tolyl or styryl) used as 0.3-5.5 wt.% pref. 1.0 to 3.0% of the



cosmetic. The absorbents give protection against burning of the skin by U.V. rays in the range 285-315 mm and protection against rays in the range 285-380 mm but allow the desired browning of the skin. The absorbents have good stability to heat and light and good solubility in paraffin oils. 22.10.71 as 083386 (clg. 22.10.70-DT-051824) A61k-7/42 (3.7.79) MERCK PATENT G.M.B.H. (4pp)(J47008650)

MIRA- ★ D21 B/30 ★RU --65-014
Mouth-wash compsn. - comprises ethanol, saccharin, aroma and alcoholic extract of Helleborus niger L
MIRAJ INTR COSMETIC 18.12.74-RU-080839
(30.11.78) A61k-07/16

FARB D21 70776A/40 =US 4160-754
Storage stable polymer gels based on aminoplast resins - useful as supports for perfumes and cultures, insulation, soil reinforcement, shock absorbers, etc.
BAYER AG 25.03.77-DT-713198
*A94 C04 (A21 D16) (10.07.79) *BE-865-304 +C08l-61/24*

Storage stable gels comprise a polymer matrix, a liq. dispersant embedded in it and opt. fillers or additives. The matrix is a polycondensn. prod. from aldehydes and aminoplast former, ≥30 wt.% of the latter having a mol. wt. of 200-10000 and contg. ≥1 of ether, thioester, acetal ester, urethane and carbonate functional gps.

Pref. the aminoplast form is a urea of formula $R(O-CO-NH-R'-NH-CO-NH_2)_n$ (where R is a residue of valency n contg. ≥1 ether, thioether, acetal, ester, esteramide and/or carbonate gp. and has a mol. wt. of 44-10000; R is a diisocyanate residue and n is 2-8).

The gels can be used as perfume carriers, as cushioning or padding, as binders, as substrates for hydrocultures, etc. 13.3.78 as 886316 (10pp393).

UNIC ★ D21 56219B/30 ★US 4160-775
Siloxane prepn. by reacting substd. allyl cpd. and organo:siloxane - and used as surfactant, foam stabiliser, wetting agent and in forming urethane foams
UNION CARBIDE CORP 28.03.78-US-890970
A26 F06 H07 (A25 A60 A87 A97) (10.07.79) C07f-07/08

Prepn. of an organofunctional siloxane contg. one or more monovalent gps of $-CH_2CH(R^\circ)CH_{3-m}X_m$ bonded to Si comprises subjecting a substd. allyl cpd. of formula (I) $CH_2{=}C(R^\circ)CH_{2-m}X_m$ (I) and an organosiloxane contg. Si bonded H atoms to an addn. reaction.

R° is monohydrocarbon; X is (cyano) hydrocarbonoxy, acyloxy, halogen, OH, cyano or a gp. $-O(ONR_2$, (where R is monovalent N-free gp, divalent hydrocarbon when both R gps. are taken together or H; when X is halogen, OH, CN or $-OCONR_2$, m is 1 and when X is hydrocarbonoxy, cyanohydrocarbonoxy or acyloxy, m is 1 or 2 when X is halogen, OH or CN, the substd, allyl cpd. is added incrementally to the organosiloxane.

The siloxane prod. is used as surfactants of foam stabilisers, in forming urethane foams, as wetting agent, emulsifier in aerosol shaving cream compsns, as textile fibre lubricants and as additives or intermediates for forming lubricants. Higher yields of prod. may be obtd. in more conc. from due to the low degree of isomerisation of (I) are required for reaction. 28.3.78 as 890970 (17pp966).

GENM ★ D21 56249B/30 ★US 4160-820
Chewing gum compsn. - for inhibiting the growth of, or reducing plaque in the oral cavity
GENERAL MILLS INC 28.11.77-US-855527
B06 E14 (D13 E32) (10.07.79) A61k-09/68

A chewing gum comprises 0.005-10 wt.% butylated hydroxyanisole (1), 0.001-15 wt.% monocaprylin (2), 0.01-5 wt.% of a zinc cinnamon oil, peppermint oil and/or spearmint oils, and 10-95 wt.% of a gum base (5).

The chewing gum may also contain 5-8 wt.% of x
sorbitol and/or mannitol, 0.01-10 wt.% glycerine a
wt.% dental abrasives and/or alkaline buffers. Pre
is cinnamon oil. A pref. chewing gum compsn. co
0.01-3% butylated hydroxyanisole and 0.05-5% mon
lin. Suitable zinc cpds. include zinc phosphates, s
chlorides, fluorides, oxides and/or fatty acids. 28
as 855527 (7pp954)

JOHJ ★ D21 56250B/30 ★US 4
Topical compsn. comprising glycerine soln. of zinc chloride
for treating gingivitis
JOHNSON & JOHNSON 27.02.78-US-881207
B05 (B06) (10.07.79) A61k-07/16 A61k-31/31 A61k-33/3

Gingivitis is treated by applying optically to the gun
compsn. comprising 50% of glycerol and 0.5-8% of
acceptable zinc salt which is soluble in glycerol.

Compsn. is useful for treating gingivitis as char
ised by inflammation, bleeding, and swelling, and i
be in the form of a mouthwash toothpaste, gel, soln
27.2.78 as 881207 (3pp957).

SUNZ D21 32401A/18 =US 4
Dentifrice contg. foaming agent - consisting of saccharose fo
ester, acyl aminoacid or salt and sodium mono:fluorophosph
SUNSTAR HAMIGAKI 29.03.77-JA-035998 (25.10.78-JA-1
*B05 E12 (E34) (10.07.79) *DT2745-267 A61k-07/18*

Dentifrice comprises conventional ingredients plus
-ing agent comprising a sucrose fatty acid ester, ar
-lamino acid (salt) and sodium monofluorophosphate
These cpds. are pref. present at 0.25-5, 0.1-0.5 a
0.76 wt.% respectively based on the total dentifrice

The ester may be a mixt. of mono-, di- and tri-
of sucrose with 8-20C fatty acid, the mixt. contg.
% monoester and pref. < 4 wt.% unreacted fatty aci
N-acylamino acid is e.g. N-lauroyl-N-methyl-β-ala

The foaming agent has low toxicity, allows more
ive prevention of tooth decay, and does not alter the
of food taken after brushing the teeth. 28.9.77 as 83
(6pp945).

KAOS D21 74356Y/42 =US 4
Transparent aq. hair rinsing compsn. - contg. quat. ammoni
nonionic surfactant, polyoxyethylene alk(en)yl or alkyl-
ether and solvent
KAO SOAP KK 29.03.76-JA-034764
*A96 E19 (A25) (10.07.79) *DT2710-468 A61k-07/06*
01/62

A transparent liq. hair rinsing compsn. is prepd. c
0.1-10 wt.% of quat ammonium salt, 0.1-10 wt.% o
oxylated alcohol or alkyl phenol 5-39 wt.% of a solv
and water.

Quat. ammonium salt has formula $[R_1R_2R_3R_4N]^{+}$
where R_1, R_2, R_3 and R_4 are each alkyl, hydroxyalkyl
-zyl such that 1-2 R gps. are 8-20 C (hydroxy)alkyl
the rest are 1-3C (hydroxy)alkyl or benzyl. X is ha
or 1-2C alkyl sulphate. Ethoxylated alcohol has for
$R_5(R_6)CHO(-CH_2CH_2O)-_nH$, where R_5 is 7-10C alkyl
alkenyl, and R_6 is 1-10C alkyl or alkenyl, such that
is 7-19C. Ethoxylated alkyl phenol has formuls R_7
$(CH_2CH_2O)-_nH$, where R_7 is 6-12C linear- or branc
chain alkyl. n is 1-7. When n is 0, such a cpd. con
<3 wt.% of second ingredient. Solvent is a lower n
-dric alcohol, polyhydric alcohol or glycol.

Compsn. has excellent transparency and stability
4.3.77 as 774257 (4pp931).

See Also

D13 J5 4073726 D13 US 4160452 D22 DT 2901
D22 SU 626694

D22 : BANDAGES ; DRESSINGS

D22 13392R/09 #DS 1660-442
on of pliable polyester threads
Z L D (KUR /) 18.09.67-CA-000398 (25.10.67-DT-660442)
*F01 (19.07.79) *CA-835-026 +D02g-03/46 D02j-01/22*
f surgical thread material, using drawn polyester
nt yarns, incorporates a heat drawing stage before
e twisted or braided together. The process elimin-
iffness in the material which would make it difficult
in surgical applications.
ore the material is passed through the heat drawing
it is pref. given a friction-free character immer-
a suspension of finest PTFE particles in water with
hout crosslinking agent. 25.10.67 as 660442(3pp249)

D22 76102U/50 =DS 2322-698
ation of closed objects - by steam and recycling sterilized
sate
YTON CASTLE LTD (DRA -) 12.05.72-GB-022379
*(19.07.79) *DT2322-698 A61l-01*
s in closed and sealed containers, such as in glass
s which are closed by an elastomer stopper, are ste-
l in a closed container. In a first stage, steam is ad-
and condensate extracted. In a second stage, the
nsate is cooled and is circulated through the contain-
cool the bottles. During a part of the first stage, the
nsate is also circulated for a time long enough to en-
he sterilization or a suitable treatment with a time/
rature correlation.
is produces an automatic sterilisation without re-
g steps to be taken by the attendant. 5. 5. 73 as 322-
pp39)

D22 88163V/51 =DS 2425-714
ng and sterilisation of soft contact lenses - by hydrogen
de treatment and catalytic decompn. of peroxide
RNER-LAMBERT CO 26.03.74-US-454141 (04.06.73-US-
809)
*+P34 (19.07.79) *NL7407-482 A61l-01*
ss for sterilisation of soft contact lenses comprises
nent with aq. H_2O_2 soln. in the presence of a cata-
ystem which slowly decomposes H_2O_2. Prefd. cata-
are metals of Groups IB, VIB, VIIB or VIIIB of the
dic Table, (esp. Pt, Pd, Ir, Rh, Re, Au, Ag, Cu,
Os, Co, Fe, Mo, W, Mn or Ce), or a lanthanide.
74 as 425714(6pp47)

D22 02148B/02 =DS 2729-776
sed bottle closed circuit cooling system - with collecting tank
ump valve to prevent contamination
EFENHOFER C KG 01.07.77-DT-729776
*(19.07.79) *DT2729-776 A61l-03*
d containers, such as glass bottles, which have been
lised in a steam steriliser are subsequently cooled
circulating sterile coolant, preferably water. A sep-
r downstream of the steriliser includes a large tank
a valve and a condensate trap/separator at the bottom
allows the contents of any burst bottles to drain off
e the coolant circuit is switched on.
nly the steriliser and the separator need now be cle-
after a burst, but not the complete coolant circuit
isting of a coolant container, a pump, a cooler and
ntire piping. 1.7.77 as 729776(4pp39)

★ D22 54781B/30 ★DT 2801-968
rial growth restricting vessel - for solutions with organic
ounds, contains noble metal coated packing
NSAW LURMAN SCHUT CO 18.01.78-DT-801968
(19.07.79) A61l-13
vice to stop the growth of germs and/or bacteria in
. contg. organic substances, is a pass-through
el with a packing of solids. The packing consists of
s, coated with a noble metal such as Au, Ag or a
Ag alloy, which offers to the passing soln. a large
ace area.
rovides an inexpensive way of promoting the biolog-
redn. of solns. contg. organic substances, e.g. fatty
cpds. in the mfr. of filaments and fibres. 18.1.78 as 801968 (11pp39)

UNIL ★ D22 54852B/30 ★DT 2901-068
Deodorising article for use on human skin - comprises a porous substrate impregnated with deodorant of specified deodorising value
UNILEVER NV 16.05.78-GB-019843 (13.01.78-GB-001479)
P32 P34 (D21) (19.07.79) A61f-13/16 A61k-07/32 A61l-15

Deodorant, porous article for use in contact with human skin comprises a porous (pref. fibrous substrate) impregnated with a deodorant having deodorising value (DV) 0.5-3.5, pref. ⩾ 0.7 esp. ⩾1.2. Esp. the deodorant is 0.001-10 wt.%. Pref. the article is a sanitary cloth, esp. a tampon.

Used in contact with skin or hair to prevent development of (or mask existing) odours. The articles can be in any form e.g. bandages, furniture upholstery, serviettes, socks etc. 12.1.79 as 901068 (24pp1251)

PROC D22 92426X/50 =GB 1549-012
Sanitary panties for women which reduce odours - by odour absorbing material impregnated in crutch region
PROCTER & GAMBLE CO 30.05.75-US-582531
*A96 E34 F07 P21 +P32 P34 (25.07.79) *BE-842-314 A41b-09/04*

Odours produced in a woman's crotch region are controlled, while enabling ventilation, by applying an odour absorbent cpd. to a fabric having uniform air permeability of ⩾100 cu. ft. /sq. ft. per min and $\frac{1}{2}$ inch H_2O pressure drop and suspending the fabric across the crotch region.

Pref. the fabric is of cellulosic fibre and the absorbent is $NaHCO_3$, $KHCO_3$ or a polyamine cpd. derived from ethylenimine. Vaginal odours can be controlled without direct application of chemicals to the body. 27. 5. 76 as 022136 (2pp964).

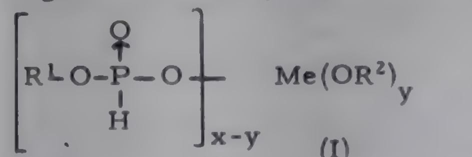
CONC D22 90245X/48 =GB 1549-023
Supporting open mouthed pouches during autoclave sterilisation - then sealing mouths by multiple jaw clamp with lost motion
CONTINENTAL GROUP 21.04.75-US-569938
*Q31 (25.07.79) *US3991-543 +B29c-27/02*

Autoclave unit for sealing flexible pouches after final evacuation of steam comprises opposed pairs of pressure bars relatively slidable from and to sealing position. The bars are pref. moved by a lost motion connection between adjacent bars and the bars slide along a pair of horizontal parallel rods, one being pivotable about a vertical axis.

The containers may be supported at the bottom on a platform and/or by releasable clips on the sides, the clips being adjustable to accommodate pouches of various sizes. 20. 4. 76 as 015843 (10pp1358).

GOLD D22 59688X/32 =GB 1549-053
Metallic phosphite monoesters - used as anticorrosive agents, fungicides and biocides
GOLDSCHMIDT TH AG 29.03.75-DT-513965
*C01 E11 M14 (D15) (25.07.79) *BE-839-390 C07f-07/22 C07f-09/14 C23f-11 +C10m-01/46*

Organometallic cpds. of formula (I) are claimed.



$$\left[R^1O-\underset{H}{\overset{\overset{O}{\uparrow}}{P}}-O- \right]_{x-y} Me(OR^2)_y$$

(I)

In (I), R^1 is $R^3 \text{-}[O\text{-}(C_2H_4O)z\text{-}C_2H_4]_p$ in which R^3 is 8-18C alkyl, 8-18C alkenyl, ⩾ 8C alkylaryl or ⩾ 8C alkanoyl, p is 0 or 1 but must be 1 if R^3 is alkanoyl and z is 0 or an integer. R^2 is H or -P(→O)H-OR^4 in which R^4 is 1-4C alkyl. Me is a metal or organometallic gp. x is an integer corresp. to the valency of the metal or organometallic gp. y is 0 or an integer < x provided that when R^3 is alkyl and p = O, Me is not Cd. Ba, Ca, Nz, Ni or Al.

Cpds. can be used as corrosion inhibitors (esp. in aq. systems), for protecting oils, as additives for plastics, as thickeners, as fungicidal and biocidal cpds. etc. 26. 3. 76 as 012330 (10pp992).

GENE D22 83517X/45 =GB 1549-242

Organo-siloxane gels from siloxane copolymer and liq. siloxane - with platinum vinyl-organo-siloxane catalyst, esp. for orthopaedic uses and electrical embedding

GENERAL ELECTRIC CO 14.04.75-US-567770
*A26 G02 (A83 A85 A95 A96) (25.07.79) *DT2616-057 C08l-83/04 +C08j-09/32 C08k-07/22*

A silicone gel reaction prod. comprises a mixt. contg. an organosiloxane of viscosity 10-10,000 centistokes at 25°C, a liq. hydrogensiloxane of viscosity ⩽10,000 centistokes at 25°C, and a platinum-vinylorganosiloxane catalyst in amt. sufficient to furnish ⩾ 0.1 ppm of platinum w.r.t. wt. of first two components.

Organosiloxane is a copolymer contg. units of formulae $R_2ViSiO_{0.5}$, $RViSiO$, R_2SiO and $MeR_2SiO_{0.5}$, where each R gp is Me or Ph, and Vi is vinyl, such that ⩾ 0.174mol% copolymer units are $R_2ViSiO_{0.5}$ and $RViSiO$. Hydrogensiloxane has formula $XRMeSiO(R_2SiO)n\ (RHSiO)mSiMeRX$, where X is H or R, n and m are each 0, a positive integer or a fraction, and ⩽25 mol.% of R gps are Ph. Catalyst is formed by reacting a platinum halide with a vinyl-contg. organosilicon cpd. in the presence of an organic solvent, plus the subsequent removal of solvent.

Gel can be used in gel pads for orthopaedic use. 13.4.76 as 015013 Add to 1373055 (7pp931).

TRAU= D22 23472A/13 #GB 1549-328

Internal bone prosthesis with binder contg. antiseptic - with reinforcement of metal and polymer meshes

TRAUMATOL ORTHOPAED (RITR=) 17.09.76-DT-641906 (16.09.76-GB-038431)
*A96 P32 +P73 (25.07.79) *DT2641-906 +B32b-05/12 B32b-15/04 B32b-27/02*

Bone endoprosthesis is made of ⩾1 net of chemically and biologically inert metal, ⩾1 net of chemically and biologically inert polymeric material, and a binder filling the spaces of the nets. The modulus of elasticity of the composite material is close to that of bone tissue.

In partic, the binder may comprise epoxy resin and a curing agent or polyethylene and graphite filler. Specifically, the elements of each net form parallelogram-shaped meshes with an acute angle of 60°. The elements of the metal and polymeric material nets may be aligned or offset angularly at an angle ⩽10° in parallel planes.

Used esp. for treatment of traumatic lesions of large bones of extremities, and for permanent or temporary replacement of bone defects following an operative removal of osseous neoplasms, in spontaneous osteolysis or after a considerable elongation of extremital bones. Uniform stress distribution between the components of the composite is ensured and its pref. vol. ratio is 1:3-5. The metal is e.g. Ti or its alloy. 16.9.76 as 038431 (12pp945)

CADB ★ D22 55005B/30 ★GB 2012-263

Solid adduct of glutaraldehyde or oxy-di:acetaldehyde - with 1,4-butane-di:sulphinic acid, dissolving in water to give sterilising solns.

CADBURY SCHWEPPES LTD 20.12.78-GB-049281 (05.01.78-GB-000314)
E17 (25.07.79) C02b-03/06 C07c-147/02 C07d-327 C07d-339

Solid prods. contg. ⩾ 1 adduct (A) of glutaraldehyde (Ia) or oxydiacetaldehyde (Ib) with 1,4-butane-disulphinic acid (II) are new. Pref. (A) are formulated as tablets, opt. together with a water-soluble alkali, esp. Na (bi)carbonate. (A) are made by reacting aldehyde with (II) in a solvent, esp. water, then collecting the ppte.

(A) dissolve in water (if alkali is present) or aq. alkali to give a sterilizing soln. by liberation of free aldehyde. Adducts are easier to handle and store than the free aldehydes. 20.12.78 as 049281 (5pp1251).

NITL ★ D22 55212B/30 ★J5 4074-135

Sticking plaster for supporting parts of the body - comprises flexible porous support, moisture- absorbing filler and thermoplastic styrene-isoprene block copolymer

NITTO ELECTRIC IND KK 24.11.77-JA-141268
A81 G03 P36 P73 (A12 A13) (14.06.79) A63b-71/12 B32b-27/12 C08l-23/20 C08l-25/08

Sticking plaster is prepd. by coating (a) flexible, porous support material with (b) sticking compsn. contg. as

ing filler in dry state and (b.2) 10-40 wt.% of a th tic block copolymer having the structure A-B-A (is thermoplastic polystyrene block having average of 5000-125000, and B is elastic polyisoprene blo average mol. wt. of 15000-250000, the polystyren accounting for 10-35% of total wt. of the copolyme

The sticking plaster is used for supporting son body to prevent injuries such as sprain. The plas improved sweat resistance. 24.11.77 as 141268 (

NITE- ★ D22 55339B/30 ★J5

Iodine chitosan addn. prod. - used to collect iodine fro brine and to prepare a deodorant-steriliser

NIPPON TENNEN GAS K 26.11.77-JA-141920
A97 C03 E36 (A11) (15.06.79) A01n-09/20 C08b-37/08

Iodine is absorbed by chitosan to form an iodine-c addn. product. This is used to collect iodine from brine, and to prepare a deodorant-steriliser. Chi obtd. by hydrolysing chitin with NaOH, and has a similar to starch. Chitosane is originally white in but chitosan-iodine addn. prod. is black.

In an example, chitosan was prepd. by treating ied carapace with conc. NaOH soln. Chitosan 10g. ped in 40ml. soln. contg. 4g. iodine and 4g. KI fo After filtration and drying, 14.5g. of addn. prod. obtd. which was found to contain ca. 3.4g. iodine. the addn. prod. liberated iodine very slowly, it co used as a steriliser. 26.11.77 as 141920 (4pp128).

SANR- ★ D22 55376B/30 ★J5

Treating malodorous gases from human waste - by contacting with water, introducing water-insol. compor combustion furnace and burning aq. ammonia prod. at low

SANREI REINETSU KK 26.11.77-JA-141988
J01 Q73 (J09) (15.06.79) F23g-07/06

Malodorous digesting gas from human wastes, etc treated by first forcibly contacting with water to s the water soluble components NH_3 and H_2O and wat soluble components CH_4 and CO_2. The water insolu components CH_4 and CO_2 are introduced into a com furnace to effect complete combustion at 1000-120 while the water soluble components NH_3 and H_2O, ammonia water, are introduced into the combustic ace, where CH_4 and CO_2 are burned to decompose ing at 700-900 (esp. 800)°C, at which temp. no NC generated in waste gas after heat decompsn. 26.1 141988 (2pp117).

SANR- ★ D22 55377B/30 ★J5

Burning malodorous gas from human waste etc. - by sep soluble and insoluble components, burning the components and using the heat to decompose the components

SANREI REINETSU KK 26.11.77-JA-141989
J01 Q73 (J09) (15.06.79) F23g-07/06

Less than 90% of the digesting gas is sent to a cor furnace, the rest of the digesting gas is contacted water to separate the water soluble components N H_2O and the water insoluble components CH_4 and (CH_4 and CO_2 are sent to the combustion furnace to completely at approx. 1000°C and the NH_3 and H_2(ing ammonia water, are introduced into the combu furnace to decompose by heating at 700-900(800)°(which the nitrogen (N) of ammonia is not converte nitrogen oxides in waste gas after heat decompsn.

The method can effectively and simply burn the ing gas into odourless, harmless waste gas withou thus preventing environmental pollution due to off odours. 26.11.77 as 141989 (2pp117).

MATU ★ D22 55424B/30 ★J5

Air purifier for removing oil and smoke - uses porous c drum contg. an absorbing bed of active carbon grains

MATSUSHITA ELEC IND KK 29.11.77-JA-143444
J01 (16.06.79) B01d-53/04

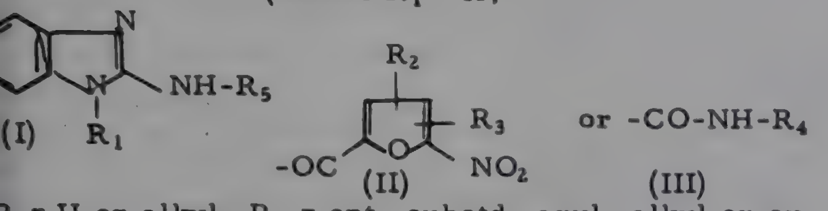
A device for absorbing oils and smokes produced kitchens in homes and factories, uses a deodoris such as active carbon grains charged in a rotary tatable by a motor drive. To avoid malodorous oi smoke rescattering from the device and to compl

drum shaped like a cylinder contains an adsorbing
 the bottom having holes for gas permeation. The
 composed of active carbon grains and contains a fil-
on which the active carbon grains are also laid, mov-
reely. The motor is operated to turn the drum until
ains are moved toward the side wall of the drum to
ct the air to be treated, with the bed. 29.11.77 as
4 (2pp26).

D22 67346W/41 =SU -626-694
Nitro-2-furoyl-amino)-1-carbamoyl-benzimidazoles -
ides used in medicine, agriculture and hygiene
INOIN GYOGYSZER 02.05.74-HU-CI1473
*2 C02 (D21) (29.08.78) *BE-828-679 A61k-31/39 C07d-
5/30*

. of formula (I) and their salts:

(where R_1 = H,



R_3= H or alkyl, R_4 = opt. substd. aryl, alkyl or cy-
kyl, R_5 = alkoxycarbonyl or a Gp. (II) with the condit-
hat at least one of R_1 and R_5 = Gp. (II) are fungicides
l in human and veterinary medicine, agriculture and
ene. They are particularly active against Fusarium,
diomycetes and Helminthosporium and may be applied
heat against Tellethia tritici, rye against Fusarium
le and sugar beet against Cerospore baticola and to
nfect seeds. They are used in cosmetics, disinfection
wimming baths etc.
G., Tot I., Bul. 36/30.9.78 15.4.76 as 131951 (3pp)

O= ★ D22 56104B/30 ★SU -627-966
d protection by autoclaving with hydrophobic liquid - involves
equent impregnation of the liquid under pressure
IOSC FOREST ENG INS (HOUS=) 01.04.76-SU-341292
03 F09 P63 (22.08.78) B27k-03/08

d is protected by autoclaving with a hydrophobic liq.
. oily antiseptic prepns. at least once under an excess
ssure of 0.05-0.6 MPa. for 10-30 min. The wood is
regnated with this liquid under pressure. The process
apid and used for posts, electricity transmission
, support components, sleepers, squared timber and
es.
Typically wood is dried at 120°C and 0.1 MPa for 3
. and impregnated at 130-120°C and 0.7 mlb for 0.33 hrs.
Rasev A.I., Kalachev G.P., Shusterman I.D., Bu. 38/
15.10.78 1.4.76 as 341292 (3pp1047)

DEGS D22 86111A/48 =US 4160-65
Deodorising liquid manure esp. of pigs and poultry - using
formaldehyde and peroxy cpds.
DEUTSCHE GOLD & SILBER 26.05.77-DT-723753
*E16 P34 +P11 (E12 E37) (10.07.79) *BE-867-389 C02b-01/3
C05f-03 +C05c-09*

Liq. manure is deodourised and harmful gases removed b
applying formaldehyde and a perocy cpd. to the manure in
the wt. ratio formaldehyde to peroxy cpd. (each on a 100
wt.% basis) of 1:3-3:1.

Pref. formaldehyde and peroxy cpd. are premixed with
each other prior to form an aq. soln. before mixing with
manure. Peroxy cpd. has a solubility in water of ≥10%
A 30-50% aq. formaldehyde soln. and 10-40% aq. peroxy
cpd. soln. is used to form premixture in the given wt. rat
-io.

Used esp. to facilitate the removed of irritating or har
-ful gases such as hydrogen sulphide, mercaptans and
ammonia from swine and chicken liq. manure used in the
fertilisation of fields. 2.5.78 as 902111 (7pp931).

NASI/ D22 10339A/06 =US 4160-852
Thermoplastic laminated sheet for sterile packages esp. sachets - is
supplied pre-sterilised ready for forming filling and sealing
NASICA J R L 01.06.77-FR-016772 (06.10.76-FR-030144)
*A92 B07 P34 Q32 +P73 Q31 Q34 (A96) (10.07.79) *BE-859-380
B32b-03/02*

Internally sterile composite laminate for sterile packing o
liq. or paste comprises a thermoplastic and another strip
sealed together peripherally and with facing surfaces ster
-ilised before sealing. Adjacent surfaces are readily separable by pulling at not more than softening temp. and the
thermoplastic strip after sepn. can be heat-sealed to itself or to another strip.

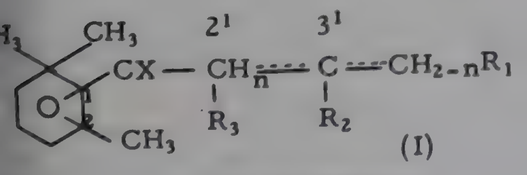
The first strip may be of expanded material and the oth
-er may be of cellulosic or metallic material or thermoplastics. There may be a thin sterile sepn. layer of silicone, thermally activated adhesive or microcrystalline
wax between the layers and adhered to one. 29.9.77 as
837750 (17pp1358).

See Also

D13 J5 4075376 D13 US 4160452 D13 US 4160829
D15 SU 626792 D21 J7 9017806

D23: OILS; FATS; WAXES

D23 82738R/44 =DS 2065-322
aturated cycloaliphatic ketones
IRMENICH SA 17.04.70-CH-005725 (07.05.69-CH-006976)
*05 C03 E15 (D13) (19.07.79) *BE-750-049 +C07d-303/14*



Cycloaliphatic unsatd. epoxy cpds of formula (I) are intermediates for known and new cycloaliphatic, unsatd. ketones used
perfumes and flavourants.
In the formula, a double bond is present in the 2^1 or 3^1
ition of the acyl side chain, represented by the broken
; n is 0 or 1; R_{1-3} are all H, or one is (m)ethyl; X is
r H and OH.
(I) can be prepd. by (a) epoxidising the corresp. 1,2-
atd. cpd. with a peracid in a buffered organic solvent.,
(b) oxidising cpd. I (where X is H/OH) with an O-contg.
 or Cr deriv. in an inert solvent in the presence of an
tiator. 6.5.70 as 065322 (+8.8.69, 14.4.70 -CH- 012065
005559)(913)

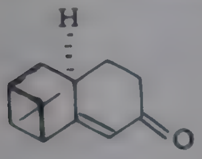
LABO D23 74309A/41 =DS 2824-125
Prodn. of partially sulphided nickel catalyst - for selective
hydrogenation of fatty acid cpds., esp. vegetable oils
LABOFINA SA 21.06.77-US-808624
*J04 (19.07.79) *US4118-342 B01j-27/02*

Prepn. of Ni catalyst contg. S, (1.5-8 wt%), comprises
treating previously reduced Ni (crystallite dimensions 1-20nm), with an organic S cpd. such as thiophene, alkylthiophenes, sulphides, disulphides and/or 1-40C alkanethiols and H_2 at 75-200° (pref. 125-175°) and 4.93-49.35
atm.

The prods. are used for selective hydrogenation and
isomerisation reactions. 1.6.78 as 824125(6pp47)

FIRM ★ D23 54856B/30 ★DT 2901-119
Cis-10,10-di:methyl-tri:cyclo-(7.1.1.0)-undec-2 en-4-one - used as odorant for improving organoleptic properties of perfumes, foods, beverages, pharmaceuticals and tobacco (NL 17.7.79)
FIRMENICH SA 13.01.78-CH-000360
B05 E15 P15 (19.07.79) A23l-01/22 A23l-02/26 A24b-15 A61k-07/46 A61k-47 C07c-49/54

New tricyclic ketone is cis-10, 10-dimethyl-tricyclo $(7.1.1.0^{2,7})$undec-2-en-4-one of formula (I).


(I)

(I) is an odourant useful for improving, augmenting or modifying the organoleptic properties of perfumes or perfumed prods, foodstuffs, beverages, pharmaceutical compsns. and tobacco prods. (I) has tobacco, hay, honey and herby odour notes, in some respects reminiscent of tonka beans, and is useful in the reproduction of tobacco-like, herby, musky, amber-like and even vanilla-like odours. 12.1.79 as 901196 (12pp280)

NISC ★ D23 55561B/30 ★J5 4076-506
Geraniol trans isomer prepn. - by cis-trans isomerisation of cis-nerol by photo irradiation in presence of sensitiser
NISSAN CHEM IND KK 30.11.77-JA-143575
E17 (19.06.79) C07c-29 C07c-33/02

Method comprises cis-trans isomerisation of cis-form unsatd. alcohol, nerol by photoirradiation in the presence of a sensitiser. Nerol is easily isomerised to geraniol with a small amt. of high b. pt. prods. without producing linaleol. Geraniol is useful as flavour, raw material of vitamins, etc.

The sensitisers, are e.g. acetophenone, benzophenone, naphtharine, benzanthracene, carbazoles, etc. The light sources are e.g. xenon lamp or mercury lamp. The reaction is carried out, if necessary, in hydrocarbon solvent, e.g. n-heptane or benzene. 30.11.77 as 143575 (2pp90).

TANA/ ★ D23 55567B/30 ★J5 4076-515
Unsatd. branched chain alkyl acetate(s) prodn. - starting from tert. amine(s) and maintaining the stereo-configuration of latter
TANAKA J 30.11.77-JA-143768
B05 E17 (19.06.79) C07c-67 C07c-69/14

Prodn. of unsatd. branched chain alkyl acetates (I) comprises reacting an unsatd. branched chain tert. amine (II) with chloroformate to yield an unsatd. branched chain alkyl chloride (III), and reacting the latter with an alkali metal acetate in the presence of a macrocyclic ether to give the acetate (I) maintaining the configuration of the tert. amine (II).

(I), including neryl acetate and geranyl acetate, are useful as perfumes or as intermediates in prepn. of perfumes or drugs, e.g. nerol, geraniol. Configurati
starting amines (II) is maintained without producin
eoisomers. 30.11.77 as 143768 (3pp52).

FUKO ★ D23 55624B/30 ★J7
Hard butter prodn. from palm oil - by removal of high
fraction, catalytic hydrogenation of remainder in pres
methionine, and fractional crystallisation of prod.
FUJI OIL KK 11.03.74-JA-028226
(29.06.79) A23d-05

Method comprises removing high-melting fraction
palm oil to give soft palm oil of iodine number ≥ 5
drogenating the oil in the presence of hydrogenation
alyst and methionine to give hardened oil with tran
tent ≥ 40% (determined as percent trielaidin in tot
glyceride), and removing higher- and lower-meltin
fractions by fractional crystallisation from soln.
11.3.74 as 028226 A23d-5/00 (29.6.79) FUJI OIL K
(4pp83)(J50121462)

FUKO ★ D23 55625B/30 ★J7
Hard butter mfr. from palm oil - by removing high melting
and hydrogenating in the presence of catalyst and methioni
FUJI OIL KK 11.03.74-JA-028227
(29.06.79) A23d-05

Method comprises removing high-melting fraction
palm oil to give soft palm oil of iodine number ≥ 60
hydrogenating the oil in the presence of hydrogenati
alyst and methionine to give hardened oil with trans
tent of ≥ 50% (determined as percent trielaidin in t
triglyceride). 11.3.76 as 028227 A23d-5/00 (29.6.
FUJI OIL KK (4pp83)(J50121463)

HETO ★ D23 55888B/30 ★SU
2-Methyl cyclo-tetra:decanone prepn. - by catalytic hydrog
of 1-morpholino-2 methyl cyclo-tetra:decenone in benzene
HETEROORG CPDS AS USSR 25.04.77-SU-479415
E15 (17.08.78) C07c-45 C07c-49

2-methyl-cyclotetradecanone (I) is produced from 1
pholino-2-methyl cyclotetradecen-1-one-3 (II) by ca
hydrogenation of (II) over Raney nickel (III) in hexa
at 100-150 °C and hydrogen pressure of 50-150 atm
The starting (II) is obtd. from cyclododecanone.

The modified method offers the advantages of a
and shorter route for the synthesis of (I) which is u
as a perfume with a musky odour.
Zakharkin L.I., Pryanishnikov A.P., Guseva V.V.
Bul. 37/5.10.78 25.4.77 as 479415 (2pp48)

See Also
D13.J5 4073726

D24: SOAP; SOAP DETERGENTS

UNIL ★ D24 54834B/30 ★DT 2900-722
Deodorising textile washing compsn. - contg. soap, deodorant, builder and bleach (NL 16.7.79)
UNILEVER NV 12.01.78-GB-001285
(19.07.79) A61k-07/32 C11d-03/48 C11d-09/50 C11d-10/04

Deodorising washing compsn. comprises a soap, a deodorant (I) having deodorising value 0.5-3.5 (pref. ≥ 0.7, esp. > 1.2), and other additives including ≥1 of non-soap builder and bleaches.

The soap is pref. 1-99 wt.%; (I) 0.01-10 wt.% and the other additives 0.99-98.99 wt.%. Pref. builders are inorganic phosphates and alkali metal (bi) carbonates, borates and silicates; pref. bleaches are perborates and percarbonates. Compsn. may also contain anionic, nonionic, cationic, amphoteric or zwitterionic non-soap detergents.

Used for washing textiles. Textiles washin in the compsn. suppress body odour. The compsns. are formulated as powder, liquids etc. 10.1.79 as 900722 (36pp1251)

UNIL D24 54834B/30 =EP
Deodorising textile washing compsn. - contg. soap, dec
builder and bleach (NL 16.7.79)
UNILEVER NV 12.01.78-GB-001285
*(25.07.79) *DT2900-722 C11d-03/50 C11d-09 +A61
C11d-10/04*
D/S: E(BE, CH, DT, FR, GB, IT, NL).

Deodorising washing compsn. comprises a soap, a
ant (I) having deodorising value 0.5-3.5 (pref. ≥ 0.7,
≥1.2), and other additives including a non-soap bui
or bleaches.

Used for washing textiles. Textiles washed in th
compsn. suppress body odour. The compsns. are fo
lated as powder or liquids, etc.
8.0; 10-undecen-1-al 0.3, and vetiver oil 2.0.
10.1.79 as 300038 (44pp1251)
(E) ISR: DT2047030; US3779932; US3849326; DT2

D24 14467T/09 =J7 9017-762
oaps - contng tallow soap and synthetic detergent, for good l
EVER NV 18.08.70-GB-039809
*(D25) (03.07.79) *BE-771-491 C11d-10/04 +C11d-01/12*
l-09/02

of toilet soap contain a tallow soap and 3-40% pref.
(by wt. of soap and detergent) of a synthetic deter-
nich includes: (I) a 4-12C hydrocarbon chain in
a maximum of 10C are in the linear chain; (II) a
l chosen from amido, alkylamido, amino, alkyl-
and ester, (III) a sulphate or sulphonate function of
ali- or alkaline earth metal, NH_4 or substitutes NH_4, separated from (II) either by a benzene ring or 1-3C substituted by alkyl or alkylcarboxy radicals, and (IV) 8-18C inclusive.

The soaps, pref. contains up to 25% of super fatty agent, preferably 12-hydroxy stearic acid. The soaps give a good, creamy lather. 18.8.71 as 062873 (clg. 18.8.70-GB-039809) C11d-10/04, 1/12, 9/02 (3.7.79) UNILEVER, N.V. (9pp)(J47005033)

See Also

D21 DT 2901069

D25 : OTHER DETERGENTS

D25 54534B/30 ★BE -874-982
ng tablets for cleaning lavatories - from powder mixt. contg.
ant and binder
ES GROUP LTD 21.03.78-GB-011218
P34 Q42 (16.07.79) A61p E03d

blets are prepd. by mixing (A) 5-90% of ⩾1 surfact-
(B) 0.5-75% of ⩾1 binders consisting of a clay or
c polymer which is a water-soluble gel or is water-
rsible; (C) 0-20% of ⩾1 colourants or pigments; (D)
of a solid or liq. perfume; (E) 0-20% of ⩾1 germi-
fungicides and/or Cl_2-releasing cpds. and (F) 0-75
eutral water-soluble filler(s), water-softening or
ing agent(s), water-solid solid acid(s), water insol.
er(s) ⩽ 50% of the mixt., and lubricant(s) ⩽ 30%
mixt., to form a free-flowing powder which is then
ressed to form a tablets. The tablet is placed in the
-flush reservoir.

e tablets are used for cleaning water-closets and
s. The blocks are easier to prepare than previous
s prepd. from a molten prod. They are also more
tant and have a greater stability to higher temps. and
lities. 21.3.79 as 874982 (19pp597)

★ D25 54592B/30 ★DL -135-398
ng and cleaning compsn. esp. useful for textiles - contains 1-
ethane-1,1-di:phosphonic acid, surfactant and alkali
LF F 01.03.78-DL-203890
(02.05.79) C11d-01/34 C11d-03/36

ompsn., esp. for textiles, contains as active ingre-
≯40% 1-aminoethane-1, 1-diphosphonic acid (I)
$C(PO_3H_2)_2-NH_2$ (I) as well as ≯10% alkaline material
≯20% anionic surfactant (or its mixt. with a nonionic
ctant).

itable surfactants are pref. alkylsulphonates and the
sn. can also contain other usual detergent additives,
cellulose derivs., brighteners or perfumes.

ves better cleaning effect and higher binding capacity
a than compsns. contg. Na tripolyphosphate (II) and
rborate (III). 2.5.79 as 203890(5pp1251)

D25 21418U/16 =DS 2149-251
ng up compsns - based on alkali silicates and poly-alpha
xyacrylic acid or its salt
NKEL KG AUF AKTIEN 02.10.71-DT-149251
*7 E34 (19.07.79) *DT2149-251 +C11d-03/37*

ing and cleansing compsn. for use in washing up ma-
s comprises a water-soluble alkali silicate, (90-5wt%)
oly-2-hydroxyacrylic acid of formula $[CH_2C(OH)(C-$
$]_n'$, where n is 5-500, pref. 10-100, or corresp.
r-soluble salts, (5-90 wt.%, such that the ratio of
i silicate to polymer is 1:0.5-18)

ompsn. may also contain alkali hydroxide or carbon-
(0-5 wt%); a weakly foaming nonionic surfactant, (0-
t%), such as alkylene oxide adducts with higher fatty
nols or alkylphenols, or polypropyleneglycol 900-4000;
ctive Cl cpd., (0-10 wt%); enzyme or enzyme mixts.,
wt%) with amylase, protease and lipase activity; and
mplexing agent (0-10 wt%), such as hydroxy-or aminopolycarboxylic acids, aminopolyphosphonic acids, hydroxy-alkanephosphonic acids or their salts.

A pref. active Cl cpd. is potassium dichloroisocyanurate. Pref. enzymes are obtd. from Bacillus subtilis and have amylolytic and proteolytic activity. The pH of the aq. soln. is 7-12, pref. 8-11. 2.10.71 as 149251(7pp47)

DEGS D25 34984A/20 =DS 2712-139
Sodium percarbonate particles coated with dehydrated sodium perborate - useful as storage stable bleaching agent
DEUTSCHE GOLD & SILBER 19.03.77-DT-712139 (11.11.76-DT-651442)
*E34 +P42 (19.07.79) *BE-860-762 C01b-15/10 C11d-03/10*

Sodium percarbonate particles comprise a sodium percarbonate core with a coating contg. Na_2SiO_3, sodium perborate of formula $Na_2BO_2 . 3H_2O . H_2O_2$. and other water-binding inert cpds., esp. Na tripolyphosphate, calcined soda and/or sodium percarbonate.

The active O content is pref. 8-15%. Prepn. of these particles comprises wetting percarbonate particles with aq. silicate, followed by treatment with a powdered mixt. of dehydrated perborate and other additives; the process is opt. repeated and excess water is removed. 19.3.77 as 712139 Add to 2651442 (4pp47)

NOVO ★ D25 54864B/30 ★DT 2901-339
Detergent compsn. contg. zeolite - and proteolytic enzyme prepd. by cultivating Bacillus species
NOVO INDUSTRI 17.01.78-GB-001890
(19.07.79) C11d-03/38

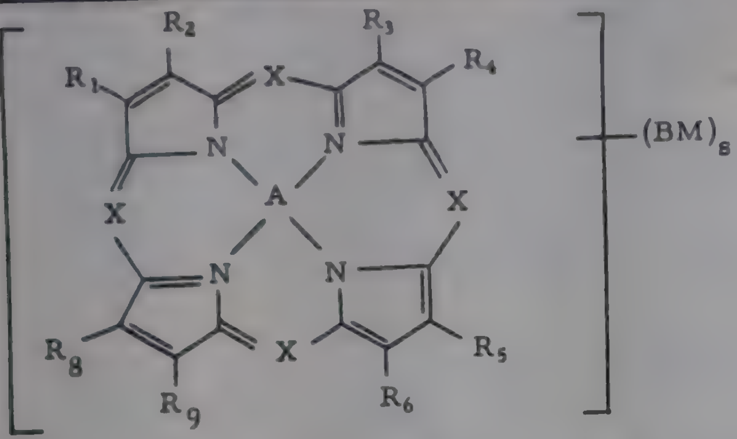
Compsn. comprises (a) 1-60 wt.% ⩾1 anionic and/or nonionic surfactant; (b) 0.40 wt.% bleach; (c) 5-80 wt.% washing auxiliary which contains a zeolite, and (d) ⩾1 protealytic enzyme (I). (I) has 80-100% of the max. activity at pH12 as measured by the Anson-haemoglobin method in presence of urea. It is prepd. by aerobic cultivation of an appropriate Bacillus strain on a nutrient medium of pH 9-11 while keeping the medium at pH 7.5-10.5 during the main growth phase.

Pref. compsns. contain 5-45 wt.% surfactant and 10-70 wt.% auxiliary, esp. a 1:2-2:1 mixt. of zeolite and phosphate.

Cleaning effect is equal to compsns. contg. only phosphate as auxiliary but polluting effect is less. The compsns. are suitable for use in relatively hard water, e.g. ⩾20° hardness on the German scale. 15.1.79 as 901339 (19pp1251)

PROC ★ D25 54921B/30 ★EP ---3-149
Washing and bleaching laundry compsn. - contg. surfactant and soluble porphin deriv. as photoactivator
PROCTER & GAMBLE CO 11.01.78-RP-020644 (11.01.78-RP-020643)
A97 E23 (A25) (25.07.79) C07d-487/22 C11d-03/39
D/S: E(DT, FR, GB, IT).

Detergent-bleach compsn. comprises a surfactant and 0.005-0.5 wt.% water-soluble photoactivator of formula (I):



(I)

(Each X is =N- of =CY-, Y and the R gps. are each H, (cyclo) alkyl, aralkyl, (hetero)aryl or alkaryl; or adjacent R's are joined together with ortho-arylene to give alicyclic or heterocyclic rings, A is 2 H atoms (on diagonally opposite N) or Zn^{2+}, Ca^{2+}, Cd^{2+}, Mg^{2+}, Sc^{3+}, Al^{3+} or Sn^{4+};
B, substd. into Y or R, is a solubilising gp.; (a) a cationic gp., when M = anion and s = 1-8; (b) nonionic $(CH_2CH_2O)_nH$; when M is absent, s = 1-8, ns = 8-50; (c) proximate anionic gps., when M is cationic and s = 3-8; (d) remote anionic gps., when M is cationic and s = 2-8. 'Remote' is > 5 C from porphine nucleus and 'proximate' $\not>$ 5 C).
Alkyl gps. opt. are interrupted by other chain-forming atoms.
Proviso: if B is sulphonate s is $\not>$ than no. of aromatic or heterocyclic substit. gps. and either sulphonate gps. are 'remote' or the no. of =N- gps. is 0-3.

Used in household laundry compsns. for washing and bleaching of fabrics (exposed to light and air) and for simultaneous removal of stains and fugitive dyes.
9.1.79 as 200012 (57pp1251).
(E) ISR:

FARB D25 23746Y/14 =GB 1549-225
Dispersants with pale colour and low salt content - are prepd. by condensn. of cycloalkanones with formaldehyde and bisulphites
BAYER AG 20.09.75-DT-542090
*A97 C03 F06 (A26) (25.07.79) *DT2542-090 +C08g-75*

In the prepn. of a dispersion of a material in water, a condensn. prod. of a cycloalkanone (I), formaldehyde and an alkali metal bisulphate obtd. by a condensn. reaction, in a molar ratio of 1:2-3:0.7-1:1, in aq. soln. is added. Pref. (I) is cyclohexanone or cyclopentanone. The reaction temp. for the condensn. prod. is 20-130°C.

The prods. are used for dispersing pigments, dyes, optical brighteners and plant protection agents. Prod. has slight colour, is stable to light and has low content of salt impurities. 14.9.76 as 038010 (3pp982).

WAKY- ★ D25 55112B/30 ★J5 4073-806
Cleaning compsn. for drain-pipe, lavatory etc. - comprising basic cpd. e.g. sodium borate, inorganic peroxide and decomposition aid
WAKYO KAGAKU KOGYO (FUJI) 24.11.77-JA-141240
E34 (13.06.79) C11d-07/18

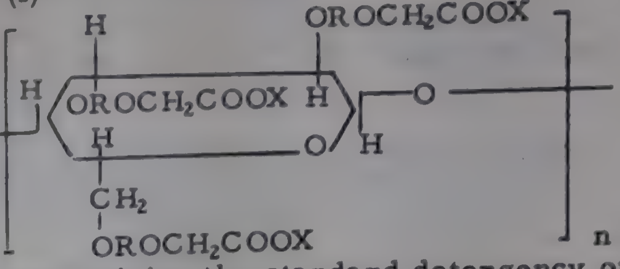
A cleaner is composed of base alkaline ingredient, inorganic peroxide and decompsn. aid for the inorganic peroxide. Compsn. pref. comprises 75-99 wt. % (pref. 85-99 wt. %) alkaline ingredient, 1-25 wt. % (pref. 1-15 wt. %) inorganic peroxide and 0.01-1 wt. % decompsn. aid for the inorganic peroxide.

Compsn. has high cleaning power, sterilising power, deodourising power, anticorrosiveness, high storage stability. It is suitable for use in cleaning of drainpipe of kitchen, lavatory, bath room, etc. 24.11.77 as 141240 (3pp170).

TAIH- ★ D25 55294B/30 ★J5 4074-807
Detergent compsn. contg. cellulose deriv. - enabling redn. of tri:poly:phosphate content
TAIHEI KAGAKU SANGY 25.11.77-JA-142075
A97 (A11) (15.06.79) C11d-03/37

Detergent compsn. contains a cellulose deriv. of formula

(I)



In (I) R
alkyl or
ing ethe
X is alk
The a
Na tripo
ate (ST
n (I) be reduc
maintaining the standard detergency of the produc
amt. of (I) is increased, the use of polyphosphate
unnecessary. 25.11.77 as 142075 (5pp126).

OHNO/ ★ D25 55295B/30 ★J
**Wax used for cleaning motor cars and as detergent f
comprises surfactant, phosphate builder, pulverous m
vehicle and waxy substance**
OHNO T 29.11.77-JA-143038
G02 (15.06.79) C11d-03/18

The wax comprises (a) fatty acid surfactant (anio
nonionic), builder (phosphate, 5-8 wt. %), vehicle
ous metallic oxide, 8-10 wt. %), and waxy substa
A mixt. of surfactant and builder is heated to
A waxy substance (any kind of animal, vegetable
al wax) is heated to the same temp. and emulsifie
oil-in-water emulsion, which is then solidified b
Pref. proportion of waxy substance is 20-70 wt.
prod. Obtd. fine particles of the waxy substance
have a strong negative charge by the effect of sur
29.11.77 as 143038 (2pp126).

TAKE/ ★ D25 55296B/30 ★J
**Pulverous detergent compsn. - contg. microorganis
decompose fats, oils, proteins, cellulosic materials
enzymes generated from the microorganism**
TAKESHITA M 26.11.77-JA-141139
A97 (D16) (15.06.79) C11d-07/42

Compsn. contains (a) microorganisms which dec
starch, fat and oil, proteins, cellulosic substanc
detergents or other domestic wastes, and (b) enz
which are generated from the microorganisms.
The detergent compsn. prevents adhesion of w
the inside surface of the domestic sewer pipes an
ates blocking of the pipes. Compsn. effectively d
food, waste laundry water, etc. contained in the
26.11.77 as 141139 (2pp126).

OLIN ★ D25 56220B/30 ★U
**Alkoxy-bis (trialkoxysiloxy)-silane surfactant - used in
compsns., as emulsifier and in urethane foam compsns**
OLIN CORP 29.06.78-US-920579
A26 E11 (A25 A60 A97) (10.07.79) C07f-07/18

A novel surfactant is of formula (I) $/(R'O)_3SiO/_2$-
$(OCH_2-CH(R'''))_n$-OR" (where n is 0-50; pref. 10-
15-30; R is H, alk(en)yl, aryl or aralkyl; R' is se
from the same gp. as R with the proviso that at l
majority of the R' gps. on each Si are sterically
alkyl gp. of >3, pref. 3-24C; R" is alkyl or alke
1-20 pref. 1-12, esp. 1-4C and R''' is H or methy
(I) is used in detergent compsns, as an emulsi
in urethane foam compsns. It exhibits favourabl
lytic stability due to the shielding of the Si atoms
sterically hindered substits. (I) may exhibit oil
solubility depending on the particular hydrophilic
present. 29.6.78 as 920579 (4pp966).

See Also

D21 DT 2900721 D21 DT 2901069 D21 EP --
D24 J7 9017762

CPI INDEXES

RTING PATENTEE INDEX (II)

y by section and overall, lists all current patents in ·ee code order and, within a given patentee, in earliest y date order. The first line gives patentee code, ;t priority date, patentee name, CPI classes and finally urrent patent number. The second line gives the first f the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L   A93  *DT 2602-948
   Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L   A93 L02(A21)  *DT 2602-947
   Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

CLASS INDEX (IV)

kly only. Headings are all the CPI es within the section to which an ng Bulletin relates, arranged in erical order. Posted under each class ing is a list, in country then patent ber order, of all basic or equivalent ments referenced or cross-enced under that heading.

```
    M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

SIC NUMBER INDEX (V)

kly by section and overall, lists all es by accession number. Each ing consists of the accession ber in bold, followed by the CPI on letters. There then follows a of all the family members, mencing with the basic and ning with the current week's nt. For each family member the week of issue is quoted, and a sign indicates that a multiple ity has been claimed.

```
09125-X ACDF
  US 3933-788    X05+
  CA  -990-674   X26
09192-X BC
  US 3933-948    X05
  BE  -832-423   X10
  NL 7509-762    X10
  DT 2535-514    X11
  SW7509-042     X15
  NO7502-837     X16
  SF  7502-292   X19
  ZA 7504-766    X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                              49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                         49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                              48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distingu accepted West German specifications (DAS) from unexamined applications (OLS) which are given the no DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined o present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

06.04.77 AS AZERB PHYS INST D16 E34 *SU -627-162
-dependent ribonucleic-acid-polymerase inhibitor - 55930B/30
21.10.77 ABADIE A A91 D15 J01 *FR 2406-608
n. of water for haemodialysis for e.g. renal haemodialysis -
1B/30
19.10.77 ABBOTT LABORATORIES A60 C02 D22 E13 =FR 2406-628
ericidal and fungicidal 2-methyl-1-naphthyl maleimide - 19938B/10
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =BE -873-630
Di:acyl or alkyl fortimicin B derivs. - 51130B/28
21.12.77 ABBOTT LABORATORIES B03 D22 E13 =BE -873-631
ubstd.-fortimicin A derivs. - 49528B/27
21.03.77 AS BELO INORG GEN CH D15 *SU -627-087
strial recirculating water treatment - 55859B/30
09.09.76 AGENCY OF IND SCI TECH A96 B04 D16 E14 (A35) =US
98
ng enzymes using irradiation method - 34456A/19
18.01.78 AIR PRODUCTS & CHEM INC A81 D21 F04 (A14) *EP ---3-

st packaged towelette contg. polyvinyl alcohol binder - 54938B/30
25.11.77 AKITA SEIREN KK D15 E32 M25 *J5 4074-272
enic removal from aq. soln. - 55246B/30
17.09.76 AKZONA INC A91 D17 E19 J01 =US 4160-675
noving organic impurities from aq. solns. - 23579A/13
07.04.77 ALZA CORP B07 C03 D13 (D21 D22) =US 4160-452
notically acting release device - 74740A/42
18.04.78 AMERICAN CYANAMID CO A91 D15 (A14) *US 4160-731
vatering lime disinfected sewage sludge - 56195B/30
A 14.01.78 AMF INC D18 =DT 2901-145
constituted tobacco from suspension of tobacco powder in adhesive -
10B/20
06.12.77 ANIC SPA A96 B07 D21 (B04) =DK 7805-490
e for dermatological ointments and creams - 44325B/24
06.12.77 ANIC SPA B04 D21 =DK 7805-504
ricariogenic dentifrice compsns. - 44323B/24
06.12.77 ANIC SPA B04 D21 =NO 7804-085
ticariogenic dentifrice compsns. - 44323B/24
06.12.77 ANIC SPA A96 B07 D21 (B04) =NO 7804-086
se for dermatological ointments and creams - 44325B/24
06.12.77 ANIC SPA A96 B07 D21 (B04) =SW 7812-512
se for dermatological ointments and creams - 44325B/24
06.12.77 ANIC SPA B04 D21 =SW 7812-513
ticariogenic dentifrice compsns. - 44323B/24
N 20.06.79 ANONYMOUS B04 D16 *RD -183-009
rification of interferon mRNA - 55681B/30
03.12.76 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24)
-135-486
pha-amino acid prodn. from amino nitrile - 38450A/22
21.10.77 ARIES EMILE SA D13 (D16) *FR 2406-393
ating milk prods. to reduce the lactose content - 54951B/30
28.11.77 ASAHI CHEMICAL IND KK A82 B07 D21 G02 (A96 A97
*J5 4074-886
crosphere polymer used as filler for cosmetics and pharmaceuticals -
340B/30
- 11.10.77 AUTOTROL CORP D15 *US 4160-736
rification of waste water using rotating trickling filter - 56200B/30

07.12.77 BASF AG D25 E19 =DK 7805-509
epn. of strongly alkaline aq. solns. of nonionic surfactants - 44034B/24
07.12.77 BASF AG D25 E19 =SW 7812-507
epn. of strongly alkaline aq. solns. of nonionic surfactants - 44034B/24
- 12.01.78 BAECK ENG D15 =DT 2900-930
pg. pig slurry into clean water and compost - 29788B/16
- 19.02.71 BANEXI BANQUE EXPAN D15 =DS 2206-324
mination of inustrial wastes - 53025T/33
09.12.74 BATTELLE MEMORIAL A97 D13 =DS 2458-650
w-calorie food mixt contg marshmallow compsn - 46337X/25
01.11.77 BEECHAM GROUP LTD B03 D16 *EP ---3-069
eudomonic acid C from Pseudomonas fluorescens fermentation -
894B/30
08.12.77 BEHAM H D15 =DK 7805-483
wage aerator impeller - 76588A/43
27.10.77 BEHRINGWERKE AG B04 D16 =SF 7803-250
abilising meningococcal polysaccharide for use in vaccine - 33342B/18
00.00.77 BENCKISER J A GMBH D25 =FR 2406-422
sh washer operation accelerating soln. of cleaning agents - 51004B/28
- 06.04.77 BEST & DONOVAN D12 *US 4160-320
and held band saw - 56113B/30
- 22.09.78 GES BIOTECH FORSCHU D16 *DS 2841-414
lkali-stable macromolecule-bound adenine coenzymes - 54647B/30
/ 18.01.78 BISA K D15 H03 *DT 2802-012
ollution control with degradable foam - 54788B/30
22.12.77 BLENDAX WERKE SCHNEIDER D21 =EP ---3-023
ooth paste compsns. contg. zeolite - 50980B/28
K/ 09.05.74 BOCK W D13 (D16) *DL -135-322
y potato prod. mfr. without preliminary peeling - 54558B/30
24.10.77 BOLIDEN AB D15 =SF 7803-225
urificn. of water with magnetic sepn. of pptd. sludge - 31595B/17

BONG- 19.10.77 BONGRAIN GROUPE D13 =FR 2406-394
Hydrolysed conc. lactoserum for human nutrition - 33645B/18
*BORK/ 03.03.78 BORKMANN K D16 *DL -135-357
Sediment clearance device for vats - 54571B/30
BRBL 22.10.77 BRAUNSCHWEIG MASCH C04 D15 H09 =FR 2406-789
Drying aq. sludge to mfr. fertiliser, solid fuel, pigments, etc. - 16030B/09
BRUU/ 06.12.77 BRUUN B A Z C03 D13 =DK 7705-419
Plant fodder treatment process - 46178A/26
BUCL 25.10.77 BUCKMAN LABS INC A97 D15 E11 M14 =BR 7806-956
Compsn. used to prevent corrosion and incrustation in aq. systems
44129A/25
BUCM 06.12.73 BUCHERGUYER MASCH D15 =DS 2455-387
Effluent aerator-circulator - 41268W/25
*BUHL 16.01.78 BUHLER-MIAG GMBH D16 *DT 2801-715
Malting kiln barley distribution system - 54755B/30
*BUIL= 24.05.76 BUILD SANITARY EQUI D15 J01 *SU -627-088
Gravitational aq. sludge thickener - 55860B/30
*BULT/ 13.04.78 BULTHEEL J M D11 *BE -875-019
Preparing layered paste for french pastry etc. - 54544B/30

*CADB 05.01.78 CADBURY SCHWEPPES LTD D22 E17 *GB 2012-263
Solid adduct of glutaraldehyde or oxy-di:acetaldehyde - 55005B/30
*CADB- 25.01.78 CADBURY INDIA LTD D13 *US 4160-774
De-gumming sal seed fat glyceride(s) - 56218B/30
CALG 12.12.77 CALGON CORP D15 E16 M14 (E36) =DK 7805-563
Steam condensate corrosion inhibiting system - 47540B/26
*CALG 15.06.78 CALGON CORP A97 D15 H05 J01 (A14) *US 4160-742
Resolving oil-in-water emulsions - 56204B/30
*CALI 23.09.74 CHEVRON RESEARCH CO D15 H08 J01 *US 4160-729
Sepg. oily contaminants from water - 56193B/30
CARG- 22.10.77 CARGO FLEET CHEM CO D25 E19 F06 =FR 2406-690
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
CARG- 22.10.77 CARGO FLEET CHEM CO D25 E19 F06 =SF 7803-185
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
CARL- 08.04.77 CARLE & MONTANARI D14 =DL -135-349
Chocolate casting plate scraping system - 74674A/42
CELL- 05.12.77 CELLCOR CORP OF CAN D17 (D13) #SW 7713-756
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16
CELL- 06.12.77 CELLCOR CORP CANADA D17 (D13) #NO 7704-159
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16
*CERE- 24.10.77 CEREX C03 D13 *FR 2406-395
Foodstuff additive for horses - 54952B/30
CHAL 12.12.77 MACH CHAMBON SA D17 =DT 2852-815
Drying tunnel esp. for moulded moist sugar lumps - 24008B/13
CHAL 12.12.77 CHAMBON LTD D17 =GB 2012-402
Drying tunnel esp. for moulded moist sugar lumps - 24008B/13
CHFS 23.05.75 CHEM FAB STOCKHAU A97 D18 =GB 1549-028
Simultaneous soaking, cleaning and degreasing of hides - 90859X/49
CHIN 02.05.74 CHINOIN GYOGYSZER B02 C02 D22 (D21) =SU -626-694
2-(5-Nitro-2-furoyl-amino)-1-carbamoyl-benzimidazoles - 67346W/41
*CHWO= 21.03.77 CHEMICAL WORKS D15 *SU -627-087
Industrial recirculating water treatment - 55859B/30
*CIML- 30.01.78 CIM-LAMDS INT SARL D14 *FR 2406-396
Sterilisation of soft drinks - 54953B/30
CNRM 25.03.77 CENT NAT RECH METALLURGI D15 =US 4160-725
Purification of effluent waters contg. ammonium and phenolic cpds. - 55122A/31
*COFE= 18.02.77 CONFECTIONERY IND D13 *SU -627-807
Sugar-based sweets prodn. - 56024B/30
COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =BR 7807-011
Deodorant stick based on alkali metal bi:carbonate - 18051B/10
CONC 21.04.75 CONTINENTAL GROUP D22 =GB 1549-023
Supporting open mouthed pouches during autoclave sterilisation - 90245X/48
COOP- 18.01.78 COOP PHARM FRANCAIS D13 =DT 2901-672
ingestible compsn. contg. vegetable fibre and metallic proteinate - 52560B/29
CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =SF 7801-113
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19
CORP 12.01.78 CPC INTERNATIONAL INC D17 E13 (D16) =DT 2855-392
Preparing high purity maltose crystals from starch hydrolysate - 52537B/29
*CRES- 10.05.74 CRESTON VALLEY FOOD A92 D13 *GB 1549-156
Treating raw potatoes after cold storage - 54978B/30

DAID 27.09.74 DAIDO KOGYO KK D15 E19 J08 (E36) =J7 9017-584
Rapid complete removal of scale and slime from water systems - 36746X/20
*DAID- 24.11.77 DAIDO KAGAKU SOCHI D15 E36 *J5 4074-295
Recovering nitric and hydrofluoric acids from metal-contg. solns. - 55260B/30

*DAIR= 10.12.76 DAIRY IND RES INST D13 (D16) *SU -626-750
Low-fat soured milk drink prepn - 55716B/30

*DAIR= 08.04.77 DAIRY IND RES INST D13 *SU -626-751
Coagulant from whey for cottage cheese prodn. - 55717B/30

*DANE- 07.12.77 DANEPAK LTD D12 *DK 7705-432
Bacon cutting system - B/30

DANJ/ 00.00.73 DANJES M D15 =DS 2733-139
Biological sewage treatment - 08272B/05

DATA 06.10.75 DATA PACKAGING CORP D16 =GB 1549-325
Tissue culture cluster dish - 21654Y/12

*DCOS/ 15.12.77 DA COSTA O P D11 *BR 7708-389
Mixer for e.g.dough - B/30

*DEAK 23.06.76 AKAD WISSENSCHAFT DDR A97 D13 *DL -135-321
Protein reaction prod. with poly:carbonyl cpd. - 54557B/30

DEGS 11.11.76 DEUTSCHE GOLD & SILBER D25 E34 =DS 2712-139
Sodium percarbonate particles coated with dehydrated sodium perborate - 34984A/20

DEGS 26.05.77 DEUTSCHE GOLD & SILBER D22 E16 (E12 E37) =US 4160-656
Deodorising liquid manure esp. of pigs and poultry - 86111A/48

DIAS 11.11.76 DIAMOND SHAMROCK CORP D15 E36 J03 =DS 2749-969
Electrolytic cell for halogen generation in circulating liquor - 36903A/21

*DIBO/ 05.05.78 DIBONA A D12 *US 4160-604
Rapid salad mixer and dicer - 56146B/30

*DOKA- 25.11.77 DOKAI KAGAKU KOGYO D15 *J5 4075-157
Purifying water, esp. from suspended solids - 55370B/30

*DOMT 22.08.77 DOMTAR LTD D15 J03 M25 *US 4160-730
Mercury removal from aq. media - 56194B/30

*DORF/ 06.03.78 DORFEL K A25 B07 D21 E17 (A96 B04 B05) *DL -135-381
Prodn. of oil-soluble surfactant - 54583B/30

DRAY- 12.05.72 DRAYTON CASTLE LTD D22 =DS 2322-698
Sterilization of closed objects - 76102U/50

*DRED 20.12.77 VEB ARZNEIMITTEL DRESDEN B02 D16 *DT 2840-670
Recovering ergot alkaloid(s) from culture suspension - 54811B/30

DREW 17.01.78 DREW CHEMICAL CORP A35 D15 G02 (A82) #DT 2801-842
Recovery of reusable latex paint solids - 60342A/33

DUYV- 17.05.77 MACH FAB DUYVIS BV D13 =DL -135-441
Cocoa press paste charging - 88092A/49

DYNL 24.03.75 DYNAPOL B05 D13 E12 =GB 1549-232
Water-soluble dihydrochalcone sweetening agents - 61655X/33

DYNL 24.03.75 DYNAPOL B05 D13 E12 =GB 1549-233
Water-soluble dihydrochalcone sweetening agents - 61655X/33

EAST 23.08.76 EASTMAN KODAK CO B04 D16 J04 =US 4160-696
Ascorbic acid determn. e.g. in body fluids - 18065A/10

*EBAI 30.11.77 EBARA INFILCO KK A97 D15 *J5 4076-482
Dehydration of organic waste sludge - 55549B/30

*ECKA- 25.11.77 EC KAGAKU KOGYO KK A88 D15 E19 J01 (A11) *J5 4074-284
Reverse osmosis membrane with improved strength and water permeability - 55254B/30

ELEX 17.10.77 ELECTROLUX AB D22 =SF 7803-129
Autoclave sterilisation by evaporating formalin - 31887B/17

ELIL 20.10.77 ELI LILLY & CO B03 C02 D13 E13 =FR 2406-639
Antibiotics 20-deoxy-narasin and 20-deoxy-epi-17 narasin - 19939B/10

ELIL 20.10.77 ELI LILLY & CO B03 C02 D13 E13 =SF 7803-174
Antibiotics 20-deoxy-narasin and 20-deoxy-epi-17 narasin - 19939B/10

ERBA 10.12.76 ERBA C SPA B04 D16 J04 =GB 1549-069
Immunological determn. of antigens and hapten(s) - 28849A/16

ETHI 05.12.77 ETHICON INC A96 D22 =BR 7804-576
Surgical suture needle with thread detachable by pulling - 87831A/49

EVRA/ 23.12.77 EVRARD J E M D13 =GB 2012-233
Pasty food packaging machine e.g. for soft cheese - 51111B/28

FARB 20.09.75 BAYER AG A97 C03 D25 F06 (A26) =GB 1549-225
Dispersants with pale colour and low salt content - 23746Y/14

FARB 25.03.77 BAYER AG A94 C04 D21 (A21 D16) =US 4160-754
Storage stable polymer gels based on aminoplast resins - 70776A/40

FARB 03.09.77 BAYER AG D18 =BR 7805-719
Chrome tanning of hides and pelts - 20218B/11

FARB 26.10.77 BAYER AG B05 C03 D22 E14 =BR 7806-986
Aryl-thiocarboxylic acid thiocyano-methyl ester derivs. - 33714B/18

FARB 17.01.78 BAYER AG A82 D18 E37 F08 =BE -873-529
Pigment preparations for (imitation) leather dressings - 54767B/30

*FARB 17.01.78 BAYER AG A82 D18 E37 F08 *DT 2801-817
Pigment preparations for (imitation) leather dressings - 54767B/30

*FARE= 21.07.76 FAR EAST POLY D12 *SU -627-312
Fish catch continuous sorter - 55996B/30

*FARF 02.03.78 VEB CHEMIEKOMB BITT A91 D15 J01 (A13) *DL -135-391
Prepn. of bipolar ion exchange resins - 54586B/30

FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =BR 7807-167
Preparing vinyl ester-crotonic acid copolymer - 37255B/20

FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =SF 7803-312
Preparing vinyl ester-crotonic acid copolymer - 37255B/20

FARH 04.11.77 HOECHST AG A60 D23 E16 K01 (A14) =J5 4075
Surfactant mixt. of per:fluoroalkyl quat. ammonium alkyl su
35259B/19

FARH 11.01.78 HOECHST AG D15 =EP ---3-119
Flocculating agent for water treatment - 52792B/29

*FAZE- 16.01.78 FAZER AB D13 *DT 2901-093
Continuous deodorisation of cocoa butter - 54855B/30

*FERM= 29.04.77 FERMENT PROD RES D16 *SU -627-161
Alcohol prodn. from starch bearing stock - 55929B/30

FIRM 07.05.69 FIRMENICH SA B05 C03 D23 E15 (D13) =DS 2065
Unsaturated cycloaliphatic ketones - 82738R/44

*FIRM 13.01.78 FIRMENICH SA B05 D23 E15 *DT 2901-119
Cis-10,10-di:methyl-tri:cyclo-(7.1.1.0)-undec-2 en-4-one - 5485

FIRM 13.01.78 FIRMENICH SA B05 D23 E15 =GB 2012-264
Cis-10,10-di:methyl-tri:cyclo-(7.1.1.0)-undec-2 en-4-one - 5485

FISO 31.10.77 FISONS CORP D22 =SF 7803-288
Sterilising soln. contg. physiologically acceptable salt and
37529B/20

FMCC 22.02.71 FMC CORP D15 E36 =DS 2207-920
Waste water treatment - 58276T/37

FMCC 09.01.78 FMC CORP D15 #NL 7800-246
Eliminating cyanurate cpds. from waste water - 56782A/32

*FODA 21.02.75 FOREMOST MCKESSON D15 *US 4160-727
Staged reverse osmosis units for purifying and dispensing
56192B/30

*FUJI 24.11.77 FUJISAWA PHARM IND KK D25 E34 *J5 4073-806
Cleaning compsn. for drain-pipe, lavatory etc. - 55112B/30

FUKO 11.03.74 FUJI OIL KK D23 =J5 0121-462
Hard butter prodn. from palm oil - 55624B/30

FUKO 11.03.74 FUJI OIL KK D23 =J5 0121-463
Hard butter mfr. from palm oil - 55625B/30

*FUKO 11.03.74 FUJI OIL KK D23 *J7 9017-331
Hard butter prodn. from palm oil - 55624B/30

*FUKO 11.03.74 FUJI OIL KK D23 *J7 9017-332
Hard butter mfr. from palm oil - 55625B/30

*FURA= 04.05.77 FUR ANIMALS HUSBAND C03 D13 *SU -627-80
Feed for young sables in fur farms - 56025B/30

*GALL- 20.01.78 GALLAHER LTD D18 E36 H06 *BE -873-598
Catalyst for oxidn. of carbon mon:oxide to di:oxide - 54504B/30

*GALL- 20.01.78 GALLAHER LTD D18 E36 H06 *BE -873-599
Catalyst for oxidn. of carbon mon:oxide to di:oxide - 54505B/30

*GALL- 20.01.78 GALLAHER LTD D18 E36 H06 *BE -873-600
Smoking product contg. catalyst for oxidn. of carbon mo
54506B/30

GAST/ 08.09.76 GASTROCK E A C03 D13 =GB 1549-088
Cotton seed treatment - 34443A/19

GAUS- 21.10.77 GAUSEWITZ CARR ROTH D15 =FR 2406-609
Water purification plant - 33615B/18

*GELM- 14.02.77 GELMAN INSTRUMENT D16 J04 *US 4160-700
Moulded plastics petri dish - 56179B/30

GENE 31.01.68 GENERAL ELECTRIC CO C03 D13 =DS 1904-239
Treatment of organic waste with thermophilic - 07006H/00

GENE 14.04.75 GENERAL ELECTRIC CO A26 D22 G02 (A83 A
A96) =GB 1549-242
Organo-siloxane gels from siloxane copolymer and liq. s
83517X/45

GENE- 08.11.77 GENENTECH INC B04 D16 =SF 7803-365
Recombining plasmid for transformation of bacteria - 35257B/1

GENE- 08.11.77 GENENTECH INC B04 D16 =SF 7803-366
Recombining plasmid for transformation of bacteria - 35257B/1

GENE- 08.11.77 GENENTECH INC B04 D16 =SF 7803-367
Recombining plasmid for transformation of bacteria - 35257B/1

*GENM 25.08.75 GENERAL MILLS INC D13 *US 4160-850
Shelf stable mix for butter substitute - 56261B/30

*GENM 28.11.77 GENERAL MILLS INC B06 D21 E14 (D13 E32) *U
820
Chewing gum compsn. - 56249B/30

GENO 06.04.76 GENERAL FOODS LTD D13 #GB 1549-056
Dry mix for preparing yoghurt-like dessert - 38031X/20

GENO 01.11.77 GENERAL FOODS CORP D13 =SF 7803-197
Free-flowing coffee agglomerate leaving no sediment - 35665B

GEVA 07.12.73 AGFA-GEVAERT AG D15 G06 =US 4160-594
Photographic processing liquid wastes treatment - 41207W/25

*GIPR= 29.03.77 GIPROMASHUGLEOBOGAS D15 J01 *SU -627-
Horizontal centrifugal precipitation separator - 56052B/30

*GISB/ 28.10.77 GISBIER D C04 D13 E36 *DL -135-476
Arsenic removal from phosphoric acid - 54614B/30

GLAX 25.08.70 GLAXO LTD B02 D16 =J7 9017-831
Cephalosporin - 16134T/10

GOGL/ 04.12.72 GOGLIO L A88 D13 =DS 2360-126
Sealed plastics food packaging provided with degassing
26770V/14

GOLD 29.03.75 GOLDSCHMIDT TH AG C01 D22 E11 M14 (D15)
1549-053
Metallic phosphite monoesters - 59688X/32

GOSE- 22.05.75 GOSEI KAGAKU KENYU D15 J01 =J7 9017-593

11.01.78 GRACE W R CO D17 =GB 2012-177
y drying solns. contg. mixture of sugars - 37194B/20
11.01.78 GRACE W R CO D17 =NL 7808-647
y drying solns. contg. mixture of sugars - 37194B/20
09.12.77 GRAIN PROCESSING CORP D16 =DK 7805-523
on. of roasted non-malted barley - 27923B/15
09.12.77 GRAIN PROCESSING CORP D16 =SW 7812-681
on. of roasted non-malted barley - 27923B/15
/ 22.10.77 CAMPAS GRANJA M E B02 D13 E13 =FR 2406-633
er-soluble calcium saccharin salt - 33600B/18
16.05.77 GUTER G A D15 *US 4160-738
nestic high pressure water purifier - 56201B/30

16.06.77 HAG AG D13 =DL -135-491
affeinating vegetable materials esp. coffee - 76360A/43
18.01.78 HANSAW LURMAN SCHUT CO D22 *DT 2801-968
terial growth restricting vessel - 54781B/30
/ 28.11.77 HAYASHI K C04 D15 *J5 4075-160
ating organic material-contg., bad odour waste water - 55372B/30
18.12.72 HAYASHIBARA BIOCHEM A96 B04 D13 F01 (B07) =SU -
59
lalan esters mixed with amylase and gelatin - 32694V/26
02.10.71 HENKEL KG AUF AKTIEN A97 D25 E34 =DS 2149-251
shing up compsns - 21418U/16
14.06.75 HENKEL KG AUF AKTIEN D21 E13 =GB 1549-213
clic acetal or ketal cpds. as anti inflammation agents - 01382Y/01
10.12.77 HENKEL KG AUF AKTIEN C03 D13 =DK 7805-475
imal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
25.04.77 HETEROORG CPDS AS USSR D23 E15 *SU -627-118
Methyl cyclo-tetra:decanone prepn. - 55888B/30
02.03.78 HIEKE W D16 H04 L03 (D13) *DL -135-396
crobiological fermentation of petroleum fractions contg. paraffin(s) -
590B/30
02.03.78 HIEKE W D16 H04 (D13 H07) *DL -135-397
odn. of lubricating oils and protein from paraffinic oils - 54591B/30
09.04.71 HIKETSU CARBON IND A91 D15 E31 J01 (A26 E32) =J4
971
rification of industrial effluents - 00451T/01
31.01.77 HITACHI KK D15 J03 =US 4160-713
ectrodialysis method to concentrate or desalt an electrolyte - 67872A/38
30.11.77 HITACHI SHIPBLD ENGG KK D15 *J5 4076-483
udge treatment system - 55550B/30
J/ 09.01.78 HOA J H B D21 #NL 7800-240
cial beauty treatment with clay mask over cleansing compsn. -
302Y/50
13.01.78 HOFFMANN-LA ROCHE AG D13 E24 =DT 2901-071
olouring agent, esp. for drinks, based on natural colourant - 52539B/29
J 09.04.71 HOKUETSU CARBON IND A91 D15 E31 J01 (A26 E32) =J7
-714
rification of industrial effluents - 00451T/01
S= 01.04.76 HOUSING CONS INDUSTRIALI C03 D22 F09 *SU -627-
ood protection by autoclaving with hydrophobic liquid - 56104B/30
N/ 19.08.77 HUANG T H D11 *US 4160-634
rtable, low power, automatic dumpling-making machine - 56151B/30
E 20.12.77 HUBER J M CORP D21 E33 =BR 7801-523
brasive silica compsn. for dentifrice paste - 67037A/38
K- 14.01.78 HUCKFELDT & THORLIC D12 *DT 2801-545
usage sheath of rustic appearance mfr. - 54732B/30
K/ 21.10.77 HURKMANS A D11 =FR 2406-814
olumetric depositor for paste esp. edible paste - 31576B/17

22.12.77 IMPERIAL CHEM INDS LTD C02 D13 =GB 2012-167
eatment of ruminants with aplasmomycin or related cpds. - 52996B/29
19.08.77 IDEMITSU INDUSTRIES KK D13 *J5 4032-640
epn. of shumai chinese food - 55032B/30
15.11.77 INT FLAVORS & FRAGR INC B07 D23 E15 (B05 D13 D18 D25)
4076-551
ans, trans-delta-damascone - 39304B/21
05.12.77 ITT INDUSTRIES INC D12 =SW 7812-516
ptimising value of meat cuts produced from animal carcass - 44536B/24

A 20.10.77 JGC CORP D15 E36 J04 =FR 2406-607
egenerator for wet spent active carbon - 33878B/18
R 29.11.77 JAPAN ORGANO KK D15 J01 *J5 4075-477
ure water prodn. using weakly acidic cationic exchange resin -
5427B/30
R 29.11.77 JAPAN ORGANO KK D15 J01 *J5 4075-478
on exchange treatment - 55428B/30
V/ 14.10.77 JARVENKYLA J D11 *SF 7703-053
ppts. for turning edge of sheet of dough - B/30
E- 21.03.78 JEYES GROUP LTD A97 D25 *BE -874-982
reparing tablets for cleaning lavatories - 54534B/30
J 27.10.77 JOHNSON & JOHNSON A96 D22 (A26) =BR 7807-075
Orthopaedic hardenable bandage of improved water resistance -
1668B/06

JOHJ 27.10.77 JOHNSON & JOHNSON A96 D22 (A26) =J5 4075-190
Orthopaedic hardenable bandage of improved water resistance
11668B/06
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =SF 7803-147
Low temp. maturing dental glaze - 78140A/43
* JOHJ 27.02.78 JOHNSON & JOHNSON B05 D21 (B06) *US 4160-821
Topical compsn. comprising glycerine soln. of zinc chloride - 56250B/30
JOHS 16.01.78 JOHNSON S C & SONS INC D25 E12 (E16) =DT 2901-663
Non-scratching liquid scouring compsn. - 50731B/27
JOHS 16.01.78 JOHNSON S C & SONS INC D25 E12 (E16) =GB 2012-301
Non-scratching liquid scouring compsn. - 50731B/27
JOUL/ 21.10.77 JOULIN G D11 =FR 2406-391
Bran bread prepn. - 33679B/18
JOUL/ 21.10.77 JOULIN G D11 =FR 2406-392
Mfr. of loaves of bread, esp. French sticks - 14242B/08

KALI 10.06.77 KALI-CHEMIE AG B04 D16 =DL -135-495
Water-insoluble immobilised enzyme prod. prepn. - 63596A/36
KANE 04.03.74 KANEBO KK D13 (D16) =J5 0117-965
Fermented milk prodn. - 55657B/30
KANE 04.03.74 KANEBO KK D13 (D16) =J5 0117-966
Prepn. of fermented milk contg. carbon di:oxide - 55658B/30
* KANE 04.03.74 KANEBO KK D13 (D16) *J7 9017-811
Fermented milk prodn. - 55657B/30
* KANE 04.03.74 KANEBO KK D13 (D16) *J7 9017-812
Prepn. of fermented milk contg. carbon di:oxide - 55658B/30
KAOS 14.09.73 KAO SOAP KK D21 E16 (E37) =DS 2443-646
Tooth-cleaning compsn. preventing formation of dextran in mouth -
22819W/14
KAOS 29.03.76 KAO SOAP KK A96 D21 E19 (A25) =US 4160-823
Transparent aq. hair rinsing compsn. - 74356Y/42
KAOS 28.11.77 KAO SOAP KK A97 D25 E17 (A14 A25 E14) =J5 4074-810
Low viscosity aq. stable liq. cleansing compsn. - 42661B/23
KARI- 21.10.77 KARISA SPA A88 D11 =FR 2406-390
Biscuit shaping cutter - 33650B/18
* KASH- 24.11.77 KASHIWA KAGAKU KOGY D21 *J5 4074-156
Preventing staining of curling iron etc. with permanent wave lotion -
55213B/30
* KAWA/ 28.11.77 KAWASHIMA Z C03 D13 (D22) *J5 4075-376
Preventing malodour in rearing of poultry or livestock - 55388B/30
KELL/ 03.11.77 KELLERSCH J D21 =DS 2759-504
Hair lotion and restorer - 33440B/18
KEMI- 09.01.78 KEMIN INDS INC C03 D13 =GB 2012-157
Stable emulsified liquid starch prod. - 52805B/29
KEMI- 09.01.78 KEMIN IND INC C03 D13 =NL 7805-306
Stable emulsified liquid starch prod. - 52805B/29
* KERN- 16.01.78 GES KERNEN SCHIFFBA D15 E36 *DT 2801-724
Removing fluoride from water - 54756B/30
* KERN- 23.01.78 GES KERNEN SCHIFFBA D15 *DS 2802-780
Water desalination and purification - 54635B/30
* KHGE= 13.12.76 KHARK GENE SUPPLY D12 *SU -627-809
Fried food e.g. meat or fish prodn. - 56026B/30
* KHPO 10.10.75 KHARK POLY C04 D13 (C03) *SU -627-111
Conversion of bird droppings to fertiliser or fodder - 55881B/30
* KHPO 21.03.77 KHARKOV POLY D15 *SU -627-087
Industrial recirculating water treatment - 55859B/30
* KIBU- 21.07.75 KIBUN CO LTD D13 *GB 1549-206
Soybean milk prodn. without beany flavour or bitterness - 54986B/30
KIKK 07.05.74 KIKKOMAN SHOYU KK D13 (D16) =J5 0142-762
Powdered seasoning compsn. prepn. - 55659B/30
* KIKK 07.05.74 KIKKOMAN SHOYU KK D13 (D16) *J7 9017-813
Powdered seasoning compsn. prepn. - 55659B/30
* KIKK 29.11.77 KIKKOMAN SHOYU KK C04 D16 *J5 4075-364
Compost prepn. from woody material - 55387B/30
KIKU/ 04.11.75 KIKUHARA I D11 =GB 1549-252
Bread mfr. without antimould agent esp. sodium or calcium propionate -
18220Y/11
KIMB 04.11.77 KIMBERLY CLARK CORP D18 =BR 7806-998
Reconstituted tobacco mfr. from whole plants - 37435B/20
* KITT/ 10.03.75 KITTEL H O D13 *DL -135-320
Food contg. protein hydrolysates with improved flavour - 54556B/30
* KOBM 28.11.77 KOBE STEEL KK D15 J01 M14 *J5 4075-444
Preventing corrosion of sea water desalination devices - 55413B/30
KOBM 28.11.77 KOBE STEEL KK D15 M14 (M26 M27) =J5 4075-445
Reactive anode preventing corrosion of copper alloys - 42638B/23
KONN 22.12.72 GIST-BROCADES NV B03 C02 D13 E13 (B02 D22) =US 4160-829
Oxadiazolyacetic acid antibiotics - 51365V/28
* KOVA/ 10.05.76 KOVACS A J A88 D15 *US 4160-723
Activated sludge system for domestic and small scale commercial use -
56190B/30
KUKI- 00.00.73 KUKIDENT KRISP K KG A97 D21 (A25) =DS 2741-072
Tablet-form cleaning agent for dental braces etc. - 22259B/12
KUKU/ 20.05.76 KIKUHARA J D16 (D13) =J7 9017-838
Highly nutritive fermented vinegar prepn. from fruits - 05163A/03

KUNZ/ 15.04.75 KUNZ P D14 =SU -627-734.
Machine for steam peeling - 63497X/34

KURK 25.11.77 KURITA WATER IND KK D15 M11 *J5 4075-159
Treating plating waste water contg. heavy metal, cyanide etc. - 55371B/30

KURK 29.11.77 KURITA WATER IND KK D15 *J5 4075-860
Purifying waste water contg. metal ions and organics - 55460B/30

*KURS 15.11.77 KURARAY KK B05 C03 D13 E19 (D21 D23) *J5 4073-726
Gamma, delta-unsatd. terpenoid ester used in cosmetics, and perfumes - 55073B/30

KURT/ 25.10.67 KURTZ L D A23 D22 F01 #DS 1660-442
Fabrication of pliable polyester threads - 13392R/09

KUST 05.01.78 KUSTERS E D15 F07 J01 =NL 7900-064
Self-cleaning liq. filter system - 53126B/29

*KUZM/ 18.04.77 KUZMIN YU M D15 J01 *SU -626-791
Water and effluent liquids filter - 55736B/30

KYOW 15.03.74 KYOWA HAKKO KOGYO B03 D16 =J7 9017-830
Triazole riboside prodn. - 76389Y/43

LABO 21.06.77 LABOFINA SA D23 J04 =DS 2824-125
Prodn. of partially sulphided nickel catalyst - 74309A/41

LEGE/ 10.01.78 LEGEIN K L C04 D22 =DT 2900-641
Formaldehyde treatment of liq. manure - 35007A/20

LEGE/ 10.01.78 LEGEIN K L C04 D22 =NL 7900-069
Formaldehyde treatment of liq. manure - 35007A/20

*LEME= 08.04.77 LENGD MEAT IND PROD D12 *SU -626-747
Meat cutter with disc knives - 55713B/30

*LERE= 25.04.77 LENGD REFRIG IND D12 *SU -626-746
Sausage meat extruder for filling skins - 55712B/30

LESP/ 12.02.76 LESPEAU B A D11 =GB 1549-145
Continuous mfr. and packing of rusks - 41767Y/24

LIFE- 12.12.77 LIFE SAVERS INC D13 =DK 7805-559
Sugarless candy with improved flavour and sweetness - 42347B/22

LIOC 22.03.74 LION DENTIFRICE KK D13 =J5 0125-050
Stable, oily emulsion foodstuff prepn. - 55656B/30

*LIOC 22.03.74 LION DENTIFRICE KK D13 *J7 9017-807
Stable, oily emulsion foodstuff prepn. - 55656B/30

LIOC 20.10.77 LION DENTIFRICE KK B06 D21 E32 =FR 2406-437
Caries-preventing dental treatment compsn. - 35643B/19

LLAB 11.03.76 LAB LABAZ B03 D16 =GB 1549-320
Neomycin and paramomycin analogues - 64939Y/37

*LRSR- 26.07.76 LRS RESEARCH LTD D15 *US 4160-734
Mobile system for cleaning and processing catch basin waste - 56198B/30

LYCK 18.10.77 LYCKEBY STARKEISEFORADIN D13 =FR 2406-665
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09

LYCK 18.10.77 LYCKEBY STARKEISEFORADIN D13 =SF 7803-153
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09

MAAP 19.12.72 VEB MASCH & APP GRIMMA D16 =SU -627-160
Straining vat bottom - 13537V/08

*MANT/ 17.10.77 MANTYKOSKI M D14 *SF 7703-067
Deep-freezing and washing system for berries - B/30

*MATS/ 15.11.77 MATSUEDA K B05 D16 *J5 4073-746
Neosporin antibiotics - 55083B/30

*MATU 29.11.77 MATSUSHITA ELEC IND KK D22 J01 *J5 4075-473
Air purifier for removing oil and smoke - 55424B/30

*MEAT= 14.03.77 MEAT IND RES INST D12 *SU -627-804
Quality sausage meat prodn. - 56021B/30

MERE 22.10.70 MERCK PATENT GMBH D21 E14 (D22) =J7 9017-806
Uv absorbents for cosmetics - 27138T/17

*MERI 03.10.77 MERCK & CO INC B02 C02 D16 *US 4160-861
Sepn. of antibiotic C-076 components - 56264B/30

*MERI 25.01.78 MERCK & CO INC B04 C03 D16 *BE -873-653
Cultivating cells or virus using Koch Static Mixing System - 54513B/30

*MESS/ 19.10.77 MESSAC L E A96 D21 *FR 2406-438
Slimming gel or lotion for application with elastic bandages - 54954B/30

MICH/ 24.10.77 MICHAELS E B D22 E16 #FR 2406-439
Antimicrobial compsn. contg. acyl-betaine and amine oxide - 19587A/10

*MICK/ 04.03.77 MICKLICH W D18 *DL -135-334
Removing hair or bristles from hides and skins in leather mfr. - 54567B/30

MICR- 10.12.75 MICROLIFE TECHNICS D16 (D12) =DS 2659-896
Micrococcus sp NRRL-B-8048 bacterial concentrate - 23563Y/13

*MICR= 29.04.77 MICROBIOL EPIDEM D16 *SU -627-163
Glucoamylase producing microbial mutant strain selection - 55931B/30

*MIKA 28.11.77 MIKASA KAGAKU KOGYO KK C02 D13 *J5 4075-377
Accelerating growth of silkworm and increasing wt. of cocoon - 55389B/30

*MILE 27.03.78 MILES LABORATORIES INC A91 D16 (A26) *BE -875-032
Preparing aggregate of bacterial cells esp. streptomyces olivaceus - 54547B/30

MILE- 09.01.78 MILERB AG D13 =NL 7900-054
Preserving herbs to avoid loss of volatiles - 35303B/19

*MIRA- 18.12.74 MIRAJ INTR COSMETIC D21 *RU --65-014
Mouth-wash compsn. - ' B/30

MITB 26.04.77 MITSUI SHIPBUILDING ENGG D15 =J7 9017-585
Sepg. waste water from liq. of lower specific gravity - 00807B/0

*MITO 29.11.77 MITSUBISHI HEAVY IND KK D15 E36 J01 *J5 4075
Biological treatment of waste water contg. dithionic acid - 55463

*MITP 21.11.77 MITSUBISHI PETROCH KK D17 *J5 4073-709
Butane-diol prodn. from 1,3-butadiene - 55060B/30

*MITQ 29.11.77 MITSUBISHI ELECTRIC CORP D15 *J5 4075-858
Treating sewage sludge, night soil etc. - 55459B/30

*MITS- 30.11.77 MITSUBISHI JUSHI EN D15 *J5 4075-862
Treating night soil with photosynthetic bacteria - 55462B/30

MITU 22.10.77 MITSUBISHI CHEM IND KK B04 D16 J04 =FR 240
Fluid glucose content measurement - 33664B/18

MOBA- 09.12.77 MOBA HOLDING BARNEV D12 =DK 7805-299
Device for hanging a fowl by the knee joint - 48334B/26

MOBA- 09.12.77 MOBA HOLDING BARNEV D12 =DK 7805-300
Device for enclosing and modelling a fowl - 48335B/26

MOBA- 09.12.77 MOBA HOLDING BARNEV D12 =DK 7805-301
Device for modelling or packaging objects partic. fowls - 48336B

MOBA- 09.12.77 MOBA HOLDING BARNEV D12 =DK 7805-302
Device for holding and treating e.g. fowl - 48337B/26

*MOFA= 25.07.77 MOSC FATS COMBINE D13 *SU -626-755
Storage stable mayonnaise prodn. - 55721B/30

*MOFA= 25.07.77 MOSC BR FATS RES D13 *SU -626-755
Storage stable mayonnaise prodn. - 55721B/30

*MOFO= 01.04.76 MOSC FOREST ENG INS C03 D22 F09 *SU -627-
Wood protection by autoclaving with hydrophobic liquid - 56104

*MOGI= 09.03.77 MOGILEV TECHN INST D13 *SU -627-806
Milk sterilising appts. - 56023B/30

*MOMD 29.03.77 MOSCOW MEAT DAIRY INST D12 *SU -626-745
Tubular bone cutting equipment - 55711B/30

*MOMD 11.04.77 MOSCOW MEAT DAIRY INST D12 *SU -627-811
Prodn. of shaped cooked meat prods. - 56028B/30

*MOMD 13.04.77 MOSCOW MEAT DAIRY INST D12 *SU -626-748
Meat mincer for sausage meat prodn. - 55714B/30

*MOMD 21.04.77 MOSCOW MEAT DAIRY INST D12 (D13) *SU -62
Prodn. of tinned food, e.g. minced meat - 55720B/30

*MOMO= 02.07.73 MOSC MOSVODOKANALNI D15 *SU -627-32
Automatic dispensing of reagent for purifying drinking water or 55998B/30

*MONG/ 23.03.77 MONGAIT L I D15 J01 (D22) *SU -626-792
Drum vacuum filter for effluents treatment - 55737B/30

MOOC 08.12.77 MO OCH DOMSJO AB D22 =NO 7804-117
Dressing for high fluid secretion wounds - 47480B/26

MOOC 08.12.77 MO OCH DOMSJO AB D22 =SW 7713-918
Dressing for high fluid secretion wounds - 47480B/26

*MORA- 25.10.74 INTR MORARIT PANIFI D13 *RU --66-785
Dietetic foodstuff - B/30

*MORI/ 25.11.77 MORIYAMA M D21 E19 (E34) *J5 4073-807
Shampoo compsn. giving good foam stability - 55113B/30

MRSC 17.06.75 MARS INC C03 D13 =GB 1549-196
Storing stable foodstuff contg. protein pieces - 00011Y/01

NASI/ 06.10.76 NASICA J R L A92 B07 D02 (A96) =US 4160-852
Thermoplastic laminated sheet for sterile packages esp. 10339A/06

NATT 19.11.73 NAT STARCH & CHEM CORP A96 D21 E13 =J7 333
Hair shampoo and conditioner - 36292W/22

*NCAU= 06.04.77 NORTH CAUCASUS BIOS D16 *SU -627-164
Microorganisms culture unit - 55932B/30

NEST 05.03.74 SOC PROD NESTLE SA D13 E16 (E14) =J7 9017-80
Treatment of foodstuff poor in lysine by addn. of L-lysine - 50941

NEST 12.01.78 NESTLE SA D13 =DT 2851-493
Decaffeinating aq. tea extract - 47165B/26

*NIDE 30.11.77 NIPPON ELECTRIC KK D15 J01 M25 *J5 4076-481
Removal of heavy metals from waste water - 55548B/30

NIKN 30.08.76 NIPPON KOKAN KK D15 E36 J03 =J7 9017-589
Electrodialyser for concn. and desalination of sea water - 31107A

*NIKS 06.03.70 NIPPON KASEI KK A91 D15 (A21) *J7 9017-799
Ion exchange resin for purificn. of tap water - 55655B/30

NIOF 27.11.76 NIPPON OILS & FATS KK D16 =J7 9017-837
Clarifying agent for wines - 52516A/29

*NISC 30.11.77 NISSAN CHEM IND KK D23 E17 *J5 4076-506
Geraniol trans isomer prepn. - 55561B/30

*NITE- 26.11.77 NIPPON TENNEN GAS K A97 C03 D22 E36 (A11 4074-885
Iodine chitosan addn. prod. - 55339B/30

*NITL 24.11.77 NITTO ELECTRIC IND KK A81 D22 G03 (A12 A13 4074-135
Sticking plaster for supporting parts of the body - 55212B/30

*NMHB 07.12.77 NORDISCH MASCH R BAADER D12 *NO 7704-1
Fish filleting machine - B/30

*NOVO 17.01.78 NOVO INDUSTRI D25 *DT 2901-339
Detergent compsn. contg. zeolite - 54864B/30

= 03.02.77 ODESS FOOD EQUIP D13 *SU -626-757
n ends severing machine - 55723B/30
= 14.04.77 ODESS FOOD EQUIP D14 *SU -626-756
uced power consumption electro-plasmolyser - 55722B/30
= 23.02.77 ODESS VENDING EQUIP D14 *SU -627-813
ro-plasmolyser for fruit juice extraction - 56030B/30
/ 29.11.77 OHNO T D25 G02 *J5 4074-808
used for cleaning motor cars and as detergent for glass - 55295B/30
9.06.78 OLIN CORP A26 D25 E11 (A25 A60 A97) *US 4160-776
oxy-bis (trialkoxysiloxy)-silane surfactant - 56220B/30
09.11.76 OLYMPUS OPTICAL KK D16 =US 4160-699
omatic incubator - 35273A/20
12.11.76 ONTARIO RES FOUND D15 #US 4160-724
effluent purification - 38768A/22
= 03.01.77 ORCHARD VINEYARD EQ D14 *SU -627-814
and vegetables size grader - 56031B/30
18.05.77 L'OREAL SA D21 E19 =BR 7803-102
:irritant eye make/up remover - 84085A/47
28.11.77 ORION KIKAI KOGYO D15 *J5 4075-162
atment of living waste water - 55374B/30
13.01.78 ORION RES INC A89 D15 J04 =DT 2820-709
ulating pH in a low ion concn. potentiometric measuring system - 92A/50
/ 10.03.77 ORTH G O D12 *US 4160-847
roving freeze-thaw stability of fish bait - 56259B/30

18.01.78 PASSAVANTW MICHELBACHER D15 *DT 2802-066
mical-mechanical water treatment process - 54792B/30
18.04.77 PENNWALT CORP A97 D11 E17 *US 4160-848
ditive for inhibiting staleness in baked goods - 56260B/30
6.01.71 PFIZER INC B02 D16 =J7 9017-832
halosporin c extraction - 62990T/40
04.05.78 PHILIPS GLOEILAMPEN NV B04 C03 D16 #DL -135-507
dn. of attenuated transmissible gastroenteritis virus - 76283A/43
10.01.78 PHILIP MORRIS INC A97 D18 E19 *NL 7900-160
acco contg. non-volatile polymer of isopropenyl ester - 55674B/30
11.01.78 PINTO L A C M R D17 #NL 7800-325
ntinuous decanting clarifier, esp. for sugar juice - 38563A/22
06.08.74 MAX PLANCK GES WISSENSCH B05 D13 E11 =US 4160-
thetic alkyl esters of phosphatidic acids - 14895X/09
= 05.07.74 POLYMER ADHESIVE RE D15 *SU -627-089
ganic material contg. effluent water purifier - 55861B/30
/ 01.03.78 PORSTMANN B A97 B04 D16 *DL -135-389
ification of peroxidase - 54585B/30
30.05.75 PROCTER & GAMBLE CO A96 D22 E34 F07 =GB 1549-012
itary panties for women which reduce odours - 92426X/50
01.08.75 PROCTER & GAMBLE CO B05 D21 =GB 1549-074
-trifluoromethyl-phenyl-(n')-biguanido-alkanes - 11095Y/07
11.01.78 PROCTER & GAMBLE CO A97 D25 E23 (A25) *EP ---3-149
ashing and bleaching laundry compsn. - 54921B/30
- 20.07.76 PROJEKTIERUNG CHEM D17 E13 F09 =US 4160-695
ucose recovery from cellulosic plants - 08656A/05
02.10.75 PULLMAN INC A41 D15 E14 =GB 1549-331
ducing phenol content of waste water of phenol prodn. from cumene - 474Y/16

- 07.12.77 RABAM LTD B05 D18 (B03 B07) *EP ---3-064
roduction of vitamin/A analogues into respiratory tract - 54892B/30
= 11.03.77 RABBITS FUR ANIMALS C03 D13 *SU -626-752
anulated feed mix for young rabbits - 55718B/30
19.09.77 VEB RATIONAL HALLE D16 =J5 4074-275
ant extn. esp. for spirits industry - 24168B/13
- 16.03.78 REAKTOR BRENNELEMEN D15 E31 K05 M25 *BE -874-886
anium cpds. recovery from waste solns. - 54518B/30
- 10.01.78 REALDYME D13 =DT 2900-561
creasing the nutritional value of wheat milling wastes - 49000B/27
- 10.01.78 SOC REALDYME D13 =NL 7900-123
creasing the nutritional value of wheat milling wastes - 49000B/27
/ 24.10.77 REED C W D15 #FR 2406-717
wer plant having condenser with hot well - 79069Y/44
23.12.74 REYNOLDS R J IND INC D16 (D17) =SU -627-761
occulating active enzyme microbial cells - 11025X/06
N 20.10.77 RHONE-POULENC INDUSTRIES D15 *FR 2406-610
eating waste water contg. oxidisable material, esp. sulphur derivs. - 962B/30
N 16.01.78 RHONE-POULENC INDUSTRIES D17 (D16) =DT 2901-485
anthomonas polysaccharide(s) used to prepare aq. gels - 52555B/29
/ 09.12.77 RIESS G A96 D21 =DK 7805-464
ental surgical implant for securing crowns, bridges etc. - 24021B/13
/ 09.12.77 RIESS G A96 D21 =SW 7811-588
ental surgical implant for securing crowns, bridges etc. - 24021B/13

ROHM 12.05.71 ROHM & HAAS CO B03 C01 D22 E12 =J5 4073-776
Metal complexes of 3-isothiazolones - 76318T/48
ROHM 17.09.75 ROHM & HAAS CO A82 D18 E19 G02 (A25) =US 4160-642
Increasing solubility of acid or metal chelate dyes - 07492W/05
ROQF 17.11.75 ROQUETTE FRERES SA D13 =US 4160-849
Potato pulp contg. gelatinised starch - 36726Y/21

*SANN 28.11.77 SANYO KK A14 D15 F06 H01 (F09) *J5 4074-841
Water-in-oil emulsion of water-soluble vinyl polymer - 55304B/30
*SANR- 26.11.77 SANREI REINETSU KK D22 J01 (J09) *J5 4075-179
Treating malodorous gases from human waste - 55376B/30
*SANR- 26.11.77 SANREI REINETSU KK D22 J01 (J09) *J5 4075-180
Burning malodorous gas from human waste etc. - 55377B/30
SANY 26.11.73 SANKYO KK B02 C02 D13 =J7 9017-755
7-Beta-Acylamino-7 alpha-methoxy-cephalosporins - 38027W/23
SAOC 17.11.77 SANRAKU OCEAN B02 C02 D16 =J5 4073-788
N-Des:acetyl antibiotic PS-5 - 40957B/22
*SASA- 25.11.77 SASAKURA KIKAI SEIS A88 D15 J01 *J5 4074-285
Sea water desalination including osmotic filtration - 55255B/30
SCHC 08.09.75 SCHERICO LTD A96 D21 E14 =GB 1549-326
Aq. sub-protective compsn. - 18410Y/11
SCHD 20.10.77 SCHERING AG D15 M25 (M14) =FR 2406-611
Metal recovery from chemical surface treatment waste waters - 35468B/19
SCHO- 28.10.77 SCHOXI AG D11 =SF 7803-291
Whipped foam for cakes - 72923A/41
*SCHR- 00.00.76 SCHREIBER-KLARANLAG D15 *DS 2807-574
Bar screen cleaning rake used in waste water treatment - 54637B/30
*SCHU/ 27.02.78 SCHUSTER H C03 D15 *DL -135-375
Purification of waste water contg. pesticides etc. - 54578B/30
SCMA 05.04.74 SCHMALBACH-LUBECA D12 =DS 2416-650
Raw fish steamed and dried in open cans - 69115W/42
SHOW- 10.02.75 SHOWA KOJI KK A60 D15 E36 M11 =J7 9018-064
Removal of boron fluoride cpds. from waste water - 73136X/39
SMIK 16.01.78 SMITH KLINE INSTRUM B04 D16 J04 =DT 2901-391
Determination of creatine kinase isoenzyme(s) - 52549B/29
SNAM 20.10.77 SNAMPROGETTI SPA B07 D13 E13 (B03) =FR 2406-636
2,5-Di:alkyl-4-hydroxy-di:hydro:furanone prodn. - 31582B/17
SNLE 17.01.75 STANLEY ELEC KK D15 J03 =J7 9018-063
Electrolytic redn. of chromic acid - 67712X/36
SODR- 09.12.77 SODRA SKOGSAGARNAS D22 F09 #SW 7714-021
Feed arrangement of continuous sheets of pulp to dry-laying machine - 44035B/24
STAM 19.11.71 STAMICARBON NV B05 D13 E16 =J7 9017-727
Alkyl esters of aspartyl dipeptides - 32468U/23
STAU 12.01.78 STAUFFER CHEMICAL CO D12 =DT 2900-442
Filler for minced meat prods. - 52535B/29
STBR 13.04.70 STANDARD BRANDS INC D16 E13 (D13 D17) #DS 2017-590
Fructose-contg syrup produced enzymatically - 68410S/43
STEI 23.07.76 STEINECKER A MASCH GMBH D16 =GB 1549-083
Rectangular vessel for boiling beer wort - 83032Y/47
STER 07.11.77 STERLING DRUG INC D15 =J5 4075-479
Compressing injection air for wet oxidn. purificn. of organic waste - 33356B/18
STER 10.11.77 STERLING DRUG INC D15 =J5 4075-859
Treating waste water by biological oxidn. and carbon adsorption - 35262B/19
STER= 03.11.77 STERLITAMAK PETROCH A60 B07 D13 E14 (B05) #SF 7703-298
Methyl-di:tert.-butyl:phenol purification - 49676A/28
STIE- 01.07.77 STIEFENHOFER C KG D22 =DS 2729-776
Sterilised bottle closed circuit cooling system - 02148B/02
*SUDA/ 26.11.77 SUDA N D15 E36 J03 *J5 4074-279
Appts. for electrolytically decomposing water - 55252B/30
*SUMI- 28.11.77 SUMIKIN KAKO KK D15 *J5 4075-163
Treating organic waste water with activated sludge - 55375B/30
SUMO 14.01.72 SUMITOMU KAGAKO KOG D15 E33 =J7 9017-717
Readily soluble aluminium hydroxide prepn - 04712V/03
*SUMO 29.11.77 SUMITOMO CHEMICAL KK D15 J01 *J5 4075-861
Filtering oil-contg. waste water - 55461B/30
*SUMO 19.01.78 SUMITOMO CHEMICAL KK D15 J04 *BE -873-554
Analysis of total nitrogen content of aq. systems - 54496B/30
SUNZ 25.10.78 SUNSTAR HAMIGAKI B05 D21 E12 (E34) =US 4160-822
Dentifrice contg. foaming agent - 32401A/18
*SYMA- 20.01.78 SOC SYMAC SPRL A31 D14 J02 *BE -873-577
Continuous mixer for particulate solids and liquids - 54500B/30

*TAIH- 25.11.77 TAIHEI KAGAKU SANGY A97 D25 (A11) *J5 4074-807
Detergent compsn. contg. cellulose deriv. - 55294B/30
TAKE 11.04.75 TAKEDA YAKUHIN KOGY B04 D16 =GB 1549-167
Biotics, P-2568 prodn. - 93385X/50
*TAKE/ 26.11.77 TAKESHITA M A97 D25 (D16) *J5 4074-809
Pulverous detergent compsn. - 55296B/30
*TAKG 25.11.77 TAKI KAGAKU KK D15 *J5 4075-161
Treating waste water contg. organic material - 55373B/30

TANA 09.04.77 TANABE PHARMACEUTICAL KK A97 B04 D16 (A11) =US 4160-697
Crude urokinase purification by adsorption chromatography - 76723A/43
TANA/ 13.09.75 TANAKA Y D13 =DS 2639-130
Encapsulated foodstuff - 22156Y/13
*TANA/ 30.11.77 TANAKA J B05 D23 E17 *J5 4076-515
Unsatd. branched chain alkyl acetate(s) prodn. - 55567B/30
TEEP 12.03.74 TEE PAK INC A97 D12 =DS 2510-800
Sausage skins of collagen coated with edible powder - 50970W/31
*TEHN- 31.05.73 TEHNOFRIG INTR D11 *RU --65-823
Continuous cooking in mechanical oven - B/30
*TEHN- 14.11.73 TEHNOFRIG INTR D11 *RU --66-841
Rolling and baking machine - B/30
*TEKH= 06.04.77 TEKHRYBPROM EXP PRD D12 *SU -626-749
Fish in particular sardine(s), loader - 55715B/30
TEPR- 02.04.75 GIE TEPRAL D16 =US 4160-787
Bitter principle prepn from hops - 81509X/44
THOM 18.01.71 THOMAE K GMBH B03 D21 E13 =DS 2102-172
Skin-care agents - 50278T/32
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =J5 4073-792
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =SF 7803-357
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
THOM- 05.10.73 IND CHEM THOMA GMBH D15 E34 (E14) =J7 9017-598
Neutralising environmentally harmful alkali metal sulphites - 25870W/16
TOKU 29.12.75 TOKUYAMA SODA KK A91 D15 J01 =J7 9017-587
Separation of acids by diffusion dialysis - 59896Y/34
*TOSE- 28.11.77 TOYO SEIYAKU KASEI D21 E31 *J5 4075-192
Compsn. for preventing tooth corrosion - 55378B/30
TOYM 10.01.78 TOYOBO KK D15 J01 =GB 2012-187
Liquid-liquid separation device - 52906B/29
TRAU= 16.09.76 TRAUMATOL ORTHOPAED A96 D22 #GB 1549-328
Internal bone prosthesis with binder contg. antiseptic - 23472A/13
TROM 02.02.74 TROMMSDORFF H FA A96 B04 D21 (A11) =DS 2405-002
Sol collagen prodn from human tissue - 55830W/34
*TUMC/ 23.03.77 TUMCHENOK V I D16 *SU -626-813
Centrifugal disc sprayer for spraying protein feed products - 55757B/30
*TUMC/ 23.03.77 TUMCHENOK V I D16 *SU -626-814
Atomising device used in spray dryer for protein feed products - 55758B/30
*TWIN- 24.10.77 TWINSBURG INVEST CO D21 *FR 2406-448
Cosmetic compsn. for soaking bandages to give slimming effect - 54955B/30

*UBEI 19.08.77 UBE INDUSTRIES KK D17 E13 *J5 4032-413
Ketose prepn. - 55029B/30
*UCAN= 19.04.77 UKR CANNING IND RES D14 *SU -627-812
Preserves sterilising autoclave basket - 56029B/30
*UCHE= 14.03.77 UKR CHEM EQUIP RES DES D12 *SU -627-810
Prodn. of powdered meat processing waste for use in animal feed - 56027B/30
*UGIN 27.01.78 UGINE KUHLMANN A97 C03 D13 (A21) *BE -873-622
Animal feed blocks and agglomerates - 54510B/30
UHLI/ 30.12.77 UHLIN B E B04 D16 =EP ---3-062
Bacterial culture process - 52679B/29
ULVE/ 01.12.76 ULVESTAD O P C03 D13 #US 4160-408
Foodstuff treatment tank - 34800Y/20
UNIC 03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) =SF 7803-345
Peelable cellulosic casing for food prods. - 37518B/20
*UNIC 09.03.78 UNION CARBIDE CORP D12 *US 4160-305
Inserting sizing disc into casing esp. for viscous meat emulsion - 56110B/30
*UNIC 28.03.78 UNION CARBIDE CORP A26 D21 F06 H07 (A25 A60 A87 A97) *US 4160-775
Siloxane prepn. by reacting substd. allyl cpd. and organo:siloxane - 56219B/30
UNIL 09.03.70 UNILEVER NV D13 =DS 2110-575
Edible water-in-oil emulsions prepn - 58645S/36
UNIL 18.08.70 UNILEVER NV D24 E19 (D25) =J7 9017-762
Toilet soaps - 14467T/09
UNIL 11.10.72 UNILEVER NV D13 =DS 2350-638
Coated peanuts - 01964U/02
UNIL 18.10.77 UNILEVER NV A96 D22 (A25) =FR 2406-471
Particulate absorption material with improved wettability with blood - 31891B/17
UNIL 18.10.77 UNILEVER NV A96 D22 (A25) =SF 7803-160
Particulate absorption material with improved wettability with blood - 31891B/17
UNIL 09.01.78 UNILEVER NV A97 D25 (A25) =NL 7900-077
Aq. liq. detergent compsn. free from active salt additives - 50886B/28
*UNIL 12.01.78 UNILEVER NV D21 (D25) *DT 2900-721
Washing compsn. contg. detergent and deodorant - 54833B/30
*UNIL 12.01.78 UNILEVER NV D24 *DT 2900-722
Deodorising textile washing compsn. - 54834B/30
UNIL 12.01.78 UNILEVER NV D24 =EP ---3-171
Deodorising textile washing compsn. - 54834B/30
UNIL 12.01.78 UNILEVER NV D21 (D25) =EP ---3-172
Washing compsn. contg. detergent and deodorant - 54833B/
*UNIL 13.01.78 UNILEVER NV D22 (D21) *DT 2901-068
Deodorising article for use on human skin - 54852B/30
*UNIL 13.01.78 UNILEVER NV D21 (D24 D25) *DT 2901-069
Deodorant compsn. for treating skin - 54853B/30
UNIL 13.01.78 UNILEVER LTD D22 (D21) =GB 2012-165
Deodorising article for use on human skin - 54852B/30
UNIL 10.01.79 UNILEVER LTD D21 (D25) =GB 2012-302
Washing compsn. contg. detergent and deodorant - 54833B/
UNIS- 01.11.77 UNICOPE INC A97 C03 D13 =BR 7807-122
Lubricating binder for animal feeds - 65374A/37
UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =SF 7800-996
Lubricating binder for animal feeds - 65374A/37
UNIX 21.10.77 UNISEARCH LTD A88 D15 J01 K05 =FR 2406-
Anisotropic, synthetic, multilayer, molecular sieve m
35640B/19
*UNVO 08.03.77 UOP INC C04 D15 *US 4160-732
Mechanically dewatering fibrous organic waste - 56196B/30
*UPOU= 10.10.75 UKR POULTRY BREAD C04 D13 (C03) *SU -6
Conversion of bird droppings to fertiliser or fodder - 55881B/
*UPOU= 14.03.77 UKR-POULTRY RES INS D12 *SU -627-810
Prodn. of powdered meat processing waste for use in an
56027B/30
*URFO 16.05.77 URALS FORESTRY INST A11 C03 D16 *SU -626-
Stimulating resin exudation from coniferous trees - 55707B/30
*UWAT= 19.08.75 UKR WATER ENGGS INS D15 J01 *SU -627-
Siphon unit for liquid e.g. water and effluent, purifiers - 5603
UYMA- 20.10.77 UNIV MANCHESTER INS B04 D16 (D13 D1
2406-664
Biological purificn. of waste water, fermentation of ye
14223B/08
UYMA- 20.10.77 UNIV MANCHESTER B04 D16 (D13 D15) =SF
Biological purificn. of waste water, fermentation of ye
14223B/08

*VAKH= 19.04.76 VAKHSH NITROGEN FER A97 C03 D13 E16 (A
-626-753
Fodder additive for livestock e.g. cattle and sheep - 55719B/30
VDON/ 31.03.76 VAN DONKELAAR J A D14 =GB 1549-098
Safe, automatic plant stalk stripping machine - 52278Y/30
*VEKE- 15.06.78 VER KESSELWERKE AG D15 *DS 2826-132
Sludge conditioning system - 54644B/30
*VEND= 06.10.76 VENDING EQUIP RES D12 *SU -627-805
Sausage and other meat prods. cooling - 56022B/30
*VERW- 04.04.78 VERWEIJ A BV D11 *BE -875-069
Automatic finishing of treacle-filled waffles - 54554B/30
*VYRM- 07.12.77 VYRMETODER AB D16 M25 *SW 7713-889
Extracting metal from sulphide ore in situ - B/30
VZUI/ 21.10.77 VAN ZUILICHEM D J D13 =FR 2406-474
Shelling cocoa pods by IR irradiation - 31580B/17

*WAKP 30.11.77 WAKO PURE CHEM IND KK B04 D16 J04 *J5 40
Colorimetric determination of substrate or enzyme activity - 55
*WAKY- 24.11.77 WAKYO KAGAKU KOGYO D25 E34 *J5 4073-
Cleaning compsn. for drain-pipe, lavatory etc. - 55112B/30
WARN 04.06.73 WARNER-LAMBERT CO D22 =DS 2425-714
Cleaning and sterilisation of soft contact lenses - 88163V/51
WHEE 03.06.75 WHEELABRATOR INCINE D15 J09 M28 =DS 26
Multiple hearth furnace operation control - 43671X/23
WIEL- 14.09.77 FA WIELAND T D21 M26 =DS 2741-277
Copper-free gold dental alloy - 24110B/13
WISS- 20.10.77 WTZ MIKROBIOLOGIE D16 =FR 2406-663
Microorganism cultivation plant - 33606B/18
*WOLF/ 01.03.78 WOLF F D25 E11 *DL -135-398
Washing and cleaning compsn. esp. useful for textiles - 54592
WYSS 25.05.77 ESCHER WYSS AG D13 =BR 7803-208
Prepn. of rapidly dissolving vegetable prods. e.g. peas - 16295

ZENK- 26.02.75 ZENKOKU NOGYO KYODO C03 D13 E12 (C0
9017-675
Substitute milk compsn for suckling calves - 78616X/42

CD
528 Q00
275 Q01
239 Q01
239 B30

ADF
026 R09
448 R37
757 X04
442 B30+

BCDE
049 R44+
-649 R45
-216 R46
-452 S16
-184 S50
-098 S51
-096 S51
-094 S51
-097 S51
-099 T26
-767 T26
-298 T26
-470 T50
-225 T50
-621 U06
-323 U14
-322 U15
-324 U15
-077 U20
-603 U29
-604 U29
-834 U29
7-452 U35
7-352 U35
9-682 U44
3-456 X01+
1-326 X03+
2-216 X28+
5-310 X35+
5-322 B30+

D
3-812 S36
2-934 S39
0-575 S40
3-974 S47
1-796 T07
1-465 T45
7-511 U34
8-017 W46
0-575 B30

DE
5-289 S43
7-590 S44
6-928 T11
7-119 T11
9-748 T36
7-590 B30+

ADEJ
28-802 T01+
07-818 T01
27-506 V33
71-944 W33+
69-244 X30+
33-971 B30
17-714 B30

DE
71-491 T09
11-348 T10
05-033 T12
40-789 T12
04-438 T29
14-604 U17
05-442 U17
51-214 V31
63-453 W30
17-762 B30

T BD
71-694 T10
42-424 T11
11-613 T11
05-289 T13
05-946 T30
55-347 V23
21-208 V28
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36746-X DEJ
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43671-X DJM
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46337-X AD
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78616-X CDE
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81509-X D
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83517-X ADG
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GB 1549-023 B30

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SW 7606-101 Y03
DK 7602-374 Y07
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GB 1549-167 B30

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SW 7606-854 Y05
DK 7602-715 Y10
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FR 2314-671 Y14
GB 1549-196 B30

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DT 2526-675 Y02
GB 1549-213 B30

11095-Y BD
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NL 7608-480 Y08+
DT 2633-651 Y08+
SW 7608-566 Y11
DK 7603-436 Y16+
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J5 2054-036 Y24+
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OE 7605-667 A31+
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22156-Y D
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23563-Y D
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OE 7600-998 B22
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23746-Y ACDF
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36726-Y D
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41767-Y D
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GB 1549-145 B30

52278-Y D
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02148-B D
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DS 2729-776 B30

08272-B D
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J7 9017-593 B30+

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FR 2401-998 B23
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22259-B AD
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DS 2741-072 B30+

24008-B D
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GB 2012-402 B30

24021-B AD
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NL 7811-747 B26+
GB 2010-095 B26+
DK 7805-464 B30
SW 7811-588 B30

24110-B DM
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DS 2741-277 B30

24168-B D
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FR 2403-385 B25
J5 4074-275 B30

27923-B D
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DT 2853-001 B25+
GB 2009-586 B25+
NL 7811-993 B26+
DK 7805-523 B30+
SW 7812-681 B30+

29788-B D
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DT 2900-930 B30+

31576-B D
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NL 7711-612 B19
FR 2406-814 B30

31580-B D
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NL 7807-872 B19
FR 2406-474 B30

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J5 4063-068 B26
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SF 7803-225 B30

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SF 7803-129 B30+

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33356-B D
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GB 2007-311 B20
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J5 4075-479 B30

33440-B D
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DS 2759-504 B30+

33600-B BDE
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33606-B D
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33615-B D
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DK 7804-906 B25+
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SF 7803-357 B30+

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DT 2848-051 B20
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DK 7804-937 B25
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NO 7803-724 B26
NO 7803-722 B26
BR 7807-290 B26+
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SW 7811-460 B27
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SF 7803-366 B30
SF 7803-367 B30
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SF 7801-113 B30

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DK 7804-634 B24
BR 7806-967 B28+
FR 2406-469 B30+

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J5 4059-339 B25
FR 2406-437 B30

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GB 2006-603 B19+
DK 7804-839 B24
NO 7803-532 B25
SW 7810-872 B26
SF 7803-197 B30

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GB 2012-177 B30

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SF 7803-345 B30

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SF 78

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40957-
EP --
J5 40

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J5 40

42661-B
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SW 7713

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DK 7805

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EP ---2
DK 7805

48335-B
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DK 7805

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553 B26
301 B30

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640 B26
554 B26
302 B30

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-123 B30+
-561 B30+

BDE
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-424 B28
-631 B30

DE
-553 B27
-663 B30
2-301 B30

AD
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0-232 B29
1-944 B29+
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D
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3-023 B30

D
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6-422 B30+

D
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2-233 B30

BCDE
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DE
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B D
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012-157 B30

-B DJ
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012-187 B30

-B CD
--2-893 B29+
012-167 B30+

-B DFJ
011-796 B29+
900-064 B30+

54496-B DJ
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54500-B ADJ
BE -873-577 B30

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BE -873-598 B30+

54505-B DEH
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54506-B DEH
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54513-B BCD
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54547-B AD
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54554-B D
BE -875-069 B30

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DL -135-321 B30

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54571-B D
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54578-B CD
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54583-B ABDE
DL -135-381 B30

54585-B ABD
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54586-B ADJ
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54590-B DHL
DL -135-396 B30

54591-B DH
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54592-B DE
DL -135-398 B30

54614-B CDE
DL -135-476 B30

54635-B D
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54637-B D
DS 2807-574 B30+

54644-B D
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54647-B D
DS 2841-414 B30

54732-B D
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54755-B D
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54756-B DE
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DT 2801-817 B30
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DT 2801-968 B30

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54833-B D
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54834-B D
DT 2900-722 B30
EP ---3-171 B30

54852-B D
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54853-B D
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54894-B BD
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DK 7804-864 B24
SF 7803-282 B30

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54938-B ADF
EP ---3-186 B30+

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55722-B D
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55723-B D
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55736-B DJ
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55737-B DJ
SU -626-792 B30

55757-B D
SU -626-813 B30

55758-B D
SU -626-814 B30+

55859-B D
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56190-B AD
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56192-B D
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56193-B DHJ
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56194-B DJM
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56196-B CD
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56198-B D
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33714B B05C03D22E14
37435B D18P1

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2 65374A A97C03D13
7 37255B A14D21G03

705
9 46178A C03D13+Q3
2 B D12P6

804
4 54894B B03D16

805
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1 48336B D12Q3
2 48337B D12Q3
4 24021B A96D21P3
5 44050B C03D13
3 76588A D15P1Q4+R5
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4 44323B B04D21
9 44034B D25E19
3 27923B D16+P4
9 42347B D13
3 47540B D15E16M14

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2 54558B D13
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9 74674A D14
7 54571B D16P4
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97 54591B D16H04
98 54592B D25E11
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76 54614B C04D13E36
86 38450A B05C03D21E19
91 76360A D13
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DS 2207
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*670 54811B B02D16

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Section D:

FOOD
DETERGENTS

ABSTRACTS

INDEXES

- **II - PATENTEE**
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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	24 JUL - 30 JUL 79	873,667 - 873,814
-Non Delayed	16 JUL 79	875,076 - 875,249
BRAZIL	17 JUL 79	7,704,325 - 7,807,499
DENMARK	9 JUL 79	7,704,669 - 7,805,713
W. GERMANY		
-DAS	26 JUL 79	1,468,843 - 2,846,489
-OLS	26 JUL 79	2,731,444 - 2,903,007
FRANCE*	25 MAY 79 (BOPI 29 JUN 79)	2,406,943 - 2,407,648
UNITED KINGDOM	1 AUG 79	1,549,341 - 1,549,750
		2,012,531 - 2,013,070
JAPAN		
-Unexamined	—	47,023,896 - 52,015,805
	19 JUN - 25 JUN 79	54,076,566 - 54,079,272
-Examined	5 JUL - 11 JUL 79	79,018,081 - 79,019,000
NETHERLANDS	16 JUL 79	160,700 - 161,032
	16 JUL - 22 JUL 79	7,800,355 - 7,900,423
NORWAY	9 JUL 79	7,704,247 - 7,804,227
AUSTRIA	15 JUL 79	7,103,017 - 7,902,132
PORTUGAL	17 JUL 79	64,024 - 68,854
RUMANIA	JANUARY 79	53,580 - 68,695
SOVIET UNION	—	203,816 - 629,259
SWEDEN**	16 JUL 79	7,712,775 - 7,904,974
UNITED STATES		
-Reissues	17 JUL 79	Re30,043 - Re30,048
-Patents	17 JUL 79	4,161,042 - 4,161,791
PCT	26 JUL 79	7,900,442 - 7,900,492

*Printed patents actually published early - mid July, 1979

**Includes numbered Basics from Weeks B13,B17 and B22

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

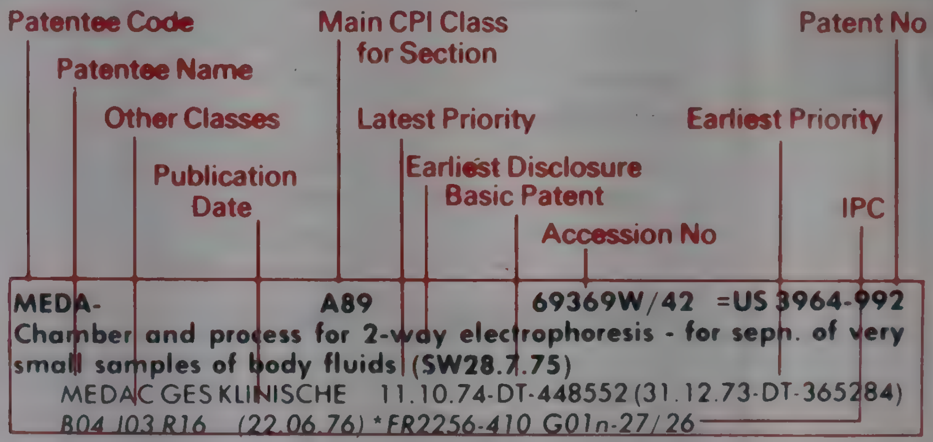
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

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D1: FOOD; FERMENTATION

D11 : BAKING

D11 40252X/22 =DS 2452-100
heated hot air baking oven - with expanded metal flow
der around radial flow fan housing
EFF WERKE GMBH 02.11.74-DT-452100 (00.00.73-DT-307914)
*(26.07.79) *DT2452-100 A21b-01/28*

parent patent describes a gas-fired baking oven with
ir circulated by a fan at the rear of the baking oven.
impeller of the fan is surrounded by a flow grating,
isting of expanded aluminium or steel sheet, with rhom
d openings. The openings are so dimensioned that the
ir flow rate for each opening amounts to 2.4 m^3 per
.

his is a simple way of ensuring that the hot air deliv-
by the impeller is always uniformly directed to the
e plate and the food is browned evenly. 2.11.74 as
00Add to 2307914(6pp39).

E D11 76157Y/43 =DS 2659-027
-fried cooked porous noodles - prepd. by coating wheat flour
salt noodles with oil and emulsifier, steaming and drying
ANEBO KK 05.08.76-JA-093318 (19.04.76-JA-044778)
*(26.07.79) *DT2659-027 A23l-01/16*

ant noodles become edible by treatment with water of
C for 3 minutes. The raw noodles contain a starch com-
ent, esp. wheat flour and 1-6 wt.% NaCl and are treat-
on the surface with an oil-in-water emulsion contg. 2.7-
wt.% water, 0.2-5 wt. % edible oil and 0.01-5 wt.%
lsifier, all percentages based on the wt. of noodles.
noodles are treated with vapour 2-5 minutes at a pres-
e of 0.5-1.5 kg/cm^2 to an α-conversion grade of the
rch of $\geqslant$93% and then dried at $<$ 60 °C. 27.12.76 as
027(14pp068).

JL/ ★ D11 56663B/31 ★GB 2012-548
ezable compsn., cookable to sweet souffle - prepd. by addn. of
fly beaten egg whites to a mixt. of cooked pastry cream and
ooked choux paste
BRULE M R 13.02.79-GB-005006 (14.11.77-GB-047343)
(01.08.79) A23l-01/32

Mixt. consists of a homogeneous blend of 1.2-1.8 vol. of a cooked pastry cream (I), 1 vol. of an uncooked choux paste (II), and 1.2-1.8 vol. of stiffly beaten egg whites (III) (vols. based on vol. of basic liq. of each ingredient).

Baked prods. prepd. from the frozen mixt. above fro excellent light, fluffly baked sweet souffles with good rising props., exceptional stability and maintenance of cell structure, etc. In addn., the foods may be prepd. by unskilled personnel, may be cooked in Al containers, and may be mass produced. 13.2.79 as 005006 (4pp478)

EISA ★ D11 56814B/31 ★J5 4076-8
Quality-improving agent for noodles - prepd. by blending eg
white, fatty acid mono:glyceride and lecithin
EISAI KK 29.11.77-JA-142199
(19.06.79) A23l-01/16

The quality-improving agent is prepd. by combining egg while 0.5-3 pt. wt. (as solid), fatty acid monoglyceride 0.1-3 pt. wt. and lecithin 0.03-0.3 pt. wt. By combining the quality-improving agent 1% in flour the texture, smoothness, glossiness and taste and flavour of noodles (e.g. raw noodle, boiled noodle, fried noodle, dry noodle and instant noodle of Japanese noodle, buckwheat noodle, Chinese noodle, macaroni, spaghetti, etc..) can be improved.

As egg white raw white, freeze-dried white, salted white which is byproduced on preparing lysozyme by IEP-crystallising method and desalted white which is obtd. by de-salting the salted white, can be used. Pref. powdery white obtd. by drying and pulverising is used. Pref. 14 18C fatty acid and soy bean lecithin and yolk lecithin can be used. 29.11.77 as 142199 (4pp5).

D12 : MEAT ; FISH PROCESSING

IC ★ D12 56294B/31 ★BE -873-738
apping for food products esp. sausages - coated with egg
umin and maillard reaction product to give smoke colour
UNION CARBIDE CORP 27.01.78-US-872769
Q32 (26.07.79) B65d C08j

e wrapping particularly one the surface of which, lsp
e interior surface, is coated comprises a coating consi-
ing of an albumin and the reaction product of a reducing
gar and an amino-acid and/or an amino-acid derivative.
e wrapping is prepd by coating the material which is
ef. based on collagen or cellulose. A novel coating co-
psn. comprises a mixture of egg albiumin and the above
action product.

The wrapping is esp. used for sausage type products.
he coating enables a brown smoke colour which is resist-
nt to rubbing unlike the use of the Mailland sugar/amino
cid reaction product alone. 26.1.79 as 873738 Add to
68516 (22pp597)

MHB D12 45743B/25 =DS 2738-845
ppts. for sepg. bone structure from fish - cuts off passable parts
om spine and tail fin SW 26.3.79)
NORDISCH MASCH R BAADER 29.08.77-DT-738845
*(26.07.79) *DT2738-845 A22c-25/16*

A machine to separate the parts of fish skeletons which can be liquored consists of two inclined feed plates which leave a gap between them. This guides the backbone as th skeleton is fed into the machine with the caudal fin first. Two contra-rotating discs overlap the fishbones and their edges guide the backbone on top of both sides to feed the skeleton in the proper alignment to the pair of cutter blades which separate the fishbones from the spine.

This ensures a clean cut and a neat sepn. of parts whic can be liquored. 29.8.77 as 738845(5pp39).

KRAT ★ D12 56439B/31 ★DT 2802-743
Meat band saw - with plastic foam blade cleaning blocks and plastic
scraper lips
BIZERBA-WERKE KRAUT KG 23.01.78-DT-802743
A88 P54 (26.07.79) A22c-17 B23d-55

A meat bandsaw for butchers is kept clean by a block of plastic foam which has been cut parallel to the saw blade and is pressed with the cut surface against the sides of th saw blade. This removes not only bond splinters and coarse particles but also the film of smudge which is caused by the gat content of the meat and would build up as it is not removed by ordinary scrapers.

Specifically the saw blade passes after a first scraper unit with revolving brushes through a second scraper unit with plastic foam inserts. A pref. material is compressible polyurethane foam. Two additional scraper lips with upturned edges contact the saw blade on a bracket with elongated holes. A tray collects the scrapings from the saw blade. 23.1.78 as 802743 (14pp39).

NEST ★ D12 56529B/31 ★DT 2851-908
Aromatising material imparting pork flavour - is prepd. from mixt. contg. aminoacid source, aliphatic mercapto-carboxylic acid or salt and sage oil
NESTLE SA 25.01.78-US-872247
E17 (26.07.79) A23l-01/22

Material for imparting a pork flavour to foods consists of the reaction prod. of a mixt. which is free from added monosaccharide and contains (a) 5-300 pts. wt. aminoacid source, (I), (b) 1pt. wt. lower aliphatic mercaptocarboxylic acid, (II), or its salt and (c) 0.005-0.3 pts. wt. sage oil resin (III).

(I) may be an animal or plant protein hydrolysate. (II) may be 2-mercaptopropionic acid, (IIa), (prefd.), mercaptoacetic-, 3-mercaptopropionic-, mercaptosuccinic- or 3,3,-dithiodipropionic acid, or an Na-, K or NH_4 salt. For gravy flavouring, the mixts. contain esp. 25-300 pts. wt. (I), whereas for flavouring cereals, soya protein extrudate or cold meats, quantity of (I) is esp. 5-200 pts. wt. The mixts. may also contain oil of thyme, celery or cloves or smoked flavour aromatic essence. 30.11.78 as 851908 (17pp200).

TETR ★ D12 56545B/31 ★DT 2901-118
Working up fish raw material for human nutrition - by dividing to fluid condition, sterilising and coagulating, cooling, re-processing and packing (NL 25.7.79)
TETRA PAK DEV SA 23.01.78-SW-000776
(26.07.79) A23b-04 A23l-01/33 A23l-03/16

Worked up, packed food prod. is prepd. by (a) dividing the raw material mechanically and/or chemically to particles having size< 5 (< 1)mm, to achieve a homogeneous, flowable or semi-liq. condition; (b) heating the raw material, during or after it is divided, until it is sterile and the protein components coagulate at least in part; (c) cooling the at least partly coagulated prod. to below coagulation temp., re-processing, homogenising and dividing it up under sterile conditions, until flowable or semi-liq. and (d) packing the sterilised prod. under sterile condieions in packs which are inaccessible to bacteria and in which the prod. can be allowed to thicken to a semi-solid form by means of coagulants, water-absorbing organic cpds. or opt. added materials.

Food for human nutrition can be prepd. from Euphausiacea, shrimps, crabs or thier parts, opt. cleaned fish, fish-cleaning waste esp. from lean, filleted fish mfr. The prod. has good storage properties, esp. heat-stability, good taste, colour, consistency and structure. 12.1.79 as 901118 (20pp200).

TOKA- ★ D12 56817B/31 ★J5 4076-858
Prepn. of conc. protein of Okiami (Krill) - by crushing Krill to paste, coagulating the protein by heating, defatting, dehydrating and drying
TOKAI SUISAN KIKAI 28.11.77-JA-141581
(19.06.79) A23j-01/04 A23l-01/32

Okiami (Krill) is crushed to give paste like material, the paste is heated to coagulate the protein contained in it under thermal modification, whereby there is obtained porous cake of protein having many foamed pores, and then the resultant is subjected to defatting, dehydration and drying.

The process gives Krill protein concentrate. The shell is pref. removed before the present process. The heating may be conducted by boiling, by dipping into boiled water, etc. for 10 - 30 minutes. The defatting process is conducted by repeated treatment of the material with hydrophilic organic solvent. Typical solvents to be used are ethyl alcohol, isopropyl alcohol, etc.. The dehydration and drying may be conducted by heating under hot air, etc. under reduced pressure or normal pressure. 28.11.77 as 141581 (6pp22).

TAKE D12 78732Y/44 =J7
Fibrous protein bundle mfr. - giving good appearance and for use as an artificial meat
TAKEDA CHEMICAL IND KK 19.03.76-JA-030585
*(06.07.79) *J52114-048 A23j-03 +A23l-01/31*

The method comprises adding water to proteinaceou
erial and mixing, heating and extruding the obtd. pl
proteinous lump through a perforated plate in a gase
medium. The novelty comprises using perforated pl
having orifices of different sizes and extruding the p
enious lump first through the small orifices and ther
large orifices, in order. Pref. the dies are compos
several perforated plates placed in order from that
smaller orifices to that of larger orifices in the extr
direction.

The orifice sizes are changed so that the size of
next plate has a cross section of twice that of the for
The starting vegetable protein is e.g. soy bean, and
70% water is added tothe proteinaceous material. Th
trusion is such that the temp. of extruded protein at
exit of the extruder is 145-155°C. Usually 2-5 perfo
plates are used and the orifice size of the first plate
0.005-0.4 mm^2. The form of the perforation is not r
cted and the distance between perforated plates is
19.3.76 as 030585 A23j-3/00 A23d-1/31 (6.7.79)
TAKEDA CHEMICAL IND KK (4pp)(J52114048)

ITAG- D12 19380R/12 =NL-
Poultry plucker with flexible carcass suspension
INT AGRI-SYST INC (INT -) 19.04.67-US-631989
*(16.07.79) *GB1185-803 A22c-21/02*

Feathered carcasses are plucked by means of a seri
rotating cylinders with rounded ends past which the s
ded fowl is transported. The cylinders and their end
equipped with long elastic plucking fingers which re
the feathers and are mounted on either side of the pa
traversed by the fowl but are diagonally placed with r
pect to each other.

The diagonal placement combined with the extra le
of the fingers enables the fowl to pass through the plu
machine with a minimum of damage to the skin or br
of the meat. 17.1.75 as 000564(6pp1370)

SCHN- D12 37878S/22 =NL-
Meat precomminuting machine
FIRMA KARL SCHNELL (GRFJ) 08.03.68-DT-632883
*P41 (16.07.79) *US3580-315 B02c-18/08*

Mincing machine comprises a vessel with cylindrical
and a conical lower section which feeds into the minc
cutter. The conical wall is equipped with precutters
reduce the size of the meat pieces before they enter
mincer. Apart from the main stirrer which is mount
a shaft attached to the lid of the vessel, there is a se
stirrer mounted on a vertical shaft passing through th
bottom of the vessel. This second stirrer causes the
to pass through the precutters a second time thereby
ring that all the lumps of meat are reduced to the cor
size for the mincer and avoiding blockages. 8.10.68
014349(4pp1370).

ELSA/ D12 47077R/26 =NL-16
Apparatus for cutting up meat with sickle- - shaped knives
ELSASSER E (ELS /) 21.12.68-DT-816416
*P62 +P41 (16.07.79) *NL6918-968 +B02c-18/20*

A cutting knife consists of a blade with an approximate
sickle shape of which the outer edge forms the cutting
The outer edge is waved and the alternate peaks are s
-ened from opposite sides.

The blade is used in a cutting tool for cutting meat
sausages etc. The alternating cutting faces extend the
-ful life of the blade between sharpenings and, since t
meat is not continually compressed in one direction at
right angles to the blade during cutting, less heat is ge
rated. Consequently, the quality of the product is not
versely affected by heat during the cutting. The tende
of the blade to mash the meat rather than cut it is also
avoided. 17.12.69 as 018968(6pp1370).

= ★ D12 57634B/31 ★SU -628-869
cal animal stunning unit - with automatic application of
lyte to spring-loaded AC electrode skin contact pressure pads
MPEL RES COMBINE 03.02.77-SU-449983
28.08.78) A22b-03/06

od for electrically stunning animals, as used in hterhouses, veterinary surgery and animal farming, makes use of the effects of an alternating electric cur .

e stunning process is speeded up by applying an elect te directly to the animal's skin at the points where urrent-supplying electrodes make contact.

e animal is herded into a chamber so that it comes ainst spring-loaded electrodes which are firmly pres against its body. The application of the electrolyte is automatically. After 5-10 seconds - to allow suffi- time for the electrolyte to react chemically with the al's skin - the current is switched on. After a pre- mined time the current is switched off and the stunn- imal sent on for further treatment. The time taken e current to act is shortened without damaging the al's hide, and the amount of energy is also reduced.
akov, V.K., Fasolko, K.Yu. Bul. 39/25.10.78.
77 as 449983 (2pp29)

= ★ D12 57635B/31 ★SU -628-870
htered animal stomach cleaner - has trough and guides with
conveyor and ripping knives which release gastric contents
entrifuge
NGD MEAT IND COMB 03.01.77-SU-440429
(01.09.78) A22b-05/18

device used in the preliminary processing of animal asses includes a conveying unit, attachments to hold stomachs, receiving trough with slits through which attachments protrude, and knives.

he productivity and cleaning efficiency are increased roviding guides, mounted in series near the conveying on the opposite side of the hopper-proportionator n the receiving trough, plus a centrifuge. The convey- unit is a chain conveyor. The knives are fixed at inter s within the guides, which are above the conveyor bet- n the rows of chains and inclined towards the hopper- portionator, the cutting edges directed towards the dir- on of motion of the conveyor. The attachments to hold stomachs comprise hooked-grippers mounted between links of the chains.
lov, A.I., Fedin, A.I., Sakharov, A.P. Bul. 39/
10.78. 3.1.77 as 440429 (3pp29)

MD ★ D12 57636B/31 ★SU -628-871
matic industrial meat mincer - with inlet and outlet temp.
or signals sent to recorder and blade drive via recorder for
rolled mincing speed
OSCOW MEAT DAIRY INST 06.05.77-SU-486463
(29.10.78) A22c-17

unit has a mincing chamber with knife mechanism, ling hopper, motor, and sensors to determine the temp. he minced meat.

The final meat quality is increased while maintaining its ritional values, by varying the rotational speed of the e-blade mechanism, by adding a second sensor to deter ine the temp. of the incoming meat. A recorder regist- the difference in temps. between the raw meat and the ced meat. The input to the recorder is connected to temp. sensors and the output is connected to the motor a comparison unit.
Ivashov, V.I., Yurkov, S.G., Bubyrenko, V.K. et al.
Bul. 39/25.10.78. 6.5.77 as 486463 (2pp29)

LEME= ★ D12 ✓ 57666B/31 ★SU -628-94
Meat mincer knife - has cutting plates mounted on shaft with lea
screws for positioning, and cover plate and bolts for holding i
place
LENGD MEAT DAIRY 06.12.76-SU-426440
P41 (25.08.78) B02c-18/18

Knife for a meat mincer, comprises cutting plates fastened to a shaft by means of a pressure cover plate. The reliability with which the cutting plates are fastened is increased, by making the shaft with longitudinal grooves into which lead screws are positioned, these having bushings and a slider having rhombic projections. Slits are cut into the cutting plates, being directed towards one another and sloping towards the longitudinal axis. The rhombic projections are distributed in the slits. The angle of slope of the slits equals 15-20°C.
Odintsov V.P., Vashilov I.S., Bul.39/25.10.78 6.12.76
as 426440 (4pp29)

KART/ ★ D12 57832B/31 ★US 4161-158
Underground and surface dwelling fish bait preservation - by
storage in nutrient medium contg. antibiotic and stress relieving
drug
KARTESZ F A 03.08.77-US-821615
C03 P14 (17.07.79) A01k-67

Preserving underground and surface dwelling fish bait com prises packing in a medium contg. nutrients, an antibiotic and a stress relieving drug and maintaining at 33 to 55°F.

The medium can contain nutrients such as peat, sawdust, topsoil as a source of trace elements, chicken hay mash and maple leaf mold. Penicillin is a suitable antibiotic and cortisone is a suitable stress relieving drug. The pH should be in the range 5.5-6.

Used for preserving meal worms, maggots, earthworms, redworms, and esp. Northern night crawlers in a live state. 3.8.77 as 821615 (4pp916)

STAU D12 52535B/29 =US 4161-552
Filler for minced meat prods. - comprises partially soluble modified
whey solids material
STAUFFER CHEMICAL CO 12.01.78-US-868954
*(17.07.79) *BE-873-396 +A23c-21*

Comminuted meat is extended by adding a bindingly effective amt. of partially soluble modified whey solids to it. Solids are derived as a ppte. by either, adding a divalent metal ion to a cheese whey soln. and adjusting the pH to 6.0-8.0 to cause pptn. of solids, or adjusting the pH of a whey soln. contg. $\geqslant$ 20% acid cheese whey to 6.0-8.0 to cause pptn. of solids.

Whey solids comprise 23-54 wt.% lactose, 24-60 wt.% minerals and 15-27 wt.% protein. Minerals comprise 6-8 wt.% phosphorus, 6-12 wt.% calcium and 1.3-1.5 wt.% sodium.

Extension is equiv. or slightly better than that achieved using non-fat dry milk and/or modified non-fat dry milk. Has advantages of more uniform flavour and lower cost. 12.1.78 as 868954 (5pp931)

See Also
D13 GB 1549414

D13: OTHER FOODSTUFFS

K/ ★ D13 ✓ 56329B/31 ★BE -875-143
nestic prepn. of coffee infusion from ground coffee - includes
g. grounds via a sieve at above atmospheric pressure
UCKENS A 29.03.78-DT-813555
28 (16.07.79) A23f A47j

ocess comprises extraction of a determined amt of the fee with a portion of warm water, them sepg the liquid m the grounds by expression through a sieve at above atmospheric pressure and at a temp. below the boiling pt. of water. Pref. temp. is < 95 (80-90) °C, and the pressure is > 5 (5-10) bars. The hot water is pref. contacted with the coffee for a selected period and then the liquid is sepd.

Process enables a higher yield of higher quality coffee, as a result of avoiding oxidn. 28.3.79 as 875143 (7pp597)

HIPP/ ★ D13 B/31 ★BR 7708-756

Butter churn

HIPPOLITO N 28.12.77-BR-008756

(17.07.79) B01f-09/22

ALFA D13 24375R/15 =DS 1617-968

Pasteurising or sterilising plant

ALFA-LAVAL AB 25.04.66-SW-005545

*+P34 Q78 (26.07.79) *GB1188-164 +A611-03*

A plant for the continuous pasteurisation of a liquid (milk) includes a heat exchanger to raise the milk by indirect contact with hot water to the pasteurisation. A forward-flow heat exchanger cools it to the bottling temp. If the desired temp. is not reached, a 3-way valve directs the milk from the forward to a recycling heat exchanger. The secondary side of the forward heat exchanger is so arranged that it is shut off when the milk is recycled for a repeat treatment or when the plant is to be sterilised.

This eliminates dead-end sections and saves additional devices and equipment to reheat the liquid. 20.4.67 as 617968(10pp39).

BUDA/ D13 56937R/32 =DS 1782-155

Continuous automatic curd-to-agglomer - ation cheese-making

BUDAHN B E (BUD /) 19.10.67-US-676397

*P13 (26.07.79) *FR1588-647 +A01j-25*

In a system for the mfr. of Cheddar or Cheshire cheese, the whey is partly removed to form curds which are formed to a continuous strip. The strip is turned and allowed to pre-ripen to a suitable degree of acidity and consistency for breaking up into cubes. The pre-ripening treatment is effected by steam, leaving the layer continuous and with the residual whey content. The final operations are salting and finish ripening of the cubes.

Machinery is easy to service and to keep clean. 24.7.68 as 782155(12pp39).

NISS D13 78379S/50 =DS 1926-521

Minced meat-like food - from wheat gluten contg non ionic - surfactant

NISSHIN FLOUR MILL KK 24.05.68-JA-036005

*(26.07.79) *CA-887-593 +A23j-03*

A minced, meat-like food is made from wheat gluten. The wheat gluten, together with 0.1-5.0 wt.% (based on the gluten wt.) of one or more of the surface active cpds. laurylamine acetate, glycerine-fatty acid esters, propylene glycol-fatty acid esters, sorbitan-fatty acid esters and polyoxyethylene sorbitan-fatty acid esters is passed through a comminuting appts. The prod. is treated in water at 70-110°C.

The food has the texture of meat without need of a spinning stage to produce fibres. 23.5.69 as 926521(8pp068).

RALS D13 54024X/28 #DS 2627-613

Oilseed protein isolates prodn. - alkaline extract purified with active carbon to remove flavour colour aflatoxins etc.

RALSTON PURINA CO 22.11.74-US-526181 (19.06.76-DT-627613)

*(26.07.79) *US3966-702 A23i-01/14*

A protein extract from oilseeds, esp. soyabean, is purified by treating the extract at a pH > 8.5 with active carbon. The active carbon pref. has an ash content of < 8% and has previously been treated with an alkaline soln. The treatment removes the waxlike taste and smell of the protein extract. 19.6.76 as 627613(11pp068).

HENK ★ D13 56403B/31 ★DT 2802-396

Animal feed mixt. contg. proteolytic enzyme - and antibiotic of tetracycline type (NL 24.7.79)

HENKEL KG AUF AKTIEN 20.01.78-DT-802396

B05 C03 (26.07.79) A23k-01/16

Animal feed based on carbohydrates, protein, fats and opt. other additives additionally contains 1-250 ppm tetracycline, chlorotetracycline or oxytetracycline, and enough proteolytic enzyme (I) to provide an activity of 0.05-2.5 m Tu/g. (I) is esp. an acid protease active within the pH range 2.5-6.5.

Used for feeding poultry, pigs, calves etc. This combination of additives further improves the growth rate. 20.1.78 as 802396 Add to 2802398 (10pp1251).

HENK ★ D13 56404B/31 ★DT

Animal feed mixt. for poultry, pigs, etc. - contg. proteolytic
and lincomycin or oleandomycin

HENKEL KG AUF AKTIEN 20.01.78-DT-802398

B03 C03 (C02) (26.07.79) A23k-01/16

Animal feed based on carbohydrates, proteins, fat
other additives, additionally contains 1-250 ppm of
mycin(Ia) or oleandomycin (Ib) and sufficient prote
enzyme (II) to give an activity of 0.05-2.5mTU/g.
(II) is an acid protease active within the pH range

Used for fattening poultry, pigs and other anima
This combination of additive further improves feed
sation and/or wt. gain. 20.1.78 as 802398 (9pp125

NEST ★ D13 56550B/31 ★DT

Coffee extract for preparing non-spurting carbonated beve
acidified to cause deposition of flocculate which is separate

NESTLE SA 20.01.78-CH-000616

(26.07.79) A23f-01/08

Coffee extract prepn. takes place by setting the ext
pH 3-4.5 (3.8-4.2), awaiting flocculation and sepg.
flakes. The coffee extract pref. contains 10-40% s
pH adjustment is effected esp. by adding HCl, lacti
cirtric acid or a P acid, pref. with stirring. The
ate can be filtered-, centrifuged- or poured off. Th
phase can be treated with CO_2 gas or (bi)carbonates
-omatised, and is pref. admixed with 0.1% lecithin
ing up 2-10 ppm of a beverage contg. 7-12% solids)

The extract is used partic. for preparing coffee
carbonated beverages. Treatment prevents excess
foaming, e.g. spurting on opening containers. 16.
901522 (10pp200).

GENO D13 15843Y/09 =GB

Low calorie sweeteners based on amino acid sweeteners
asparagyl L-phenylalanine methyl ester, with a pol
component

GENERAL FOODS CORP 13.08.75-US-604289

*B05 E14 (01.08.79) *NL7608-963 +C07g-07*

A sweetening compsn. comprises ≥1 dipeptide swe
fixed in ≥1 low mol. wt. polypeptide. Sweetener a
peptide are present in wt. ratio 1:1-100.

Pref. the low mol. wt. polypeptide is an enzyma
hydrolysed protein other than protein derived from
such as fish protein, soy protein, wheat, corn, egg
milk protein or their mixts. Dipeptide sweetener is
aspartyl L-phenylalanine methyl ester, pref. in co
tion with a non-nutritive sweetener, such as sodium
rin or calcium cyclamate.

The compsns. have superior solubility and stabi
as well as enhanced nutritive properties. 20.7.76 a
030149 (5pp931)

BADI D13 09377Y/06 =GB 1

Canthaxanthine prepn. from echinenone or
dehydro)carotene - by oxidn. with chlorate or bromate at lo

BASF AG 05.08.75-DT-534805

*C03 E15 (01.08.79) *BE-844-902 C07c-175*

Canthaxanthin is mfd. by oxidising β-carotene, retr
dehydrocarotene or echinenone. The oxidn. is carr
with chloric or bromic acid (salt) in the presence o
Br_2 or I_2, or of an oxide or oxo-acid of Se or of a G
VIa or VIIa or of a salt of such acid, or of an oxide
Gp.-VIII element as catalyst. The reaction is in ine
ent or solvent at 0-50°C.

Pref. the reaction is carried out in the presence
I_2 or OsO_4 catalyst. The solvent is pref. chlorinate
drocarbon. The prod. is used as a food dye and as
ditive for animal feeds. 4.8.76 as 032447 (4pp964)

PROC D13 12730Y/08 =GB 1

Texturised particles from fat and gelling agent esp. ethylce
used with protein to form meat substitute

PROCTER & GAMBLE CO 18.08.75-US-605471

*A97 (D12) (01.08.79) *BE-845-272 A23j-03 +C11b-15*

Fat is texturised for use in meat analogue prods. b
ing 100 pts. of a triglyceride fat and 2-20 pts. of a
soluble gelling agent at a temp. > temp. of gelatinis

The mixt. is then cooled to a temp. < temp. of g ete, irregularly shaped particles of gelled fat. Pref. yceride fat is soybean oil, cottonseed oil, peanut oil, oil, lard or tallow. Gelling agent is ethyl cellulose ng viscosity of 50-200 centipoises.

he process is esp. used to produce meat analogue s. simulating comminuted natural meat, which incortes the particles. 17.8.76 as 034198 (4pp931)

- D13 08607A/05 =GB 1549-488

berry dressing machine - with buoyancy pressing floating fruit gainst inclined contra-rotating plucking rolls (NL 17.1.78)

WPIE KK 29.10.76-JA-129383 (15.07.76-JA-083494)

*P28 (01.08.79) *DT2729-366 A23n-15*

ts. for removing calyxes from fruit comprises a water with pairs of rotatable rolls at least partly submerged. rolls of each pair are driven in opposite directions so the lower surfaces converge, and the fruit is guided to w the rolls which contact and remove the calyxes.

ll pairs are pref. parallel to each other and inclined itudinally, and each roll has a hard core and resilient outer layer of circular cross-section. The core may f triangular, rectangular or polygonal cross-section. 5.77 as 025380 (21pp1358)

O D13 89916Y/50 #GB 1549-554

inuous double coating of cereal particles - with fat followed by e syrup

ENERAL FOODS CORP 14.11.75-US-632136 (11.11.77-GB-47130)

*+P42 (01.08.79) *US4061-790 +B05b-13*

ixture of particles of different size, shape and density, tic. a mixt. of cereals, nuts and fruit pieces, is coated ontacting with an oleaginous spray in an enclosed ew conveyor first zone, then with a sweet syrup in a ond zone where the particles are agglomerated.

n each zone the conveyor has a length to radius ratio 0:1 and has on the screw shaft cut and folded flights. rging rate is such that the material fills the conveyor ce and only a small part of the syrup moisture evapors. The cereal component is pref. an oven-toasted and fed rice flake. 11.11.77 as 047130 (7pp1358)

E D13 65584A/37 =GB 1549-573

ein-rich animal feed prodn. - by fermentation of dairy products e.g. whey with Kluyveromyces yeast strains in the sence of added nicotinic acid (NL 29.8.78)

BRITISH PETROLEUM LTD 25.02.77-GB-008070

*C03 (01.08.79) *DT2807-665 A23j-01/20 C12c-11/18*

rmentation process for the prodn. of a protein rich imal feedstuff from a protein rich dairy by-prod. contg. toso and lactic acid, is claimed. Process comprises tivating a lactose and lactic acid utilising strain of a ast of the genus Kluyveromyces in the presence of a gas ntg. free O_2 in a broth comprising a N source, the liq. iry by-prod. and added nicotinic acid (I).

Pref. the min. quantity of added (I) is such that the total antity of (I) present in the broth is sufficient to permit mplete utilisation by the yeast of the lactose and lactic id present. By-prods. are esp. obtd. from the mfr. of eese. 24.2.78 (4pp936)

RM- D13 71088A/40 =GB 1549-591

rmanium-contg. algae prodn. - by cultivating e.g. Chlorella or rulina in germanium-contg. culture medium

GERMAX & CO LTD 24.03.77-JA-031512

*B04 C03 E24 P13 (01.08.79) *DT2810-453 A01h-13 A61k-35/80*

odn. of an algae contg. Ge comprises cultivating an gae in a medium contg. Ge. Pref. the algae is micellular een algae or multicellular blue algae. Specifically the gae is chlorella or spirulina.

Pref. the culture medium contains the Ge as a waterluble cpd. specifically the oxide. Specifically the Ge connt of the medium is 10 ppm. to the satd. concn. The gae obtd. can be used in diets, feeds, natural dyes, and ysiologically active substances. The Ge when taken in the dy acts to prevent and cure diseases. 27.2.78 as 007628 pp924)

BADI D13 09376Y/06 =GB 1549-6

Echinenone prepn. by oxidn. of (retro-dehydro)carotene - w iodate at low temp.

BASF AG 05.08.75-DT-534807

*C03 E24 (01.08.79) *BE-844-901 C07c-175*

In the mfr. of echinenone by oxidising β-carotene or ret dehydro-carotene the oxidn. is effected with iodic acid o its salt in the presence of chlorine, bromine or iodine or of an oxide or oxo-acid of Se or a Gp. Va, VIa or VII element or of a salt of such an oxo acid or of an oxide of Gp. VIII element as catalyst and in the presence of an in diluent or solvent at 0-50°C.

The process gives echinenone in good yield and in hig state of purity. The prod. is esp. useful as an animal fe additive and as a food dye. Suitably the reaction soln. co tains 1-10 g./l. of the starting cpd., and 1-20 moles oxidising agent is used per mole starting cpd. 4.8.76 as 032446 (3pp945)

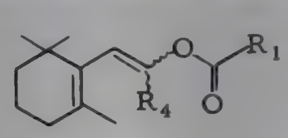
INFL D13 03846Y/02 =GB 1549-7

Flavouring or aroma compsns. for foodstuffs etc. - contg. 2,2, trimethyl 1-cyclohexen-1-vinyl alkanoates

INT FLAVORS & FRAGR INC 01.03.76-US-662820 (07.10.75-U 620355)

*B05 E15 +P15 (D21 D23) (01.08.79) *US4000-329 C07c-69/02*

Cis, trans and cis-trans mixed 2(2, 2, 6-trimethyl-1-cycl hexen-1-yl) ethen-1-ol esters (I) are new, where R_1 is 2-11C alkyl and R_4 is H or CH_3. The cpds. are used as flavour or aroma modifying agents for foodstuffs, tobacc perfume prods., medicinal compsns., etc.



The cpds. are prepd. (1) by rea ting β-ionone or its higher alkyl homologue with performic, perace ic, perpropionic or m-chloroperbenzoic acid, (2) catalytically reac ting β-cyclohomocitral enol acetate or its higher methyl homologue with an alkanoic acid anhydride or (3) catalyti cally reacting β-cyclohomocitral with an alkanoic acid an dride or acyl halide. 19.3.76 as 011088 Add to 1530465 (68pp945)

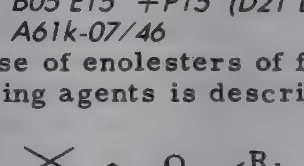
INFL D13 03846Y/02 =GB 1549-73

Flavouring or aroma compsns. for foodstuffs etc. - contg. 2,2,6 trimethyl 1-cyclohexen-1-vinyl alkanoates

INT FLAVORS & FRAGR INC 01.03.76-US-662820 (07.10.75-US 620355)

*B05 E15 +P15 (D21 D23) (01.08.79) *US4000-329 A23l-01/2 A61k-07/46*

Use of enolesters of formula (I) as taste or flavour modifying agents is described. In the formula R_1 is 1-11C alky and R_4 is H or CH_3. (I) is added to foodstuffs, soaps, detergents, cosmetics, tobacco, medicinal prods. etc.



(I)

Specifically, (I) is used in tobacc in combination with ethyl butyrate, ethyl valerate or maltol. Amt. of (I) used is pref. 250-1500 ppm. (0.025-0.15% based on the tobacco, or the amt of (I) used relative to flavouring material is 2500-15000 ppm. (0.25-1.5%). In perfume compsns. 0.01% or even less (e.g. 0.005%) (I) can impart a sweet, floral, fruity odour with β-ionone-like and tobacco-like nuances. 19.11.76 as 47811/78 Div.ex. 1549731 (50pp945)

HALL/ ★ D13 56662B/31 ★GB 2012-54

Feeding fish during salt water breeding - using powdere dehydrated feedstuff mixed with vegetable or animal binder an amt. of fresh water varying with temp.

HALLINGSTAD F 11.01.78-NO-000094

C03 P14 (01.08.79) A01k-61 A23k-01/18

An amt. of fresh water is added to the compsn. which is sufficient to supply the requirements of the fish and varie according to the breeding water temp.

Pref. the feedstuff compsn. is pelleted. The method avoids the requirement for large volumes of material which occurs with conventional wet feedstuffs. The fish does not, however, need to obtain all its fresh water requirements by desalinating the salt water, which is inefficient <10°C. and retards its growth and development. 10.1.79 as 000898 (2pp903)

HONS ★ D13 56731B/31 ★J5 4076-600
Refining stevioside and rebaudioside A in stevia leaf extract soln. - by treating soln. with aluminium chloride to form agglutinated ppte., removing ppte. and dialysing the extract
YAKULT HONSHA KK 25.11.77-JA-140710
B03 E13 (19.06.79) A23l-01/22

In sepg. and refining stevioside and rebaudioside A from an extract soln. of stevia leaves contg. stevioside and rebaudioside A, improvement is that (a) to the extract soln. of stevia leaves is added Al chloride in an amt. of 0.5% (V/V) w.r.t. the extract soln. to form agglutinated pptes. followed by removing the pptes. and (b) dialysing the extract to remove impurities.

Loss of stevioside is <3%. To form the agglutinated pptes. pref. pH is 6.5-8.5, and the time is 30-60 minutes. 25.11.77 as 140710 (3pp75).

BEST- ★ D13 56812B/31 ★J5 4076-839
Improving texture of processed foods - by adding material consisting of sodium casein, soybean protein, wheat protein and condensed phosphate
BEST SHOJI KK 25.11.77-JA-141350
C03 (19.06.79) A23l-01

Prepn. of processed foods such as marine pasty foods, processed livestock foods, daily dishes, etc. is characterised by combining 0.05-2% of a texture improving agent, composed of a synergist mixt. of casein sodium 5-40%, soybean protein 10-50%, wheat protein 5-40% and condensed phosphate 5-20%, with the food material.

Jelly strength, water-holding property, elasticity, bonding property, etc. of processed foods is improved. 25.11.77 as 141350 (2pp5).

SHIM- ★ D13 56813B/31 ★J5 4076-840
Heat-sterilising starchy foods sealed in vessel - by combining with ethanol, hydrogen peroxide and/or propylene glycol and/or (partially) replacing vessel air with e.g. nitrogen
SHIMADAYA HONTEN 29.11.77-JA-142996
(19.06.79) A23l-03/10

Process comprises heating the starchy foodstuff sealed in a heat-resistant vessel at <100°C at a pressure above atmospheric. Pref. ethanol, H_2O_2 and/or propyleneglycol is combined with the foodstuff and/or the air in the vessel is (partially) reduced by CO_2 and/or N_2.

Starchy foods are effectively heat-sterilised without deteriorating their quality. The vessels are heated under positive pressure and are not broken or deformed due to inner pressure. 29.11.77 as 142996 (3pp5).

HOSH- ★ D13 56815B/31 ★J5 4076-853
Fine flour-like rice powder prepn. - by immersing rice in aq. alkali, neutralising and crushing, alpha-lysing and crushing, or swelling and crushing
HOSHINO BUSSAN KK 28.11.77-JA-142369
(19.06.79) A21d-13 A23l-01/10

Method comprises (a) immersing rice material such as unpolished rice, polished rice, crushed rice, etc. in aq. soln. of alkali such as NaOH, NH_4OH, etc., (b) adding aq. acidic soln. to neutralise the rice material and (c) crushing, (c') α-lysing and crushing or (c'') swelling and crushing it.

The rice powder is very fine and difficult to be retrograded and its microbial count is very low. It gives a food of good soft texture and can be used with flour to prepare bread, noodle, macaroni, confectionery, etc. without deteriorating their taste and texture. 28.11.77 as 142369 (8pp5).

MITN ★ D13 56816B/31 ★J5 4076-857
Removing astringency of persimmons - by contacting with deoxidiser in sealed vessel
MITSUBISHI GAS CHEM IND 26.11.77-JA-141974
E37 (19.06.79) A23l-01/21

The method comprises contacting persimmons with deoxidiser in sealed vessels. Astringency of persimmons can be easily removed and made sweet without softening them.

As deoxidiser reducing substance e.g. hydrosulphite, sulphite, bisulphite, thiosulphate, oxalate, pyrogallol,

Zr powder, etc. can be used. Partic. the compsn. posed of Na hydrosulphite, $C(OH)_2$ hydroxide and act or compsn. composed of Fe powder and metal halid used favourably. 26.11.77 as 141974 (2pp5).

DAIK ★ D13 56818B/31 ★J5 4
Inhibiting pptn. of phycocyanin pigment from aq. soln. - u colouring foodstuffs, by adding gelatin to the soln.
DAIKIN INDUSTRIES KK 02.12.77-JA-144017
E23 (19.06.79) A23l-01/27

In colouring material with a soln. of phycocyanin pig ment in a water-contg. medium, gelatin in an amt. 6 wt.% relative to the phycocyanin pigment on dried weight base is added to the soln., whereby precipita of the phycocyanin pigment can be effectively inhibit The material to be coloured includes various foodstu such as icecream, candy, jelly, etc..

In an example, 1.2 g of phycocyanin is dissolved 2000 cc and to the soln. is added 12 cc of aq. soln. o gelatin, which is prepared by dissolving 2.5 g of gel in 500 cc of water at 50°C, followed by cooling at 20 To the mixt. is further added 88 cc of water, followe stirring to give homogeneous soln.. To the solution added 10% citric acid soln. to adjust pH to 3.5. 2.12 as 144017 (3pp22).

HAKU- ★ D13 56831B/31 ★J5 40
Powdered barley water prodn. - by mixing ground, roast barle water, decomposing the starch with alpha-amylase an glucoamylase, and drying using malt-dextrin or
HAKU-BAKUMAI KK 01.12.77-JA-144138
(D16) (19.06.79) A21d-13 A23f-03/02 A23g-01 A23g-03 A
A23l-01/22

The prodn. of powdered barley water (I) comprises (grinding of roast barley (II), (2) mixing this with wat (3) decomposing starch in (II) by treatment with α-amylase(III) and opt. glucoamylase(IV), (4) boiling th (5) concentrating the soln. and (6) drying the concent in a fluidised bed while adding malt-dextrin or sucro the soln. as drying aid.

(I) is soluble in cold and hot water and has excelle colour, flavour and taste. Pref. (II) is mixed with 5 its vol. of water; the amts. of (III) and (IV) are 800-4,000 units and 1,400-14,000 units per 100 g ground The treatment of (II) with (III) and (IV) is carried out 30-40°C for 1-5 hrs.; the boiling is for 5-10 mins., extract is concd. to 20-30% solids at 20-30°C under mm Hg.; and the drying temp. is 60-70°C. 1.12.77 a 144138 (4pp42).

MITU ★ D13 57083B/31 ★J5 407
Regenerating porous highly basic anionic exchange resin - us extracting stevioside from stevia rebaudiana, by treating wi sodium chloride soln.
MITSUBISHI CHEM IND KK 05.12.77-JA-145868
A91 B03 E13 (22.06.79) B01j-01/08

Method comprises contacting a porous type highly bas anion exchange resin of a net structure with a hot soln of NaCl to regenerate it. The resin is used in adsorpt of stevioside form its aq. soln.

The resin is obtd. by intrdducing quat. ammonium gp. such as, methyl ammonium methyl gp. $[-CH_2N^+(C$ $_3]$ or dimethyl hydroxy ethyl ammonium methyl gp. $[-CH_2N^+(CH_3)_2(CH_2CH_2OH)]$ into a porous type cross-linked polymer of styrene and divinyl benzene. The re tive surface area of the resin is $> 0.5 m^2/g$, and the porous vol. is $> 0.1 ml/g$.

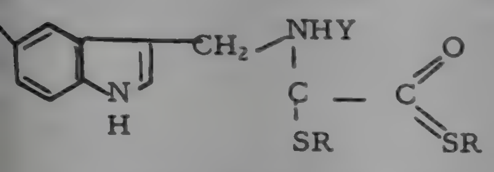
In an example, stevia is extracted with water to obt an extracted soln. of stevioside. The soln. is passed through the porous type highly basic resin to adsorb s ioside therefrom. The stevioside is dissolved out with an aq. solvent from the resin. The resin is regenerat with a soln. of 10% NaCl at 25°C. 5.12.77 as 145868 (4pp51).

MITU ★ D13 57085B/31 ★J5 4078
Regeneration of porous, highly basic anion exchange resin - us prodn. of stevioside, by contacting resin with solvent system c acetone
MITSUBISHI CHEM IND KK 05.12.77-JA-1458

eration porous highly basic anion exchange resin
n prodn. of stevioside of a sweet substance from
rebaudiana plant material is described.
contacting an aq. soln. of stevioside with an ad-
nt synthetic resin of a net type structure to adsorb
side, contacting the resulting resin with an organic
nt to dissolve out stevioside, and regenerating the
resin, the improvement comprises contacting the
resin with a solvent contg. acetone. The resin is
from a polymer of styrene and divinyl benzene. The
ve surface area of the resin is $> 10 m^2/g$, and the
s volume is > 0.1 ml/g.
an example, the adsorbent synthetic resin was
cted with an aq. soln. of 50 vol.% of acetone to eff-
egeneration. 5.12.77 as 145869 (5pp51).

D13 69761V/40 =J7 9018-251
substd. 5-hydroxy tryptophan derivs - repd. from thiol ester
-hydroxyphenylhydrazi e, used as inters for unsubstd. cpd
GAMI CHEM RES CENTRE 01.03.73-JA-023734
2 E13 (06.07.79) *DT2409-675 C07d-209/32

novel cpds. (I) have formula (where R is alkyl or aryl,



Y is a protective tp. for the amine function, Z is a protective gp. for the hydroxyl function).
(I) can easily be converted into unsub-
5- hydroxy tryptophan, which is a known antid-press-
and which could previously only be prepd. by compli-
d fermentation techniques. 1.3.73 as 023734
1-209/32 (6. 7. 79) SAGAMI CHEM RES CENTER
)(J49109374)

D13 15470T/10 =J7 9018-332
ction and sterilisation of food - by treatment with dimethyl
r
HEVRON RESEARCH CO 08.07.71-US-163532 (20.08.70-US-
65695)
17 P34 (D22) (06.07.79) *NL7111-535 A01n-09/24 A23l-03/34

d and liquid foods are extracted and/or sterilised by
acting them with dimethyl ether. Extraction pref.
ried out at room temp. with liquid dimethyl ether at
-5.3 kg/cm^2. The treatment extracts fats and water
n meat, vegetables, fungi, milk, fruit juice, wine,
, and sterilises them.
lavour and texture of the food are not affected and trea
prods. can be packed and stored without deterioration.
3. 71 as 133907 (clg. 20. 8. 70, 8. 7. 71-US-065695,
532) A01n-9/24 A231-3/34 (6. 7. 79) CHEVRON RESEA
I CO (5pp)(J51125720)

D13 31009X/17 =J7 9018-343
er for frozen fried food - of wheat flour, starch, emulsifier,
ch degradation inhibitor and water
JINOMOTO KK 11.06.74-JA-065587
(06.07.79) *J51029-268 A23l-01/17

wheat fluor is added 5-60 wt. % starch, and to 100 wt.
of the mixt. are added emulisifer and inhibitor for
radation of starch together with 100-150 wt. pts. of
er, with agitation so as to make density of batter 0.4-
. The batter has low viscosity, high processability,
oil-spreading and high durability. 11. 6. 74 as 065587
1-1/176 (6. 7. 79) AJINOMOTO KK (4pp)(J51029268)

NS D13 37021X/20 =J7 9018-346
le, clear whey beverage prodn. - by addn. of sweeteners and
tment with acidic protease
AKULT HONSHA KK 24.09.74-JA-108905
(06.07.79) *J51038-459 A23c-21

eteners, colourants, fruit juice, plant extracts etc.,
ch are necessary for drinks, are added to whey, and
r adjusting its pH to 2.0-5.0 with organic acid, acidic
tease is added. Whey is obtd. with effective use of all
components. Fine particles in the whey are removed
protease, and the whey drink obtd. is clear, free of
es, and stable under long periods. 24. 9. 74 as 108905
3-21/00 (6. 7. 79) YAKULT HONSHA KK (4pp)(J51038459)

ASAH D13 46933X/25 =J7 9018-34
Desalting of milk or whey - using electro-dialysis without causing
pH drop
ASAHI CHEMICAL IND KK 31.10.74-JA-124878
*J03 (06.07.79) *J51051-547 A23c-09/14 A23c-21*

Desalting method for milk or whey comprises using multicellular electrodialysing vessel equipped with anion and cation-exchange films, which is characterised by using anion-exchange film of transport number < 0.80. Generally anion-exchange film of transport number 0.50-0.80 can be used.

The method removes ash in milk or whey effectively without a pH drop, and further processes such as pasteurisation, concn. and drying can be practiced easily. The capacity can be increased.

Because pH-adjustment is unnecessary, the method can be made continuous easily and effectively. 31. 10. 74 as 124878 A23c-21/00, 9/14 (6. 7. 79) ASAHI CHEMICAL IND KK (MORG) (5pp)(J51051547)

ASAH D13 46934X/25 =J7 9018-348
Continuous desalting of milk or whey - by electro-dialysis obtaining desalted soln without pH drop
ASAHI CHEMICAL IND KK 31.10.74-JA-124879
*J03 P13 (06.07.79) *J51051-548 A23c-09/14 A23c-21*

Milk or whey is continuously desalted using stepwise plura multicellular electro-dialysing vessels equipped with anion-and cation -exchange films, characterised by applying anion-exchange film of decreasing transport number gradually with increased desalting ratio of milk or whey.

Generally anion-exchange film or transport number 0.50-0.98 can be applied. Desalted solution can be obtained almost without pH drop, and further processes such as pasteurisation, concn. and drying can be performed easily.

The loss of lactose during the desalting process is usually <1%, and the desalting attained is equal to that by the methods using anion-exchange films of higher transport number. 31. 10. 74 as 124879 A23c-21/00, 9/14 (6. 7. 79) ASAHI CHEMICAL IND KK (MORG) (9pp) (J51051548)

AGEN D13 62645X/33 =J7 9018-349
Decomposing lactose in milk and dairy products - by treating with gamma ray treated lactase
AGENCY OF IND SCI TECH 25.00.75-JA-000765
*(D16) (06.07.79) *J51076-459 A23c-07 C07g-07/02 +A23c-09/10 C12d-13/10*

Lactose present in milk and dairy products, is decomposed by applying γ-ray-treated lactase or a lactase contg. substance obtd. by irradiating γ-ray on a lactase or a lactase-contg. substance to inactivate protease and other unnecessary enzymes contained.

The γ-ray irradiation is conducted on lactase in the form of aq. soln., freeze-dried substance or powder. As lactase not only the refined enzyme but also crude enzyme, extract of fungus body, live fungus body, cultured product, etc. can be used. 25. 00. 75 as 000765 A23c-9/10, 7/00 C12d-13/10 C07g-7/02 (6. 7. 79) AGENCY OF IND SCI TECH (4pp)(J51076459)

HIGE- ★ D13 57335B/31 ★J7 9018-355
Instantaneously cooling boiled beans delivered from boiler - comprises subjecting agglomerated lumps of beans to a high velocity gas stream to separate them, and dropping them into cooling gas stream
HIGETA SHOYU KK (MITO MISK) 23.01.75-JA-009300
(06.07.79) A23l-01/20 C12g-03/02

Boiled beans are continuously delivered from a boiler, ad subjected to a high velocity gas stream to divide the agglomerated lumps into individual beans. They are then passed into a cooling gas stream, where the beans are cooled as they fell in the gas stream. 23. 1. 75 as 009300 C12g3/02, A231-1/20, A231-1/238 (6. 7. 79) HIGETA SHOYU KK, MITSUBISHI HEAVY IND KK MITSUBISHI KAKOKI KAISHA (12pp47) (J51086157)

RHON D13 14944X/09 =J7 9018-997
Defluorination of wet process phosphoric acid - by washing an org. solvent soln. with an aq. soln. of aluminium, iron, titanium or zirconium salt
RHONE-POULENC INDUSTRIES 13.08.74-FR-028029
*C04 E36 (C03) (11.07.79) *BE-832-369 C01b-25/18*

Phosphoric acid (I) contg. about 0.3 wt.% F-cpds. (as F) relative to P_2O_5, is defluorinated by (i) washing a soln. of (I) in an org. solvent (II). which is only sparingly miscible with water, with an aq. soln. of an Al, Fe, T or Zr cpd. so as to give an aq. soln. contg. the F-cpds. and org. solvent soln. of (I). (ii) sepg (I) from (II) by regeneration with water to give as final prod. an aq. soln. of (I) contg. <10 ppm F or P_2O_5.

Used for treating crude wet process acid to give a prod. useful for feeding purposes and for other applications where F is an unacceptable impurity e.g prodn. of surface-treating compsn. All the stages are carried out at normal temp. 12.8.75 as 098006 (clg. 13.8.74-FR-028029) C01b-25/18 (11.7.79) RHONE POULENC INDS (7pp) (J51045695)

PROC D13 49491R/28 =NL-160-704
Flaky instant coffee
PROCTER & GAMBLE CO (PROG) 16.05.67-US-638858
*(16.07.79) *FR1587-602 A23f-01/12*

Soluable coffee is prepd. by passing, between the rollers of a roller machine, dry soluable coffee particles or a mixt of these particles and 0.01-20 wt.% aromatic coffee oil. The particles are flattened to flakes of thickness 0.05-0.25 mm and of density 1.0-1.5 g/cm^3.

The rollers pref. are of kia 75-750 mm. and the speed of the rollers is pref 3-75 m/min. 15.5.68 as 006830 (6pp549).

DEGS D13 06899H/00 =NL-160-705
Feedstuff concentrates contng urea or ammonium cpds
DEUTSCHE GOLD & SILBER 01.12.67-DT-592628
*C03 (16.07.79) *BE-724-629 A23k-01/22*

Feedstuffs (I) are prepd. by mixing customary feedstuff components with urea contg. 0.01-5 wt.% of the total mix. of a mix of almost equal parts of synthetic, hydrophilic SiO_2 in pure form or as mixed oxide with Al_2O_3; and a synthetic hydrophobic SiO_2 in pure form or as a mixed oxide with Al_2O_3. The primary particle size of the SiO_2 is <500µ

(I) have better odour and taste and better flow characteristics than known products. The urea content can be high and the consumption of (I) by cattle is improved. The pref. SiO_2 used is obtd pyrogenically or in wet process and may be in the form of a mixed oxide with Al_2O_3. The pref B.E.T. surface is 200-250 m^2/g with a pref. particle size of 3-40 micron.

In an example 1.0% of a mixture consisting of 0.5% pyrogenic pure SiO_2 and 0.5 wt% hydrophobic SiO_2 is added to feedstuff urea with a clear smell of ammonia. After intensive mixing the ammonia smell disappears and does not return after 10 weeks storage. 27.11.68 as 016961(3pp279)

UNIL D13 31445U/22 =NL-160-706
Provolone cheese flavoured foodstuff - contng alkanoic acids
UNILEVER NV 24.03.72-LU-065039
*E17 (16.07.79) *BE-789-800 A23l-01/22*

Materials which confer an anomia like that of Prouoloue cheese are prepd. using a mixture of (1) 75-99 wt. parts of a mixture of alkane acid having 2-10C and contg. 35-70 wt.% butyric acid, 15-35 wt.% hexanoic acid and 15-30 wt % octanoic or decanoic acid, the remainder being other 2-10C alkanic acids; (2) 0.01-0.2 pts wt. alkyl-alkanoates contg. 1-4C in the alkyl and 4-8C in the alkanoyl and (3) 0.05-0.5 pts. wt. alkylamines or dialkylamines contg. 2-8C.

The materials, in the form of the mixture, are incorporated in foodstuffs. 5.10.72 as 013536(5pp549).

POLA D13 65183Z/00 =NL-160-708
Flavouring method
POLAK'S FRUTAL WORKS INC (POLA-) 11.09.67-US-666980
*B05 E19 (16.07.79) *BE-720-629 A23l-01/23 +C07c-149/14 C07c-153/09*

A roasted or burnt aroma is given to foodstuffs and drinks. or a similar aroma in foodstuffs and drinks is fort adding one or more compounds (I): methylthiol-n-b methylthiol-n-valerianate, methylthiol-isovaleriar methylthiolante-isovalerianate, methylthiolbenzoat -thioacetaldehyde, γ-methylthiopropionaldehyde, γ- thio-n-valeraldehyde, γ-methylthio-isovaleraldehy methyldithio-isobutyraldehyde, γ-methydiithio-isov -hyde, β-methyldithio-propionaldehyde, γ-methyldit butyronitrile, ethylγ-methylthio-n-valerianate, eth thyldithiopropionate and/or ethyl γ-isobutyrate(son which are new).

(I) fortify the effects of the Maillard reaction be amino acids and sugars. They may be used in drin coffee or cocoa-aroma, in foodstuffs contg. roaste seeds, beans, meat etc. such as popcorn, cornflak beans, sugar goods with roasted nuts, bread with b seeds etc.

Thiol esters are prepared from the corresp. aci ride or acidanhydride and alkylmercaptan or e.g. f mercaptoisobutyrate and CH_2SCl. 10.9.68 as 0128

INLE- ★ D13 B/31 ★RU
Two-step vegetable material hydrolysate neutralisation - f calcium carbonate powder and then with ammonia or alkali
IND LEMNULUI 06.08.75-RU-083093
(30.08.78) A23k-01/12

PROT- ★ D13 B/31 ★RU
Proteinaceous fodder flour and technical fat prepn. - by pork rind and scraps, removing surplus fat and degreasing
PROTAN INTR IND 13.09.73-RU-076066
C03 (03.08.78) A23k-01/10

SOVI= D13 61742W/37 =SU
Protein-contg. products prepn. - from collagen contg. mat heating, liming and neutralising to retain the fibrous structu
SOVIET TRADE INST 14.07.72-SU-810695
*(30.01.79) *SU-439-267 A23j-01/10*

Proteinaceous material is produced from a collage material, such as wastes from the meat industry, prodn., etc., by a thermal treatment, liming and n isation.

This method is improved by carrying out the lim 10-12 hr. to 3 days, at 20-22°C. and, after the neu sation, dispersing the product. By this method, th cess is accelerated, and the fibril structure of the -aceous substances is preserved.
Urudzhev, R.S. Bul. 4/30.1.79. 14.7.72 as 81069

CBLA= ★ D13 57638B/31 ★SU -
Milk substitute for young farm animals - in which part skimmed milk is replaced with dried maize germs to reduce
C BLACK EARTH LIVES 18.04.77-SU-474636
C03 (31.08.78) A23c-11 A23k-01/18

Milk substitute for young farm animals, based on d skimmed milk, fat and a vitamin premix is rendere expensive by replacing a part of the dried skimmed with maize germs stabilised by treatment with hot a adding a phosphate concentrate and glucose. The c contains (in wt.%) dried skimmed milk 43-53, fat (e lard) 10-20, vitamin premix (A and D_2) 0.5-1.5, st maize germs (2-3% moisture) 20-40, phosphate con rate 2-4, and glucose 2-4. For use, the compsn. i solved in warm water and homogenised.
Alimov, T.K., Antipov, V.I., Kharitonov, L.V. B 25.10.78. 18.4.77 as 474636 (3pp70)

ALTA= ★ D13 57639B/31 ★SU
Cheese pressing process - uses centrifugal force, with preli moulding of cheese also under centrifugal force
ALTAI BUTTER CHEESE (BUTT=) 28.01.77-SU-447707
(31.08.78) A23c-19/02

Method of pressing cheese, involves first shaping th cheese curds and subsequently completing the press centrifuging. The process is intensified and the che quality is improved by carrying out the shaping in th of influence of the centrifugal force, with the centri pressing done with a constantly increasing loading f 0.015 to 1.4 kgs/cm^2 over a period of 2-6 hours. T shaped cheeses are made with perforated inserts

arger axis of symmetry of the shapes is parallel to
otational axis, and the shorter axis coincides with the
tion of the centrifugal force.
nov, S. F., Krasheninin, P. V., Matveeva, E.K. et al
39/25.10.78. 28.1.77 as 447707 (2pp29)

★ D13 57640B/31 ★SU -628-875
ing sticky food products, e.g. potato puree - using two
rated plates at an angle, and a segment shaped element to
the material through
RIONOV B A 25.05.77-SU-490908
(31.08.78) A23l-01/21
ce for pelletising high-moisture content, adhering
ucts, e.g. potato puree, comprises pressing and per-
ted elements, and a loading hopper. Construction is
olified and the sticking-together of the pellets is reduc
by making the perforated elements as two plates,
lly mounted at an angle to one another, having their
ends uppermost. The pressing element is segment
ed and is fastened by a hinge so that it can rotate.
veen the free ends of the plates and the loading hopper
ective baffle plates are fastened. They are arc shaped
circumscribe the pressing element.
onov, B.A. Bul. 39/25.10.78. 25.5.77 as 490908
29)

S= ★ D13 57671B/31 ★SU -628-956
rifugal extractor of vegetable and pit fruit juice - contains outlet
clarified juice and additional adjustable tube for discharge of

ONSERVE FRUIT DRY (KDPO=) 20.12.76-SU-432643
41 (07.09.78) B04b-07/16 B04b-11/02
arate discharge of clarified juice and of pulp-contg.
e from the centrifugal extractor for vegetables and pit
its described in Parent Certificate No. 574238 is ensur-
In the discharge chamber of the rotor contg. the out-
tube for clarified juice, an additional discharge tube is
unted with adjustable radial position of its inlet opening
discharge of pulp-contg. juice. The control of the
nsparency of the juice, consisting of photocell and ref-
ence setter, is connected through comparator and ampli-
r to the driving mechanism of the additional discharge
e.
lyakova M.M., Ilin M.I., Goloborodko Yu.I., Bul. 39/
10.78 20.12.76 as 432643 Add to 574238 (3pp135)

A/ ★ D13 57712B/31 ★SU -629-063
ter for edible products used in conserves - has loading hopper,
knives and pressing attachment which moves in between
ves
KULAKOV A F 25.05.77-SU-490901
P62 (31.08.78) A23n-15 B26d-04/24
achine for cutting edible prods., e.g. during the prodn.
conserves, comprises a frame, drive, cutting units,
ade of an assembly of disc knives mounted on a shaft with
ps between, pressing attachment and conveyor to take
ay the lumps of the prod. The quality of the cutting is
proved by making the pressing attachment in the form
combs - the teeth of which are bent according to the
dius of the knives and mounted so that the knives can
ss between them. The shaft of the cutting unit is conn-
ted to the shaft of the pressing attachment.
lakov A.F., Laletin V.V., Devchenko O.V., Bul. 39/
.10.78 25.5.77 as 490901 (2pp29)

AO- D13 84402A/47 =US 4161-139
imal fodder preparation before pelletising - in conditioner and
rilising drums with conveyors and steam heating (NL 14.11.78)
SIMON-HEESEN BV 11.05.77-NL-005234
*+P13 (17.07.79) *DT2819-491 +A01j-11/04 A01j-13*
e appts. is for the treatment of animal feedstuff prior to
lletising and comprises a conditioning vessel and ≮1 st-
ilisation vessel, each of which is in the form of a cylin-
ical drum. The material to be treated is fed through the
nditioning vessel where steam or other additive can be
plied.
The material is passed from the conditioning vessel to
e sterilisation vessel or vessels. Material is discharged
om the sterilisation vessel or vessels after a required
esidence time. The conditioning vessel and sterilisation
vessel or vessels are arranged in spaced apart relations
and connected by walls to form an integral structure havi
a single chamber between the vessels through which a he
ing medium may be passed. 1.5.78 as 901824 (4pp947)

TOXO D13 96831X/52 =US 4161-4
Chemically peeling fruits or vegetables - using aq. alkali cont
polyoxysorbitan fatty ester and another fatty ester, e.g. of glycerol
TOYO SEIKAN KAISHA (KAOS TOXO) 30.04.75-JA-052192
*A97 E19 (17.07.79) *J51128-453 A23l-01/21 +B01f-17*
An aq. alkali soln. is prepd. for peeling fruits or veget-
ables, contg. 0.1-1.5wt.% of alkali, 0.005-1.0 wt.% of
mixt. of polyoxyethylene (3-60) sorbitan (8-18C) fatty
acid ester of HLB > 9, and glycerin (8-18C) fatty acid
ester of HLB ⩽ 9; the balance being water.

Mixt. contains 1-5 wt. pts. of first component and 1-
wt. pts. of second component. Pref. 0.2-0.5 wt.% of
sodium hydroxide is used as the alkali. Mixt. may also
contain instead of the glycerin fatty acid, a sorbitan (8-1
C) fatty acid ester, or propylene glycol (8-18C) fatty aci
ester, each to 1-5 wt. pts. each of HLB ⩽ 9.

Process had reduced treatment time. No degradatio
in quality, reduction of operation efficiency or yield decr
ease is encountered. 11.9.78 as 941209 Div. ex. 41306
(+21.4.76, 8.8.77-US-679018, 822705) (7pp931)

GENM ★ D13 57929B/31 ★US 4161-51
Plaque inhibiting and removing chewing gum - contg. gum bas
alkyl sulphate, and stearoyl-2 lactylate and/or di-(2-ethylhexyl
sulpho-succinate
GENERAL MILLS INC 28.11.77-US-855511
B05 (17.07.79) A61k-09/68
Chewing gum contains (a) 10-95% by wt. of gum base (I);
and (b) 0.001-25% by wt. of a mixt. of an alkyl sulphate
salt (II) with (i) a stearoyl-2-lactylate salt (III) and/or (ii
a di(2-ethylhexyl)-sulphosuccinate salt (IV). Wt. ratio
(II):(III) or (IV) = 1000:1:1-1000.

The chewing gum is highly effective in inhibiting or r
ducing dental plaque.

Amt. of (II) is 0.001-15%, pref. 0.005-5, esp. 0.01-
by wt. of compsn. In (II), alkyl is 10-18C, pref. even n
Esp. pref. (II) is lauryl sulphate. Wt. ratio (II):(IV) is
pref. 250-1:1-250, esp. 20-1-1-20. Wt. ratio (II):(III) i
pref. 250-1:1-250 esp. 20-1:1-20.

Amt. of (IV) is 0.001-15%, pref. 0.005-5%, esp. 0.0
3%. The combined amt. (II) and (IV) is 0.001-25%, pref.
0.001-10% esp. 0.001-3%.

Amt. of (III) is 0.001-15%, pref. 0.05-5%, esp. 0.01-
3%. The combined amt. (II) and (III) is 0.001-10%, pref.
0.001-3%. Wt. ratio (III)-(IV)=50-1:1-50.

Chewing gums pref. contain 15-70% (I); and also 5-80
pref. 10-70% polyol sugar (esp. xylitol); 1-30% pref. 2-
20% of buffer (esp. $NaHCO_3$); 1-30% pref. 1.5-20% abras
(esp. di-Ca diphosphate. $2H_2O$); 0.01-10% pref. 0.2-5% gl
cerol; 2-99% pref. 5-70%, esp. 10-50% H_2O and/or mono
hydric alcohol (wt. ratio pref. 20-1:1-20, esp. 10-1:1-10

Similar compsns. (mouthwashes, toothpastes, solid
foods, etc.) are also disclosed contg. (II)-(IV) but chew-
ing gums are pref.

Chewing gum was prepd. from (all%) (I) (25), xylitol
(10), $NaHCO_3$ (2), sorbitol (35), 70% sorbitol in H_2O (15),
di-Ca phosphate. $2H_2O$ (5), mannitol (5), glycerol (0.5),
Na lauryl sulphate (0.8), Na-(IV) (0.8), and flavour and
colouring (qs). 28.11.77 as 855511 (7pp478)

DOWC ★ D13 57938B/31 ★US 4161-53
Improving growth response in ruminant or milk yield in dairy cattle
by oral admin. to animal of effective amt. of malic acid as tablet
powder, soln., capsule or suspension
DOW CHEMICAL CO 05.06.78-US-912694 (11.04.77-US-786315)
B05 C03 (17.07.79) A61k-31/19
The growth response in ruminants is improved by the ora
admin. of an effective amt. of malic acid. (B) Milk prod
in diary cattle is improved by the oral admin. of an effec
ive amt. of malic acid. Pref. in both cases the effective
amt. is 25-750, esp. 50-500 mg/kg daily.

The process provides improved weight gain with cattl
and sheep, or improved milk yield in dairy cattle, or im-
proved feed efficiency in both cases. Malic acid can be
directly administered in the form of tablets, capsules,

powders, solns., suspensions or in admixt. with one or more components of the ruminant's diet. 5.6.78 as 912694 (4pp914)

FOOD- ★ D13 57941B/31 ★US 4161-543
Enhancing the taste threshold of feed for herbivorous animals - by addition of sodium di:acetate to their feed
FOOD TECHN PROD 08.12.77-US-858660 (30.06.71-US-158616)
C01 (17.07.79) A23k-01

In the feeding of beef cattle, dairy cattle, sheep, goats, horses, hogs or fowl, the improvement comprises the presence in the feed of an amt. of sodium diacetate sufficient to attract the animal to the feed and to enhance the taste threshold. Pref. the amt. present is 0.025-0.35 wt.% of the feed.

The process is esp. useful in the fattening of herbiverous animals which are to be slaughtered for meat purposes, and for improving the general health of the animals, e.g. to improve the milk yields of dairy cattle. The sodium diacetate retains its attractant properties over a long period of time, and feeds contg. it are storage-stable. 8.12.77 as 858660 C.i.p. 3925559 (+25.10.72; 28.6.74; 10.11.75-US-300736, 484080, 630697) (5pp914)

KAUL/ D13 67257A/38 =US 4161-544
Powdery chewing gum compsn. - contg. sugar, polysaccharide, natural gum and swelling agent, is compressible to tablets, figures or sticks
KAUL D (KAUL-) 11.03.77-DT-710579
*(17.07.79) *DT2710-579 A23g-03/30*

A pourable material is prepd. for chewing gum by adding dry sugar materials, polysaccharides, natural gums and swelling agents to a dry base of chewing gum heated to 60-120°C, then mixing and crushing the mass at this temp. for 1-15 mins.

The mixt. is then cooled to 30 to -5°C, and the mixing continued for 1-15 mins. to produce a pourable powder for making chewing gum, which remains pourable at normal temp. on storage without forming agglomerates.

Pourable powder is produced using simple means and at low expense. Materials are produced which can be easily compressed into various shapes, such as tablet or figures. 9.3.78 as 884878 (2pp931)

GREE/ ★ D13 57942B/31 ★US 4161-545
Honey coated roasted nut prod. - prepd. by coating nuts with honey soln., sugar and starch and roasting
GREEN W M 16.05.78-US-906663
(17.07.79) A23l-01/36

Raw nuts are coated with a mixt. of 50-80 wt.% honey and 20-50 wt.% water, then with a dry mixt. of particle size 0.002-0.02 ins. contg. 8-16 wt.% starch and 84-92 wt.% of sugar. The nuts are then roasted.

The honey coating is more adhesive than coatings made using other materials e.g. dextrose, corn syrup, dextrins, etc. and the prod. has a better colour and flavour. 16.5.78 as 906663 (3pp955)

WARR/ ★ D13 57944B/31 ★US 4161-548
Prodn. of hard boiled eggs with elongated yolks - by mixing yolk and white of partially cooked egg, and completing cooking
WARREN W 26.01.78-US-872372
(17.07.79) A23l-01/32

Hard boiled eggs having an elongated or ovoid yolk a
white mixt. extending the full length of the cooked e
prepd. by partially cooking the egg to form a thin la
hardened white next to the shell, and mixing the unc
white and yolk inside the egg, then completing the c
process. The mixing is pref. carried out by inserti
thin bent needle, the main part of which is coaxial w
long axis of the egg, and the end of which is bent at
angle to this axis, and rotating it.

When the egg is sliced, portions of yellow and wh
present in all the slices. Darkening of the yolk is a
The yolk and white do not separate after slicing. 26.
as 872372 (4pp955)

GALL- ★ D13 57945B/31 ★US 41
Improving flavour of damaged green coffee - by storage
controlled temp. and humidity which are changed in stages
GALLON & CO 19.07.74-JA-083364 (07.12.73-JA-137508)
(17.07.79) A23f-01/02

Dried green coffee beans, which have been damaged
verse storage conditions are treated to improve the
by (a) tempering the beans at atmos. pressure at a f
temp. of 0-26°C and a first humidity of 45-70% for
reducing the water content; and (b) heating the beans
second temp. above the first and in the range 10-30°
humidity above the first in the range 55-90%, at atm
eric pressure and with sufficient circulation of air to
undesirable constituents evolved.

The beans may then be tempered under atmos. pr
at a temp. equal to the 2nd temp., and a 3rd humidit
er than the second, and then heated to a higher temp.
4th higher humidity. 29.12.77 as 865445 (+4.12.74,
14.9.76-US-529547, 723091) (25pp955)

PROC D13 26453B/14 =US 41
Meat aroma precursor compsn. - contg. sources of hyd
sulphide and di:methyl sulphide with edible protein
PROCTER & GAMBLE CO 21.09.77-US-835126
*E19 (17.07.79) *EP---1-309 A23l-01/23*

A meat-like aroma precursor compsn. is prepd. con
hydrogen sulphide precursor, a dimethyl sulphide pr
sor, and an edible proteinaceous material. Compone
are present in such amts. effective to generate a me
like aroma upon heating the compsn. in an aq. enviro
ent.

Pref. the hydrogen sulphide precursor is cystein
its edible salts, glutathione or its edible salts, edibl
tein-contg. sulphhydryl or cystine. Dimethyl sulphid
precursor is an edible salt or deriv. of S-methyl met
ionine, S-methyl 4-methyl thiobutyric acid, S-methyl
methyl cysteine, S-methy 3-methyl thiopropionic aci
S-methyl methyl thioacetic acid.

Esp. used to generate an aroma reminiscent of c
beef when heated to cooked in the presence of water.
21.9.77 as 835126 (4pp931)

See Also

D16 SU 619152 D23 DS 2065324 D23 NL 16070
D23 US 4161482

D14: FOODSTUFF MACHINERY

KUPP- ★ D14 56473B/31 ★DT 2802-921
Food preparation e.g. reheating system - with selector switch for hot air or steam circulation or for heating elements
KUPPERSBUSCH AG 24.01.78-DT-802921
*(26.07.79) A23l-01/**

In a system for the re-heating, gentle cooking or unfreezing of deep-frozen food, a choice is available between various procedures over a preselected controlled time period. The cooking space can be charged with hot air in circulation, or with steam, or with a mixture of both

The cooking procedure can thus be exactly adapted
the condition of the food so that the system has a unive
application. 24.1.78 as 802921 (9pp39).

PARW- ★ D14 56564B/31 ★DT 290
Food spray coating appliance - with easily cleaned two-
nozzle banks
PAR-WAY MFG CO 20.01.78-US-870937
P42 (26.07.79) A21c-09/04 A23g-03/20 B05b-07/06 B05b-1

A spray appliance to apply coatings to food consists o

ay nozzles are fitted to double cavity walls, the inner
for the supply of air and the outer cavity for the su-
an ingredient.
s appliance is readily accessible for cleaning. Even
s ingredients can besprayed at high throughput rates.
achine produces thin and uniform coating layers.
79 as 902092 (20pp39).

★ D14 56711B/31 ★GB 2012-948
rement of particle size distribution of granular substances -
past illuminated screen in front of TV camera to produce
rojected images
AITOMO KINZOKU KO 27.02.77-JA-022452 (29.12.77-JA-
082)
M24 R16 (01.08.79) G01n-15/02
cle size distribution of granular substances is measur
allowing the material to fall past an illuminated
n and statically telerecording the state of the material
g the fall using a T.V. camera.
e projected area of each particle, its dia. and wt. and
tal no. of particles are computed for calculating the
atio as basic data for obtaining the distribution.
ed in measurement of particle size distribution of
us raw materials in Fe making or in the making of
ls, esp. during transportation. An average configur-
coefft. of correction is used to correct the determi-
of the wt. ratio of particles. Information on the
ibution can be obtd. during transportation, continu-
and without taking any samples. The method of deter-
tion can be used on various granular substances witho
mitation to their size or shape. The appts. is com-
and can be fitted in an existing transportation line.
2.78 as 050215 (10pp1044)

D14 61260V/34 =NL-160-712
for cooking defrosting food - in which air is circulated at high
in a cyclonic turbulent pattern
DDE CONSUMER DURA (LCAC-) 23.05.73-US-363293
*P28 Q74 (16.07.79) *US3828-760 A47j-39 F24c-15/32*
is prepd or thawed out in an oven consisting of an en-
re with an access door, an electrical heating element
n air circulating fan. The heating element is in the
of a flat plate in the roof and the fan is mounted in a
ss in the roof, the recess having walls diverging down
ds at an angle of, pref 20° to the vertical. The air
rs the fan from the oven space via a grid and is pushed
ally outwards by the fan and then diverted downwards
outwards by the walls of the recess.
his arrangement ensures that there is adequate circu-
n and turbulence of the air within the oven so that an
temp is obtd. throughout. 20.3.74 as 003711(8pp1370)

/ ★ D14 B/31 ★OE 7509-170
g chamber
ARALL J 00.00.75-OE-009170
(15.07.79) A23b-04/04

★ D14 B/31 ★PT --68-459
and vegetable crusher - has toothed wheel meshing with
ved bars fixed to interior wall of cylinder
TI-SISTEMAS TECNIC 21.08.78-PT-068459
*62 (17.07.79) B26d-00/**

D= ★ D14 57586B/31 ★SU -628-371
y valve for controlling pressure or vacuum - has body, saddle,
ort element and counterweight designed to give gap for gas to

OOD IND CORR COLL 25.05.77-SU-490907
66 (23.08.78) A23l-03 F16k-17/19
ty valve, for use where it is required to maintain a
ssure or vacuum in gaseous communications under
ptic conditions, comprises a body, saddle and support
nent linking them together, plus a counterweight. The
ssure or vacuum maintenance is guaranteed by provid-
the body with a removable flange fittdd with a bacterial
er. The counterweight is positioned inside the body,
the saddle and counterweight have channels for passing
or steam through.
harine, K.P. Bul. 38/15.10.78. 25.5.77 as 490907
29)

SIDA= ★ D14 57595B/31 ★SU -628-391

Spray dryer gas distributor - whose cold air manifold outlet has horizontal washer forming annular gap

SIBE DAIRY IND RES 13.05.74-SU-021756

J08 Q76 (04.09.78) F26b-03/12 F26b-21

The gas distributor can be used in dryers employed in milk, food and chemical industries. The distributor contains hot and cold air manifolds, provided with smoothing grids and blade apparatus and concentric truncated cones. The truncated cones are placed one above the other and form channels for hot air passage. The truncated cones large bases are situated in dryer roof section. To reduce the drying material adhesion to the cone surface and to increase the drying quality, the cold air manifold outlet, on the cones lower bases level, is provided with a horizontal washer. The washer forms an annular gap with the outer cone.

Bukin, F.F., Guss, V.A., Mamontov, V.P. et al.
Bul. 38/15.10.78. 13.5.74 as 021756 (2pp110)

VEND= ★ D14 57633B/31 ★SU -628-852

Viscous food mass delivery device - has coaxial hollow shafts driven by gears and at different speeds with blades to move the mass through

VENDING EQUIP RES (MOFO=) 10.05.77-SU-486583

P13 Q56 (29.11.78) A01j-17 F04c-17

Device for delivering a viscous food mass, e.g. plum-seed oil, soap mass, sugar-beet chips, dough, etc., comprises a body with a working chamber, inside which two hollow shafts with blades, which can be rotated, are positioned coaxially.

Productivity is increased by giving the two hollow shafts the same drive, with the exit ends of the shafts extending beyond the limits of the working chamber. On the end of the outer shaft is mounted the sun-wheel of the mutual drive with spindles on which gear wheels are fastened. On the inner shaft and the body are placed the gears of the mutual drive, situated so that they mutually engage.

Laptev, G.A., Tarasov, P.S., Stepanov, A.N. et al.
Bul. 39/25.10.78. 10.5.77 as 486583 (2pp29)

AVET/ ★ D14 57637B/31 ★SU -628-872

Heat-treatment of sausages during smoking - in chamber fitted with double chain conveyor made from linked rings into which sausages are loaded

AVETIKOV G M 29.08.74-SU-059377

(01.09.78) A23b-04/04

Device for heat-treatment of sausage-like articles includes a chamber with a double-chain conveyor, and loading and unloading openings. Construction is improved by making each chain from a series of rings having a diameter greater than the diameter of the sausages, etc., connected together by smaller ring-like fasteners. The rings are freed from the sausages by installing curved guides near to the unloading opening. The smoking mixture is fed to the heat-treating chamber through the window provided.

Avetikov, G.M., Bakunts, G.V., Vartanyan, G.G. et al.
Bul. 39/25.10.78. 29.8.74 as 059377 (4pp29)

UORC= ★ D14 57643B/31 ★SU -628-878

Continuous and uniform conveyance of fruit - using two conveyors, one at top and other at bottom of hopper, for smooth lowering and collection

UKR ORCHARD RES INS 16.05.77-SU-489429

Q35 (21.09.78) A23n-15 B65g-65/46

Device for continuous and uniform transportation of fruit and vegetables, according to Parent Cert. No. 525449, comprised a frame on which a hopper with an opening was fastened, plus a proportionator and a take-away conveyor serving as the bottom of the hopper, and formed by spring-loaded rod-like elements distributed across the frame and movable in the vertical direction. These elements made contact with longitudinal synchronously rotating screws, with the rod-like elements placed underneath the screws. Now detents are installed under the rods to limit their change of positions.

Demidko, M.E., Yakubovskii, E.Ya., Fryshev, S.G. et al. Bul. 39/25.10.78. 16.5.77 as 489420 Add to 525449 (2pp29)

D15: WATER TREATMENT

SUMO ★ D15 56291B/31 ★BE-873-732
Analysis of nitrogen derived from nitrites and nitrates - present in small amts. in aq. systems e.g. sea, river and waste water etc.
SUMITOMO CHEMICAL KK 10.11.78-JA-139070 (27.01.78-JA-008620)
E36 J04 R16 (26.07.79) G01n

A process for determining nitrogen derived from nitrites contained in small amts. in aq. systems such as sea water river water, and various waste waters, involves reacting the aq. soln. contg. nitrites with an aq. soln. contg. 0.1-15 pref. 1-10 wt.% sulphamic acid in a reactor through which a current of gas passes. The gaseous nitrogen given off is carried along by the current of gas and passes into a detector where the gaseous nitrogen is measured.

Nitrates present in the aq. soln. to be analyses can be reduced first to nitrites pref. by adding an ammonium cpd. and zinc powder to the aq. soln. 26.1.79 as 873732 (31pp)

SILV/ ★ D15 B/31 ★BR 7708-755
Water treatment system using nonwoven cloths
SILVA L M 28.12.77-BR-008755
(17.07.79) B01d-39/08

SEAC- D15 81644T/52 =DS 2226-567
Hydromechanical liquid/liquid skimmer - esp for oil slick decontamination
SEACLEAN SA (SEA-) 04.06.71-CH-008195
*H03 Q42 +Q24 (26.07.79) *DT2226-567 E02b-15/04*

Stationary or floating device to remove oil slicks and similar contaminants from the surface of open waters consists of a vessel mounted conveyor. This is either an endless chain with suspended plates or a screw conveyor. The speed of the chain drops from a high speed at the entrance of the plates to a slow speed when they leave to be returned above water level.

The plate spacing becomes smaller and the oil slick thickness great enough for the oil to be removed by pumping. The same effect is achieved by a gradually reduced pitch of the screw conveyor. This allows continuous removal of a floating oil slick, independent of heavy seas or ship movements. 29.5.72 as 226567(11p39).

LABS- D15 34544Y/20 =DS 2701-479
Falling film evapn. and spray drying in single chamber - for liq. suspension of solids partic. sewage sludge
SOC LAB 15.01.76-FR-001498
*+Q73 Q76 (26.07.79) *BE-850-361 C02c-03 F26b-03/16*

A device for the two-stage drying of liquids with a solid content, e.g. sewage or coal washing slurry, performs both stages in one vertical cylinder. In the first stage, an annular nozzle array in the top sprays the liquid against the walls on which it trickles down to be collected as a concentrate. A central nozzle array sprays the concentrate through the middle to a funnel at the bottom. The hot air used for drying is introduced through a pipe in the centre of the funnel.

This is a compact device in which both stages assist each other and which is easy to control. 12.1.77 as 701479 (5pp39).

MORI/ D15 54356Y/31 =DS 2702-043
Filler for waste water treatment - contg. crimped filament network, e.g. of polypropylene, bonded by melt adhesion
MORIMURA T 21.01.76-JA-006133
*A88 F04 Q42 (A17 A93) (26.07.79) *DT2702-043 C02c-01/04*

Filling body for a container for treatment of effluent water comprises a 2-dimensional net-type arrangement of crimped, bonded, synthetic fibres.

One or more ducts pass through the packing which have been formed by moulding. The component filaments of the packing are fused together at their points of intersection. They are suitably made of polypropylene and have dia. of 1-2mm. The packing has a void vol of 80-98% i.e. only 20-2% of its vol. is occupied by fibrous material. 19.1.77 as 702043(8pp267).

LUDE/ ★ D15 56428B/31 ★DT
Containers for sludge collection and thickening - r
transparent material with internal light source
LUDECKE A 23.01.78-DT-802701
(26.07.79) C02c-01/26 C02c-03

Containers for use for the collection and thickenin
sludge in water clarification installations are made
-parent material. A light source can be moved ve
over the whole depth of its contents and valves, ar
at different levels,can be operated to extract the pu
pending on the observations.
The sludge can be drawn off selectively so that t
-er content in the discharge can be minimised. Ca
and operational costs for subsequent stages can thu
saved. 23.1.78 as 802701 (6pp39).

KOST/ ★ D15 56468B/31 ★DT 2
Low cost water filter - comprising fibre mat stretched over b
of partitioned rectangular frame
KOSTER S 24.01.78-DT-802891
J01 P14 (26.07.79) A01k-64/02 B01d-29/16

A filter for the purification of liquids, esp. water f
aria, swimming pools and clarification plants, con
of the filter element and a pump, preferably an air
pump which is inserted in the element. The filter
is a rectangular frame with square subdivisions wh
-vered on the two large sides by filter cloth.
Pref. pump and filter area are matched to produ
flow rate through the filter cloth of 0.05-0.2 cm/m
(0.13-0.17 cm/min). The filter cloth is a 4-10mm
fibre (non-woven) mat.
This is a simple, low-cost filter which requires
maintenance. 24.1.78 as 802891 (10pp39).

APEL/ ★ D15 56482B/31 ★DT 2
Liq. ozonising device - with atomised ozone in counter
impeller driven liquid flow
APEL G 25.01.78-DT-803063
E36 J03 P34 Q46 (26.07.79) A61l-13/06 B01f-03/04 C02
C02c-01/12 E04h-03/20

An ozoniser for a liq. supplies ozone in counter flo
the moving liq. A tube with an ozone atomiser has
upstream side an impeller which fills up the flow p
area and moves the liquid along in the axial directi
This is a simple and inexpensive device which e
longer contact times between ozone and liquid and
es at a high efficiency. When used for swimming p
prevents allergies and smarting eyes as caused by
addition. 25.1.78 as 803063 (12pp39).

ASKO- ★ D15 56576B/31 ★DT 2
Biological dry toilet - combined with biological effluent puri
by partial immersion in equalising tank
ASKO-UPO OY 24.01.78-SF-000219
(26.07.79) C02c-01/06 C05f-09/02

Biological dry tiolet is combined with a biological e
purification plant. The dry tiolet container is partl
ersed into an equalising tank. A biogenic filter is i
in the pump circuit and a fan extracts the air.
Arrangement speeds up the composting process
effective utilisation of the heat contained in the so-c
grey water. The erection of the compact unit is sin
and it requires little floor space or piping. 20.1.79
902209 (11pp39).

NAGM ★ D15 56585B/31 ★DT 2
Purifying phosphorus cpd. - contg. waste waters - by cu
phosphorus cpd.-storing microorganisms e.g. Arthr
Micrococcus and Nocardia species
UNIV NAGOYA 23.01.78-JA-006061
(D16) (26.07.79) C02c-01/02

Waste waters contg. P cpds. are purified by (a) cul
ing, in waste waters, Arthrobacter, Micrococcus,
-dia, Cellumonas, Oerskovia, Corynebacterium, B
bacterium or Kurthia microorganism species capab

pg. the accumulated P cpd.-contg. microorganisms
the waste waters.
ie microorganisms do not release the accumulated
ds. Accumulated P cpd,. quantity is appreciable,
cultivation of Arthrobacter globiformis (ATCC 8010)
aq. soln. at 30°C, pH 7.5, reduced H_3PO_4 concn.
100- to 0.2 ppm (compared with 80 ppm on using Ac-
iobacter lacticum CCM 69). Bacterial cell wt. reach
555 mg/l w.r.t. dry wt. H_3PO_4 content in dry cells
0.19 g/g. 22.1.79 as 902365 (10pp200).

/ ★ D15 56617B/31 ★FR 2407-176
ing domestic waste water by flocculation and sepn. - includes
ig aluminium sulphate before the flocculant
COEUR R A J 25.10.77-FR-032064
(29.06.79) C02c-05/02

te water treatment comprises flocculation and sepn. by
ntation and/or filtration of the flocculated material, by
ing 1-4 pts. of Al sulphate per 10,000 pts. water with
water before adding the flocculant. The Al sulphate is
. added as an aq. soln. specifically contg. 13-17%.
Process is inexpensive and results in the formation of
e flocks, when the flocculant is added, which are easi-
epd. e.g. by passing through a screen. 25.10.77 as
064. (5pp)

/ ★ D15 56638B/31 ★FR 2407-644
omatic self-cleaning grill for rough screening water, effluent
- has motorised rake which is cleared after each operating
ke
ELMONTE N 29.10.77-ES-463703
(29.06.79) C02c-01/22

eening grill installation for trapping rubbish suspended
water to be treated has vertical, spaced bars with gaps
ch can be combed clear by the teeth of a vertically dis-
cable rake. The rake is fixed to one end of a support
e which is powered to move the rake as well as to dis-
age its teeth from the grill. During the disengagement,
ch takes place at the top of the stroke of the rake, the
th are drawn across a scraper which clears rubbish
m the rake.
The support tube is pref. connected by cable to a lifting
ch. The tube pref. rises between guide rollers fitted
a pivoted bracket which can be moved by a fluid power
inder to disengage the rake. The scraper which clears
rake is pref. a rubber blade fixed on resilient mount-
s.
Used for rough filtration of water at pump stations,
er water extn. plants, waste water treatment plants
.
Appts. can be constructed as a packaged, monobloc
it. The unit is compact, simple and comparatively in-
pensive; it is easily fitted into existing installations.
e rake action can be automatically programmed on an
ectric timer. 27.10.78 as U30551. (9pp448)

VR ★ D15 56639B/31 ★GB 1549-352
C-acrylic acid graft copolymer selective permeability membrane
sed in appts. for desalinating sea water or purifying waste water
AGENCE NAT VALORISA (SCTE-) 15.09.75-FR-028253
A14 J01 (A88) (01.08.79) B01d-13/04 C08f-220/06 C08f-259/04
membrane has a wt. ratio of acrylic acid to PVC of
ef. 8-70, esp. 10-20%. Pref. the membrane is made by
afting acrylic acid onto a PVC sheet using e.g. ionising
diation. The bonding pref. takes place in the presence
a swelling agent for PVC e.g. $CHCl_3$, benzene or MEK.
he degree of swelling may be increased by neutralising
e acid gps. of the bonded PVC with a strong base e.g.
form the Na or K salt.
The membranes are used in dialysis, electrodialysis,
inverse osmosis and may be fitted in electrolysis cells,
ombustible piles or appts. for the desalination of sea-
ater or for purifying waste water. 20.5.76 as 020924
pp966)

LO- ★ D15 56643B/31 ★GB 1549-400
erobic biological treatment of sewage on small scale - utilises
ngle sewage inlet into series connected treatment tanks
EFLO INT LTD 27.05.76-GB-022166
(01.08.79) C02c-01/06
ge treatment is effected in a pair of series connected

aeration vessels. Raw sewage is fed into a first vessel a
subjected to bacterial action under aerobic conditions.
Part of the resulting mixed liquor is transferred to the
second vessel and subjected to further bacterial action
under aerobic conditions. Simultaneously, a proportion c
the mixed liquor is recycled to the first vessel.
Transfer of mixed liquor to the second vessel is ceas
and so is aeration in the second vessel to permit settling
in the vessel. The liq. effluent is then drawn off. The pre
ceding process steps are repeated at suitable intervals.
Used as activated sludge process for small scale use,
such as villages, camps and ships, e.g. up to 300 perso
The vessels are in series so that only one inlet for raw
sewage is required. The second vessel is used as an aer
tion tank and as a settling tank and is cheap to build and i
stall. A protection arrangement is used for the inlet of th
effluent tank. Drains are provided for ease of removal of
the built up sludge. 19.5.77 (9pp1044)

ROHM D15 83030X/45 =GB 1549-69
Poly(vinyl-imidazoline) and salts dispersion in inert oil - prepd. fro
polyacrylonitrile, ethylene diamine and sulphide catalyst a used c
flocculants
ROHM & HAAS CO 29.10.75-US-626897 (25.04.75-US-571884)
*A14 (A97) (01.08.79) *BE-841-084 C08f-08/32*
Prepn. of poly(vinylimidazoline) (I) or its salt in an inert
oil having a b.pt. ≥120°C., comprises (a) reacting acryl
nitrile polymer with ethylene diamine in mole ratios of
1: ≥1, in volatile solvent contg. (in)organic sulphide ac-
celerator which forms an acidic thiol gp. and/or generat
H_2S under the reaction conditions, while maintaining the
reaction medium at 40-100°C. and under a dry inert atmo
to produce (I) and continuously purging off gaseous NH_3,
and (b) distilling off the volatile solvent under reduced
pressure while concurrently adding inert oil to yield a
dispersion in which the concn. of (I) or its salt is $\not>$ 65 wt
%.
Excess ethylene diamine is removed by distn. before o
during the addn. of oil. The resulting stable dispersions
are useful as flocculants for dewatering sludges. The
usual centrifuging and drying step of the reaction mixt. i
prior art process is avoided. 15.4.76 as 015459 (11pp924

OSAC- ★ D15 56743B/31 ★J5 4076-62
Cement compsn. for solidification of industrial waste - comprise
portland and aluminous cement, gypsum, calcareous matter an
setting regulator
OSAKA CEMENT KK 01.12.77-JA-143271
J01 L02 (19.06.79) C04b-07 C04b-29

Compsn. is made up of 100 pts.wt. of the mixt. contg. 30 - 80 wt.% of portland cement, 15 - 40 wt.% of aluminous cement and 5 - 30 wt.% of gypsum, 0 - 15 pts.wt. of calcareous matter and 0 - 2.5 pts.wt. of setting regulator.

Calcareous matter contains or liberates $Ca(OH)_2$ (e.g. quick lime, slaked lime, dolomite plaster) and is used in amt. of (20 - (wt.% of aluminous cement) . 0.43) pts.wt. Setting regulator is hydroxycarboxylic acid (e.g., citric acid), ketonic acid or their salts (Na, K).

Harmful matter in the industrial wastes (e.g., salts of Cr, Cu, Zn, Pb, etc., esp. Cr^{6+}) are fixed effectively
by adsorption, conversion into sparingly soluble matter o
hermetical sealing. The compsn. has workable setting time (i.e., 10 - 120 min.), high early strength, and sufficient high strength of long time.

It also has low contractibility and cracking is prevented. 1.12.77 as 143271 (6pp170).

IDOG/ ★ D15 56882B/31 ★J5 4077-28
Water reclamation from e.g. oily or organic solvent-contg. waste
by heating the water to evaporate it and cooling the water on tube
so that it is collected around the edges of the appts.
IDOGAWA S 12.05.75-JA-057053
(20.06.79) B01d-03 C02c-05

The water is introduced from a tank through a control valve into a shallow heating tank in response to the distn. A distilled water receiver and cooling tubes are disposed outside the upper edge of the heating tank.

The water is heated and boiled, using an oil, to evaporate the water. The evaporated water is distilled and liquidised by the cooling tubes to be collected by the receiver, and the reclaimed water is continuously taken out through a water separator to the outside. The components remaining in the heating tank are discharged. 12.5.75 as 057053 (2pp35).

HITA ★ D15 56883B/31 ★J5 4077-281

Treating salt soln. - with exhaust heat from crystalliser used to concentrate soln.

HITACHI KK (HIEJ) 02.12.77-JA-143918
(20.06.79) B01d-09/02 B01d-13

Salt soln. is introduced from a tank into a desalting means after it is passed through a first heat exchanger to increase its temp.

The conc. liq. is introduced from the desalting means into a crystalliser after it is passed through a second heat exchanger to further increase its temp.. A heated gas is introduced from a gas heater into the crystalliser, and a mixt. gas of a vapour and the heated gas recovered from the crystalliser is passed in order through the second and first heat exchangers to heat respectively the conc. liq. and the salt soln..

The salt soln. is easily concentrated to crystallise the salts by use of the exhaust heat from the crystalliser so as to improve the treating efficiency. 2.12.77 as 143918 (5pp35).

TAKG ★ D15 56901B/31 ★J5 4077-459

Surfactant-emulsified oil-contg. waste water treatment - with sodium carboxymethyl cellulose and polyvalent metal cpd.

TAKI KAGAKU KK 02.12.77-JA-145386
(20.06.79) C02c-05/02

A method of treating surfactant-emulsified oil-containing waste waters, e.g. discharged from cutting processing factory, rolling mill, automobile factory, and other machine shops comprises mixing the water with sodium salt of carboxymethylcellulose in an amt. of 0.05 - 50 wt.% based on the weight of oil present, and then mixing it with a polyvalent metal donator, e.g., aluminium sulphate, aluminium chloride, basic aluminium sulphate, basic aluminium chloride, aluminium nitrate, calcium chloride, iron sulphate, iron chloride, etc., in an amt. of 0.05 - 30 wt.% based on the weight of oil present in water to ppte. and coagulate the oil.

The method is applicable regardless of the kind of surfactants used as emulsifiers, but is pref. applicable to cationic surfactant-emulsified oil-containing waste waters. It provides high efficiency at low cost. 2.12.77 as 145386 (2pp117).

KATA- ★ D15 56902B/31 ★J5 4077-460

Treating waste water from blast furnace or converter slag - by mixing with prim. phosphate to regulate pH before discharging

KATAYAMA KAGAKU KOG 02.12.77-JA-145419
L02 M24 (20.06.79) C02b-01/30

Waste water, or leachate, contg. strong alkaline components, is mixed with a primary phosphate, e.g., Na phosphate, K phosphate, ammonium phosphate, Ca phosphate, or Mg phosphate, at a point near the drain port to regulate the pH of leachate to 5.8 to 8.6, and is discharged to the outside.

The use of prim. phosphates, which are nontoxic and safe to man, animals, plants etc., enables neutralisation of waste water, or leachate, from stacked or reclaimed slag very effectively and economically. The chemicals are used pref. in a 5 to 10% aq. soln.. 2.12.77 as 145419 (5pp).

TOHS ★ D15 56903B/31 ★J5 4077-461

Organic waste water treatment - using twin aeration tanks and aerobic microorganisms

TOHO RAYON LTD 02.12.77-JA-143999
(20.06.79) C02c-01/06

In treating organic waste waters using twin aeration tanks to utilise the biological action of aerobic microorganisms, in the first aeration tank, with activated sludge, organic waste water is aerated and after stopping the aeration, activated sludge is allowed to sediment and supernatant liquor is allowed to discharge, while the remaining liquor with activated sludge are mixed together and then wa
water to be treated is again charged into the first ae
tank.

In this batchwise organic waste water treatment r
the occurrence of excess sludge is almost eliminate
higher BOD removing rate is attained even if there i
high as 0.5 $Kg/m^3.D$ of BOD load. The BOD remov
rate is 90 - 98%. 2.12.77 as 143999 (3pp117).

AGEN ★ D15 57036B/31 ★J5 40

**Recovering spent froth treating agent from heavy metal com
by adding ammonia to form heavy metal ammine comple
extracting the agent with e.g. chloroform**

AGENCY OF IND SCI TECH 05.12.77-JA-146397
E16 (22.06.79) C02c-05

Method comprises (a) adding a froth treating reagent
such as N-mono capryl diethylene triamine hydrochlo
n - monolauroyl diethylene triamine hydrochloride et
e.g. sulphate soln. which contains heavy metal ions th
in so as to carry out froth flotation at PH $\sim$6, (b) add
ammonia gas or ammonia water to the soln. separate
make heavy metal ions fromthe formed complex, (c)
adding ammonia water to the soln. to convert heavy n
ions to amine complex, (d) treating the solution with
$CHCl_3$ to extract the froth treating reagent.

HCl can be added into a heavy metal contained solu
instead of adding ammonia gas or ammonia water so t
complex of heavy metal ions and of reagent can be for
in said solution at PH < 3. The heavy metal is e.g. C
Ni, Co, Zn, Cd etc. . 5.12.77 as 146397 (3pp135).

TOYT ★ D15 57066B/31 ★J5 407

**Treating water-soluble quenching oil waste water - by addir
amine-type organic coagulant and stirring by air blowing to flo
impurities**

TOYOTA MOTOR KK 06.12.77-JA-146438
A97 M24 (22.06.79) C02c-05/02

Treatment of water-soluble quenching oil waste water
consisting of PVA, polyethyleneglycol, etc., dischar
from the automobile industry, machinery industry, to
and moulds industry, etc. is claimed. Method compri
adding 100 - 500 ppm, pref. 250 - 300 ppm, of an am
series organic coagulant, e.g. I.K. floc T-710, I.K.
floc T-720, I.K. floc T-730, etc. to water-soluble que
ing oil waste water and stirring by air blowing to floa
the foreign material present for removal.

Method removes e.g. cutting oil, emulsified oil, et
contained in the water-soluble quenching oil waste wa
without the loss of the effective components of quenchi
oil by using very inexpensive amine coagulants. This
method, also, generates no high-COD waste water.
6.12.77 as 146438 (5pp117).

KANA/ ★ D15 57067B/31 ★J5 407

**Treating sludge, e.g. from sewage - by adding a fluoride
coagulant, electrolysing to dehydrate, adding calcium-contg. c
and further electrolysing**

KANAI M 05.12.77-JA-145969
L02 (22.06.79) C02c-03

Treatment and utilisation of sludge, partic. sewage
sludge, is claimed in which a fluoride ($\leqslant$ 5% of the
SS content of sludge) and a coagulant (or a bridging
agent), e.g., an iron cpd. or a zinc cpd. (approx. 10
of SS) are added to sludge, and then the sludge is subj
ed to electrolysis for 30 min. - 1 hr. for dehydration,
followed by another $\geqslant$ 30 min. electrolysis by adding 5
of a Ca agent to the sludge and subsequent air drying.

Method provides a fibrous felt-like material by mou
ing the dried sludge into a plate form which can be app
as an elastic paving material for the surface of concre
or the surface of road, playground, etc.. This dried
sludge moulding also, can be utilised as roadbed, sub-
soil, and sound shield for ceiling/floor, etc.. 5.12.77
as 145969 (2pp117).

★ D15 57068B/31 ★J5 4078-367
ing sludge from rivers, excavations, sewage works, etc. - by
solidifying agent and subjecting to a consolidating-
ating process
BAYASHIGUMI KK 06.12.77-JA-146311
Q42 *(22.06.79) B01j-01 C02c-03 E02d-03/12*

e from e.g. rivers, lakes and marshes and ports, ea-
rks, factories, sewage treatment plants, etc. is
ed by first mixing with a solidifying agent and then
cting to the following consolidation-dehydration pro-

nking is formed over the sludge and is then loaded.
ting, sheet, etc. is overlaid on the sludge and banking
ain formed over the covered sludge, before loading.
r-tight sheet is covered over the sludge and is loaded
evacuating the air from the inside. A sand mat or
in pipe is laid in the banking, or a drain pipe is
n vertically into the banking to accelerate the dehyd-
n, the addn. of the solidifying agent and the consol-
on of the sludge are performed by a mixing machine
e same time or at a factory after transportation of
ludge.
omplete consolidation and great strength is obtd. in
y short time. The solidified sludge can be used as
illing, roadbeds, dams, etc.. 6.12.77 as 146311
17).

★ D15 57072B/31 ★J5 4078-372
distn. appts. - using solar energy driven photocell as power
e
JMI SEIMITSU KOGY 05.12.77-JA-144977
(22.06.79) B01d-03 C02b-01/06

tn. appts. comprises a light-collecting device conn-
l to a photocell for heating a liquid bath contained in
ing, a heating jacket surrounding at least a portion
e container wall and including fins extending from the
iner wall into the bath, a conduit connected to the
g and incorporating a pump for drawing the water
ur generated in the hollow space of the container
e the liquid bath, into the jacket, and a reservoir
ollecting the water condensate discharged from the
ng jacket.
he water vapour is cooled and condensed by heat
ange with the liquid remaining in the container.
.77 as 144977 (5pp47).

★ D15 57073B/31 ★J5 4078-373
. for fresh water prodn. - has high pressure and low pressure
ne to which steam generator is connected
ABCOCK-HITACHI KK 05.12.77-JA-145120
(22.06.79) B01d-03/06

ts. for producing fresh water, is associated with a
pressure turbine and a low pressure turbine to which
eam generator is connected. The low pressure steam
ing the low pressure turbine is introduced into a con-
er where the steam is cooled and condensed by heat
ange with a sea water. The heated brine is drawn
pump into an auxiliary flush evaporator where pure
r is vaporised by heat exchange with the condensate
the condenser, and then into a main flush evaporator.
portion of the steam leaving the turbine is introduc-
nto the main flush evaporator and used for the heating
on. of the brine. 5.12.77 as 145120 (4pp47).

K ★ D15 57191B/31 ★J5 4078-857
s. for treating ammonia-contg. water by steam stripping -
des steam distn. means and oxidising and reducing catalyst
rs
URITA WATER IND KK 05.12.77-JA-145099
35 *(23.06.79) C02c-01/40 C02c-05*

appts. is used for treating digested night soil liquor,
estic sewage, gas liquor, an effluent discharged
n ammonia-synthesising plant etc. and decomposing
ammonia stripped by oxidn. to N_2 without any dis-
rge of harmful matters, e.g. NO_x etc. to the outside
tem. The appts. comprises (a) a steam distillation
ns where the ammonia-contg. water is in contact
a steam to distill-off ammonia from the ammonia-
g. water; (b) an oxidising catalyst layer which contacts
gas to oxidise ammonia; (c)
a reducing catalyst layer with which the oxidised gas is in contact to reduce NO_x. Supply and discharge means for reagents and prods. are provided. 5.12.77 as 145099 (5pp34).

ASAH ★ D15 57192B/31 ★J5 4078-858
Purificn. of water contg. excreta and waste from live fish - by treating with oxidising catalyst filled layer e.g. activated charcoal and halogen-type oxidising agent
ASAHI CHEMICAL IND KK 03.12.77-JA-145477
P14 (23.06.79) A01k-63 C02c-05/04

In preserving living fishes and shellfishes over long period under high density, the improvement comprising supplying continuously a polluted water contg. excretions and waste matters of the living fish and shellfish to an oxidising catalyst-filled layer, esp. activated charcoal layer while injecting simultaneously and continuously into the activated charcoal layer a halogen-bearing oxidising agent, e.g. chlorine, bromine, iodine, perchloric acid, chloric acid, chlorous acid, hypochlorous acid or their salts to decompose by oxidn. the excretions and the wasted matters, and recirculating the water thus purified to a fish vessel.

The water is effectively and rapidly purified even with very small-sized treating means. The water is always maintained in purified condition even at fish density. The fish are, e.g. sea bream, red salmon, sweet fish, eel, carp, flatfish, prawn, spiny robster, scallop, clam, top shell and ear shell etc.. 3.12.77 as 145477 (5pp34).

SEIK- ★ D15 57193B/31 ★J5 4078-859
Water purificn. agent for breeding tropical fish or farming sea fish - comprises Pseudomonas or Thiobacillus bacteria which grow when sodium sulphide, ammonia and fatty acid are added
SEIKENKAI ZH 04.12.77-JA-145546
(D16) (23.06.79) C02c-01/02 C12k-01/08 C12k-03

The purifying agent comprises Pseudomonas or Thiobacillus gp. bacteria which grow when Na_2S, NH_3 and a lower fatty acid are added to the medium. The agent is prepd. by culturing the bacteria in a culture medium contg. Na_2S NH_3 and the lower fatty acid(s), and/or amino acid(s) selected from cystine, cysteine, methionine, glycine, glutamic acid, alanine, aminobutyric acid and lysine.

The preservation of the bacteria is carried-out by maintaining the bacteria under dried, half-dried or wet state at ordinary or low temp. while additive(s) are added to the culture medium around the bacteria. 4.12.77 as 145546 (8pp34).

HITA ★ D15 57194B/31 ★J5 4078-860
Treating copper ion-contg. waste e.g. from plating or etching - by adding a palladium contg. activated charcoal to deposit metallic copper
HITACHI KK 07.12.77-JA-146063
E31 M11 (23.06.79) C02c-05/02

Method comprises adding Pd-contg. activated charcoal to deposit the Cu ion on the Pd adsorbed on the activated charcoal, in the form of metal Cu.

In an example, an activated charcoal was immersed in a soln. contg. 500 ml/1 of HCl, 20 g/1 of $PdCl_2$ and 50 g/1 of $SnCl_2$ or a soln. containing 15 g/1 of $AgNO_3$ and 50 g/1 of glutamic acid for 3 to 5 mins. under ordinary temp. followed by water washing. The activated charcoal was charged into a Cu ion-contg. waste liquor which is previously adjusted to pH of 6 - 8 followed by allowing to stand that state until blue colour was discoloured. The water thus treated was outflowed after neutralisation or reused as industrial water. 7.12.77 as 146063 (2pp34).

HITA ★ D15 57195B/31 ★J5 4078-861
Nitrification of ammonia contg. effluent - by removing BOD components and treating with activated sludge under aeration
HITACHI KK 07.12.77-JA-146022
(23.06.79) C02c-01/06

An effluent having nigh NH_4^+-N concn. (100 to 1,000 ppm) e.g. night soil or methane fermentation liquor etc. is subjected to nitrification treatment by (a) previously removing BOD components by sec. treatment and if necessary by the use of activated charcoal to make the BOD/-NH_4^+-N ratio of $\leqslant$ 0.01; and subsequently treating the effluent with an activated sludge while aerating under oxygen transfer rate of 5 tp 30 mMo$_2$/l hr., pH 7 - 9 and load of 1 - 4 kg NH$_4^+$/m^3 day esp. in a tower-type gas-agitation vessel.

Initially suspended solids are increased in the reaction liquor, and settlability of sludge is lowered, but it is formed into flocs which are not destructed under high aeration rate by further treatment. The nitrification of the effluent is carried-out with the flocs thus obtd.. 7.12.77 as 146022 (5pp34).

FJIE ★ D15 57212B/31 ★J5 4079-099
Determination of organic substances in water - by measuring difference in concn. of carbon di:oxide gas in prim. and sec. sample gases using differential and non-dispersing IR analyser
FUJI ELECTRIC MFG KK 06.12.77-JA-146339
R16 (23.06.79) G01n-33/18

Process comprises measuring the difference in the concn. of CO$_2$ gas in (a) a prim. sample gas and that in (b) a sec. sample gas, using a differential and non-dispersing IR CO$_2$ analyser.

Gas (a) is prepd. by vaporising a sample gas with O$_2$-containing gas, pref. O$_2$, by passing it through a prim. heating zone of relatively low temp. pref. 100-150°C, and then converting the inorganic C to CO$_2$; gas (b) is prepd. by burning and oxidising the organic substance in the sample gas or a part of (a) by passing it through a sec. heating zone at high temp. pref. 800-900°C. Gas (a) is passed through a gas passage having delayed characteristics similar to those of the passage through which gas (b) has been passed. 6.12.77 as 146339 (4pp90).

NITW ★ D15 57233B/31 ★J5 4079-130
Phosphoric acid recovery from aluminium polishing waste - by addn. of alcohol e.g. methanol, sepn. of aluminium phosphate ppte., then fractional distn.
NITTETSU MINING KK 08.12.77-JA-146561
E36 M14 (23.06.79) C23f-01

Method for recovering phosphoric acid in waste of a chemical polishing liquid for aluminium metal or alloy materials, comprises (1) adding an alcohol to the waste so as to be dissolved mutually with the phosphoric acid therein and to separate the precipitating aluminium phosphate and (2) distilling the sepd. mother liq. to fractionally distil the alcohol while the phosphoric acid is recovered.

The chemical polishing phosphoric acid liquid is ineffective unless the concn. of H$_3$PO$_4$ is > 70%, the waste is generally discharged with H$_3$PO$_4$ concn. > 70%. It is not conc. to crystallise the aluminium phosphate but its viscosity is reduced when e.g. methyl alcohol is added to recover the phosphoric acid in an amt of > 70%. 8.12.77 as 146561 (2pp53).

SATO- ★ D15 57249B/31 ★J5 4079-164
Dehydration of waste sludge to form fertiliser - by addn. of acid to modify sludge, neutralisation with basic cpd. and dehydration
SATO KOGYO KK 07.12.77-JA-146849
C04 (23.06.79) B01d-21/ B01j-01 C02c-03 C05f-07*

Method, comprising (1) modifying and decomposition of the components in the sludge, by addn. of acid (II) to partially dehydrated sludge; (2) neutralisation of sludge with addition of basic compound and (3) dehydration. The sludge can be dehydrated to water content ~50%.

pH of (I) is adjusted to 3 using e.g. HCl, H$_2$SO$_4$ or HNO$_3$. By the addition of acid, components in sludge are modified and/or decomposed and begin to coagulate. As base, slaked lime is pref. used. The cake obtd. is dried to water content about 15% and used as fertiliser. 7.12.77 as 146849 (3pp42).

TOKE ★ D15 57250B/31 ★J5 4079-165
Freezing and melting sludge to improve its filterability - by lowering container of sludge into cooling tank then into water
TOKYO SHIBAURA ELEC LTD 08.12.77-JA-147667
J01 Q75 (23.06.79) B01d-43 C02c-03 F25d-31

A metal or high heatl conductive snnthetic resin container for accommodating the sludge is hung by a chain to a balance weight. The container may be raised and lowered by

reversely at variable speed from a motor. A cooli
ium in a cooling tank is maintained at -30°C to -40
a cooling pipe.

The container is slowly lowered into the cooling
freeze the sludge and left in for about ten minutes.
container is then rapidly pulled up and dipped in a
tank to melt the sludge.

The freezing velocity may be easily regulated to
the apparatus inexpensively. This method may be n
used to improve the filterability of the sludge, but
may be applied in the concentration and separation
soluble substances. 8.12.77 as 147667 (3pp35).

TOKE ★ D15 57256B/31 ★J5
**Appts. for pure water prodn. in home - using ion exchang
with heater provided to regenerate resin**
TOKYO SHIBAURA ELEC LTD 08.12.77-JA-146544
(23.06.79) B01j-01/04 C02b-01/16

Appts. for prodn. of pure water in the home is clai
from a city water contg. some ions, which will for
es on home appliances, when they evaporate or boi
water repeatedly. To easily produce the pure wate
without using any chemicals the novel device comp
an electric heater disposed on the inner space of a
er having water inlet and outlet or the outer edge o
container made of a heat-resistant material (agains
90°), and an ion exchange resin, which can be rege
by heat.

Typically, a raw water is fed into an inner conta
through the inlet to pass through the resin charged
container. Thus, purified water is obtd. After obta
the pure water, a timer is set to start the heater fo
eneration. 8.12.77 as 146544 (2pp26).

NICO- ★ D15 57258B/31 ★J5 4
**Electrolytic cell for mfg. acidic and alkaline waters - i
cylindrical cup-shaped anode chamber, with membran
situated above cathode chamber**
NIPPON COINCO KK 07.12.77-JA-146095
J03 (23.06.79) B01k-01 C02b-01/82

A device is claimed for producing acidic and alkali
waters by electrolysing city water in an electrolyti
having a membrane sheet. The alkaline water conta
activated calcium ions etc. effective for medical us
the acidic water for toilet water use.

To simplify the structure of the device (having n
cock for draining the waters from the cell), a catho
chamber is composed of a container and an anode c
consisting of a cylindrical cup having a bottom com
of the membrane sheet, communicates with the cont
The cup is removably assembled with the container
to locate above it. Anode and cathode electrodes ar
posed in the container and cup, respectively, so as
ose each other through the sheet. 7.12.77 as 14609
(3pp26).

TOYJ ★ D15 57276B/31 ★J5 4
**Pure brine prepn. - by sepg. flock formed by adding lime t
brine contg. sodium bi:carbonate, calcium and magnesiu
control of pH**
TOYO SODA KK 08.12.77-JA-146536
E34 (23.06.79) C01d-03/16

Process comprises sepg. flock formed by adding li
to crude brine contg. sodium bicarbonate, common
calcium and magnesium. The pH of the crude brine-
lime mixt. is first adjusted to 8.5 - 10.5, after whi
pH is kept in the range 11.0 - 12.5.

Powder of CaO or Ca(OH)$_2$ or milk of lime may b
used as the lime. The amt. of lime added is pref. 0
95 mole per mole of NaHCO$_3$ in the crude brine. Sea
water may be used as raw material. 8.12.77 as 146
(5pp96).

AGEN D15 61573W/37 =J7 9
**Alkali-resistant nitrohumic acid adsorbents - prepd. fron
treated calcium nitrohumate, for waste water treatment**
AGENCY OF IND SCI TECH 27.02.74-JA-023140
*A97 J01 (05.07.79) *NL7502-263 B01d-15*

Nitrohumic acid adsorbents with increased alkali re

, (b) adding a small amt. of a water-soluble poly-
mide to the insoluble matl. (c) kneading the mixt,
presence of H_2O, (d) moulding the mixt., and (e)
ting the prod. to heat treatment followed by acid
ent.

e prod. is esp. useful for removing heavy metals
waste waters, e.g. from mines and industrial plants.
dsorbents have a high exchange capacity and high
anical strength, unlike similar prods. prepd. from
rohumate, they have low solubility in alkaline media
o not lead to excessive discolouration of alkaline
waters, they can be regenerated repeatedly by acid
nent. 27. 2. 74 as 023140 B01d-15/00 (5. 7. 79)
ICY OF IND SCI TECH (5pp)(J50117688)

D15 67414X/36 =J7 9018-239

tory magnesium or cobalt spinel type cpds prodn - from
s of waste solns from aluminium treating and processing

SHIRO T 19.04.73-JA-044340
*M12 (05.07.79) *J49130-907 +C01f-07 C01g-51 C02c-
/02 C04b-35/44 C09c-01/40*

waste water from an Al treating or processing plant
utralised with acidic waste water to form a sludge.
k. waste soln. is added to the sludge to dissolve the
and an acidic waste soln. is added to form a sludge
. mainly Al $(OH)_3$. The sludge, opt. after washing
water, is transferred to a reactor, an alk. waste spin.
ded to dissolve the sludge as Na aluminate and an aq.
of a Mg salt, MgO, or $Mg(OH)_2$ powder or an aq.
of Co chloride is added to ppt. hydrated Mg alumin-
r Co aluminate. The ppt. is washed with water, sepd.
l, and fired at high temp. to yield a spinel-type cpd.
wet process.

n an example, a sludge (-9000g) from the neutralisation
k. and acidic waste waters were mixed with an alk.
te soln. to form Na aluminate, mixed with an acidic
te soln. to form a sludge (90% water) contg. mainly
$H)_3$ at pH 7.5, and mixed with an alk. waste soln. to
n $NaAl(OH)_4$. An aq. soln. (10 l) contg. 1020 g $MgCl_2$
added, and the pH was adjusted to 7.5. The mixt.
flocculated with Separan, filtered, washed, dried
00°, and fired at 1050° to yeild 708 g $MgO.Al_2O_3$
nels. 19. 4. 73 as 044340 C01f-7/00, C01g-51/00, C02c-
2, C04b-35/44, C09c-1/40 (7. 5. 79) TASHIRO H
)(J49130907)

A/ ★ D15 57354B/31 ★J7 9018-505

ficn. of iron-contg. water - by passing through filter layer of
vated coal in which suitable bacteria are cultured aerobically

AWAZOE A 24.11.71-JA-094330
31 (07.07.79) C02b-01/26

hod comprises passing Fe contg. water through a
ering layer consisting of activated coal, while feeding
to the layer and culturing iron bacteria in the layer.
saturated filter can be regenerated by oxidising
orbed iron and washing the oxide away from the layer.
11. 71 as 094330 C02b-1/26, C02b-1/14 (7. 7. 79)
WAZOE A (3pp83)(J48058652)

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l D15 15841X/09 =J7 9018-677

generating ion exchange resins - used in a condensed water
alting unit

EBARA INFILCO KK (EBAR) 04.07.74-JA-076741
*(09.07.79) *J51005-273 B01j-01/09 +C02b-01/74*

desalting unit (e.g. for preventing scaling and/or
rrosion of steam turbine boilers) is based upon an out-
column regeneration system using a desalting column,
pg. column, anion resin regenerating column, a mixing
lumn, and a column packed with OH-type strongly basic
ion exchange resin.

In the regenerating cycle, mixed resin in the desalting
lumn is transferred to the sepg. column where the mixt.
sepd. into cation - and anion resin layers. The anion
change resin is then transferred to an anion resin reg-
erating column where the resin is converted to OH type
treating with a stream of caustic alkali soln. Separately,
soln. of alkaline earth metal salt is passed through a
fth column of OH-type strongly basic anion exchange
sin. and the effluent soln. is passed through the regenerated resin bed in the anion resin regenerating column.

The cation exchange resin in the desalting column is regenerated with acid, and then the regenerated anion- and cation resins are transferred to the mixing column, where the resins are mixed together. 4. 7. 74 as 076741 C02b-1/74, B01j-1/09 (9. 7. 79) EBARA INFILCO CO (3pp)(J51005273)

NREN D15 44881X/24 =J7 9018-86

Decolourising lignin contg waste liquor - by oxidn with ozone ther contacting with weak basic anion exchange resin

NIPPON WATER TREATM KK 25.10.74-JA-123170
*F09 J01 P51 P63 (11.07.79) *J51049-560 +C02c-05/04*

To remove lignin from coloured lignin contg. waste solns. a large part of the lignin is decomposed by ozone oxidn. Ozone treatment is pref. performed till decolouration of waste soln. reaches 40-80%, then the residual relatively low mol. wt. lignin is removed by adsorption with weak basic anion exchange resin.

Used to treat waste soln. from bleaching processes in the prodn. of soda pulp, kraft pulp, etc. Decolouration is almost 100% and continuous treatment for a long period is possible. 25. 10. 74 as 123170 C02c-5/05 (11. 7. 79) JAPAN WATER TREATMENT (2pp)(J51049560)

KURK D15 26336Y/15 =J7 9018-98

Water purificn. process - involving use of separate cation exchange and anion exchange columns

KURITA WATER IND KK 30.08.75-JA-105314
*(11.07.79) *J52029-473 B01j-01/06 C02b-01/68*

Water purificn. appts. comprise a first stage ion exchange appts. comprising a strong acidic cation exchange resi and strong anion exchange resin, and a second stage ion exchange appts. comprising only a cation exchange resin.

More partic., raw water is decationised in a strong acidic cation exchange column (1), decarbonised in a decarbonising column (2), and deionised in a strong basic anion exchange resin column (3). The cations and anions which pass into the water in (1) and (3) are removed in a second cation column (4) and second anion column (5). Traces of NaOH from the first stage ion exchanger are removed by the second stage strong acidic cation exchange resin column (6).

Regeneration is easy as mixed columns of cation exchange resin and anion exchange resin column are not used. 30. 8. 75 as 105314 C02b-1/68 B01j-1/06 (11. 7. 79) KURITA WATER IND LT (4pp)(J52029473)

DORO D15 68909R/38 =NL-160-730

Continuous sedimentation

DORR OLIVER INC 10.03.69-US-805568
*(16.07.79) *NL7003-306 B01d-21 C02c-01/34*

Sedimentation tank is equipped with a feed for the suspension, a floor discharge for the sediment and an overlow for the cleared fluid. The sediment is moved toward the central discharge opening in the floor of the sedimentation tank by means of rotating arms to which sweeper blades are rigidly attached. These arms are attached to the lower end of a central rotating shaft and consist of tubes which are hinged about vertical and horizontal axes. They are pulled around by means of thin cables attached to a rotating frame mounted above the surface of the fluid in the tank.

Since the submerged components are very small, the scraping effect is achieved with a min of power and the need to regularly clean the scraper device is eliminated. 9. 3. 70 as 003306(7pp1370).

UNIC D15 91879R/49 =NL-160-788

Biochemical oxidation with low sludge re- - cycle

UNION CARBIDE CORP 02.07.69-US-838498
*(16.07.79) *US3547-813 C02c-01/06*

Water contg. material which can be biochemically oxidise is purified by first passing with an active slime for 20-180 mins through an aeration vessel to make contact with an O_2-contg. gas and dissolving ⩾ 3 mg/l O_2 in the slime. This active slime is then passed to a separate vessel where it sinks under the influence of water. The aq slime suspn. is then recycled to give in the first vessel a suspended solids content of 4.000-12.000 mg/l.

Above the first vessel the O_2- contg. gas is present in the enclosed vol to an extent ≥ 50 vol% and the partial O_2 pressure is maintained at ≥ 300 mm Hg. The slime has a solid content of 12.000-50.000 mg/l, of which ≥ 55% is volatile material.

Sufficient material is recycled so that the biochemically oxidisatole part (measured in BOD_5-O_2) is ≥ 0.15 kg in the first vessel (pref. 0.25 kg) and the vol. ratio of recycled aq. slime suspn. to water to be treated is between 0.1 and 0.5. 1.7.70 as 009735(13pp549).

UNIC D15 91880R/49 =NL-160-789
Bio-oxidation with low sludge yield
UNION CARBIDE CORP 02.07.69-US-838499
*(16.07.79) *US3547-814 C02c-01/06*

Water contg. brochemically oxidisable material is purified by mixing vigourously with a biologically active slime in a contact zone, then passing into a stabilisation zone and an auto-oxin. zone, using an O_2-contg. gas to aerate.

The biologically active slime is mixed with the water to give a homogenous mixt., which is passed through the first 2 zones with a throughp of ≤ 90 mins, but ≥20 mins. The time spent in the first zone is ≥5 mins. The through-p for the therial zone is at most 210 mins. but ≥ 30 mins

The amt of active slime used is sufficient to give a solids content in the first zone of ≥ 3000 mg/C. The aeration in the first zone is carried out with a gas contg. ≥ 50 vol.% O_2; in the second zone the gas contains ≥ 35 vol % O_2 and in the third zone the gas contains ≥ 35 vol % O_2.

The amt of dissolved O_2 in the fluid contg. the biologically active slime in the first zone is ≥ 0.5 mg/C and in the third zone ≥5 mg/C. 1.7.70 as 009738(13pp549).

UNIC D15 91878R/49 =NL-160-790
High oxygen utilisation in bod cntng water - treatment
UNION CARBIDE CORP 02.07.69-US-838467
*(16.07.79) *US3547-812 C02c-01/06*

Water contg. biochemically oxidisable material is purified by sealing in an atmosphere with a biomass and aerated with a gas contg. ≥ 60 vol % O_2 using circulation pumps to maintain on O_2 content in soln. of ≥ 2 mg/C.

The aeration is carried out in the presence of an active slime using gas contg. ≥ 60 vol % O_2 corresp with 0.02-0.24 kgmol O_2 per kWh of the total energy used to recinculate and mix the slurry.

The partial O_2-pressure in the gas stream above the fluid is maintained at ≥ 300 mm Hgs; the percentage O_2 in this stream is ≯ 80 vol% and the dissolved O_2 content of the stream is < 70 % of the saturation value of the O_2 in the gas. 1.7.70 as 009739(16pp549).

UNIC D15 91881R/49 =NL-160-791
Staged oxygenation of bod-cntng water
UNION CARBIDE CORP 02.07.69-US-838500
*(16.07.79) *US3547-815 C02c-01/06*

Water contg. biochemically oxidisable material is purified by passing with an active slime through 2 or more aeration zones using an O_2- contg. gas. The aeration is carried out using mixing and aeration devices and one zone is aerated using a gas which contains ≥50 vol% O_2. The gases used for aeration are added in an amt corresp to 0.04-0.24 kgmol O_2 per k of the total energy used in all zones.

The gas after the initial aeration contains ≥ 35 vol% O_2 and in total, the amt of O_2 in the gases used for aeration is ≥60 vol%. The O_2 content is the final residual gas is 21 vol% but is ≯ 80 vol%. 1.7.70 as 009741(20pp549).

FUCH/ D15 48996S/30 =NL-160-792
Agitator for introducing additives to liquids
FUCHS H 26.09.67-OE-008752
*J02 (16.07.79) *CA-875-969 +B01f-05/16 C02c-01/12*

A water aerator for introducing air into water comprises a central shaft down which the air or O_2, is passed and a rotor driven by a concentric outer shaft and so positioned that the air issuing form the lower end of the device is drawn into a high turbulence zone by the rotors. In order to hold the air and water together for the max possible time, thus increasing the quantity of O_2 dissolved in the water, the assembly is equipped with a dish shaped baffle above the rotor which extends the flow path of the turbulent stream. 18.9.68 as 013373(9pp1370).

BROV D15 16984S/09 =NL-
Condensing water vapour contg a small - proportion of air
BBC BROWN BOVERI AG 29.08.69-CH-013120
*J01 Q78 (16.07.79) *BE-755-389 +F28b-01/02*

Vapour containing a small quantity of a non-condens
gas, particularly steam with a small quantity, say.
air, is condensed in an appts. comprising a conden
aftercondensor and a cooler, each component consi
of a chamber with a cooling medium and pipes throu
which the mixture flows. The stages are sepd by in
-iate chambers in which there are no pipes. Each
divided into separate compartments and the mixture
from the aftercondensor into the cooler via throttlin
openings.

The chamber after the cooler is connected to a s
device. The appts. is so arranged that there are no
zones within the heat exchangers and the flow is eve
distributed for a wide variety of pressure and flow c
tions. 27.8.70 as 012674(6pp1370).

META- ★ D15 57389B/31 ★NL 7
Sepn. tank for aq. cleaning fluid contg. oils and fats - wi
cloth cladding for floor and walls, small outlet to control flo
time switch to ensure adequate settling time
METALAS-HOLLAND BV 18.01.78-NL-000618
J01 Q42 (20.07.79) B01d-21 B01d-23/02 E03f-05/16

Oils and fats are sepd from a cleaning fluid consisti
water to which chemicals have been added by means
filter installation/settling tank combination. The ta
-prises a reservoir whose walls and floor are clad
filter cloth with a large inlet and a small outlet equi
with a solenoid valve and a time switch. The filter
is pref. placed over a grid on the floor of the reserv
and isgripped by means of a retaining frame. On the
of the reservoir, the cloth is hung over spikes embe
into the wall.

The time switch ensures that the water remains i
reservoir for a sufficient period for settlement to oc
The small outlet minimises the discharge flow veloc
that the settled material is not disturbed. The settle
of heavier sediment onto the filter cloth improves th
ctiveness of the filter.

If the reservoir is to be coupled to a washing mac
the compartment of the machine contg. the washing f
is coupled to the reservoir inlet via an isolating valv
the reservoir is pref. sized so that, when the commu
ting valve is opened, the vol of fluid flowing out of th
washing machine to establish a common level betwee
machine and the reservoir is equal to the vol of the r
voir itself. The sepn. unit is partic useful for garage
installations where a conventional separator would be
adequate. 18.1.78 as 000618(14pp1370).

SULZ ★ D15 B/31 ★OE 78
Storing method for reusable activated sludge
GEBRUDER SULZER AG 03.04.78-CH-003530
(15.07.79) C02c-01/06 7.4.78 as 002479

PURA- ★ D15 B/31 ★OE 78
Aerating device for waste water
PURATOR-KLARANLAGEN 12.04.78-OE-002552
(15.07.79) C02c-01/12

SINT- ★ D15 B/31 ★RU --
Purifying residual waters and air contg. organo phosphoric cp
cyclone furnace with addn. of fuel and combustion air
evaporation
SINTEZA INTR 08.12.72-RU-073080
(15.08.78) C02c-01 C02c-05

CHTI- ★ D15 B/31 ★RU --
Purifying waste waters contg. sulphide and hexa:valent chrom
by mixing, adding aq. ferrous sulphate soln., basifying
sedimentation
COMB CHIM TIRNAVENI 21.02.74-RU-077770
E31 (15.08.78) C02c-05/04

r D15 B/31 ★RU --63-860
oil prod. removal from waste waters - by adding aluminium
soln. and entraining oil layer in foam formed by flowing in

T MINEREURILOR 06.09.74-RU-079924
(15.08.78) C02c-01/38

★ D15 B/31 ★RU --64-496
ry sieve having low amplitude - and higher harmonic
n to separate liquid from sludge
T GOSPODARI APEL 08.08.74-RU-079711
(30.08.78) C02c-01/22

★ D15 B/31 ★RU --65-839
dehydration by vertically immersed filters - for removal of
via a manifold
T CONSTR AGRICUL 27.02.74-RU-077852
(30.08.78) C02c-01/18

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r D15 57448B/31 ★SU -628-091
dialysis water desalinator - using ion-exchange membrane
ntrol system operated by signals from temp. salt-content and
te sensors
TLIN I M 04.12.74-SU-080290
(24.08.78) C02b-01/82 G05d-21/02

nit for preparing-distilled water by electrodialysis ed in parent patent 415961 has an ion-exchange mem- , which was designed to handle saline waters where rameters varied during the actual process. The rodialyser had a power supply and control system com ing a sensor/conductometric cell, fitted with a simil- condary instrument, plus a device forming the contrd iple. The control system contained a magnetic ampli conforming to the output signal from the controller he parameters of power supply unit. The equipment also be used to purify amino-acids and medicinal rations.

increase the precision with which the salt content of rocessed water is controlled, sensors to determine peed with which the temp., salt content, and flow- of the incoming water vary, are included in the pipe- prior to the chambers where deionisation takes place. sensors attached to the similar secondary apparatus onnected in series to the input of the controlling prin- forming apparatus.

lin, I.M., Pligin, B.A., Milovidov, R.G. et al. 38/15.10.78. 4.12.74 as 080290 Add to 415961 (3pp

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= ★ D15 57449B/31 ★SU -628-092
ourisation of aq. effluents by electro-coagulation - is rendered
effective by preliminarily contacting effluent with oxygen
bent, esp. manganese di:oxide
NGD ENG-CONS INST 23.07.75-SU-164230
(24.08.78) C02b-01/82 C02c-05/12

lourisation of highly coloured waters, e.g. dye efflu- by electrocoagulation with use of a soluble anode is oved by mixing the water, before the electrocoagul- , with an adsorbent capable of adsorbing oxygen, MnO_2 opt. fixed on a granular material, such as an inosilicate, pumice, keramsite, etc. By this method legree of decolourisation is increased, and the con- ption of electric energy is reduced.

triev, V.D., Kudinov, V.S., Mironov, A.M. Bul. 38/ 0.78. 23.7.75 as 164230 (3pp70)

J= ★ D15 57450B/31 ★SU -628-093
ent cleaner restricting activated sludge - has scraper mounted
r movable trolley activated by ropes wound round drums and
ys
DYUZVODOKANALPROEK 24.05.76-SU-363857
(24.08.78) C02c-01/30

proposed system is used for purifying effluents, which be used for inhibiting activated sludge entering with fluid after processing in aerating tanks, biological fil- , etc. It comprises a rectangular settling tank with receivers, movable trolley with rope drive, compris- deflecting and tensioning rollers, distributed along the meter of the tank, friction drums, electric motor and es stretched in the form of two arms around the rollers connected to the trolley. A scraper is connected by rods to the trolley.

Construction is improved and backward-forward movement of the trolley along the tank guaranteed, by connecting the rods to the trolley via hinges. The trolley is made of support girders to which the rope is attached.

Avleev, E.V., Turukin, V.V. Bul. 38/15.10.78. 24.5.76 as 363857 (3pp29)

WASU ★ D15 57451B/31 ★SU -628-094
Purification of effluent waters contg. petroleum impurities - by passing the water through filtering layer formed from asbestos fibres, and then applying reverse washing
BAKINO WATER SUPPLY 13.05.75-SU-133820
H05 (24.08.78) B01d-25/10 C02c-05

Purification of aq. effluent contg. petroleum impurities is carried out by forming a filtering layer on a netting. The layer is formed by passing effluent water and an asbestos fibre suspension through the net. Filtering is carried out through the layer and, when the filtering layer becomes clogged, reverse washing is carried out. This method is improved, by conducting the washing from the reverse side using purified effluent water and asbestos fibre suspension. By this method, the purification process can be carried out continuously, as a new filtering layer is formed.

Asbestos fibres having a thickness of 2-3 mm can be used. The purification is very efficient, e.g. when the initial content of petroleum impurities in the effluent water is 9709.3 mg/l., the filtering process reduces the impurities to 9.5 mg/l.; with an initial impurity concn. of 82.8 mg/l., the final concn. is 2.2 mg/l.

Kengerli, A.D. Bul. 38/15.10.78. 13.5.75 as 133820 (2pp 70)

AGRI= ★ D15 57452B/31 ★SU -628-095
Aq. effluent purificn. unit - has cylindrical chamber with axial perforated magnetic to apply magnetic field and oxygen simultaneously
AGRIC PROC HYDROMEC 15.01.75-SU-098204
(24.08.78) C02c-05/04

The effluent purification unit has supply and withdrawal pipelines, cylindrical treatment chamber in which is a manifold for supplying oxygen, plus a settling tank contg. electrodes installed on the pipeline carrying the processed water.

The purificn. effectiveness is increased, as a result of improving the degree of saturation by the oxygen and the intensity with which the impurities precipitate out, by making the walls of the chamber, in which the waste water is treated, from a magnetic material. The manifold supplying the oxygen is disposed along the axis of the chamber in the form of a pipe, on the surface of which, along its entire length, are radial tubes and sprayers. The tubes are displaced relative to one another at an angle and the length increases along the way in which the water moves.

Derkovskii, M.M., Barkan, I.L., Krasavin, V.N. et al. Bul. 38/15.10.78. 15.1.75 as 098204 (3pp29)

MOEN/ ★ D15 57816B/31 ★SW 7807-612
Toilet for biological decomposition - has air extractor and optional heater including layers of liq.-absorbing material
MOEN C 12.09.77-NO-003141
+P28 (09.04.79) A47k B01f-03/04 B01f-07/24 C02c-05/10

COIL/ ★ D15 57894B/31 ★US 4161-445
Desalination of warm salt water - involves cooling feed before reverse osmosis, using heat to regenerate thermal ion exchange resin
COILLET D W 23.11.77-US-854405
(17.07.79) B01d-13

Potable water is obtd. from salt water by (a) passing the feed water through a heat exchange zone where it is cooled; (b) passing the cooled stream through a reverse osmosis appts.; and (c) passing the permeate from step (b) through a thermal ion exchange desalination bed to obtain potable water. The ion exchange resin is regenerated periodically by a regenerant stream which is preheated using heat obtd. in step (a).

The process can use relatively warm feed streams e.g. sea water in middle eastern areas, without damage to semipermeable membranes. 23.11.77 as 854405 (5pp955)

COIL/ ★ D15 57895B/31 ★US 4161-446
Potable water prodn. from ground water - by combination of ion exchange and reverse osmosis
COILLET D W 23.11.77-US-854406
(17.07.79) B01d-13

Potable water is obtd. from a salt water source by (a) passing the water through a bed of thermal ion exchange resin to form potable water, (b) regenerating the resin using a preheated regenerant stream at a higher temp. than the feed. The feed prior to step (a) and the spent regenerant are passed to a heat exchanger, where the feed is heated and the regenerant is cooled. The cooled regenerant is then subjected to reverse osmosis to yield more potable water.

The process is esp. useful for treating relatively high temp. ground water rich in mineral salts. 23.11.77 as 854406 (6pp955)

DAIL D15 00436X/01 =US 4161-447
Removing radioactive cpds. from waste-water - by adding organic surfactant and subjecting to reverse osmosis
DAICEL KK (MITB) 13.06.74-JA-067520
*A97 K07 (17.07.79) *DT2454-302 B01d-13*

Waste water contg. radioactive substances from atomic energy installations is purified in a reverse osmosis process. Water is flowed under pressure in contact with a semi-permeable membrane, the radioactive substances being preferentially retained on one side of the membrane and purified water recovered on the other.

Waste water flowed past the membrane contains 0.1-1.0 wt.% of ≥ 1 water-soluble organic surfactant effective to retain $> 99\%$ of the radioactive substance in the water on one side of the membrane. Concn. of surfactant in water is ≥ 2 times the critical concn. of micelle formation of surfactant in water.

Process can be applied to all waste waters contg. radioactive substances, such as cooling waters discharged from a nuclear reactor. 18.11.74 as 524976 (6pp931)

KOBE- ★ D15 57896B/31 ★US 4161-448
Combined separator and pump with dirty phase concentrator - comprises centrifugal separator of pitot type, a jet pump and cyclone separators
KOBE INC 21.02.78-US-879811
(17.07.79) B01d-43

A centrifugal separator of the pilot type has ≥ 1 pilot tap in the rotor positioned to draw off cleansed fluid. A jet pump uses the fluid as an aspirating fluid which is energised by the rotor. Solid waste and carrier fluid from the
rotor is communicated with the jet pump as an asp
stream of the jet pump. Cyclones separate solids
heavier phase from liquid in the discharge of the j
to produce a conc. stream of solid waste and a fur
eansed stream.

Used in concentrating solid waste from a fluid.
cleansed stream may be a prod. stream or pref. i
roduced into the centrifugal separator with the inpu
stream. An agitator keeps the nozzles in the roto
clogging. 21.2.78 as 879811 (5pp1044)

FORB/ D15 46152A/26 =US
Titanate ion exchangers prepn. - by reacting titanium tetra
with base
FORBERG S 15.12.76-SW-014116
*E32 K05 (17.07.79) *DT2755-866 C01g-23*

Titanates suitable as cation exchange material are
by dissolving $TiCl_4$ in a water-free organic solven
rising alcohol and/or ketone and partially neutrali
HCl formed in the soln. and removing the chloride
base which causes pptn. A cation forming base is
with the neutralised soln. to produce a titanate pp
is sepd. from the residual soln. Pref. the base i
ethylamine.

The titanates are used for treating nuclear wa
high levels of ionising radiation. 9.12.77 as 8591

CASE/ ★ D15 57927B/31 ★US
Compsns. for staining and immobilising microorganisms i
contg. water, aq. hydrofluoric acid, and malachite green d
CASEY D O 07.02.77-US-766229 (05.10.72-US-277909)
E36 R16 (D16 E24) (17.07.79) C12k-01/04 G01n-01

Compsn. for staining microorganisms (I) to allow
by microscope and to immobilise motile (I) withou
ing the structures consists of H_2O, 0.025-0.125%
a small amt. of malachite green (II).

Compsn. simultaneously stains and immobilis
thout damaging the structure. In addn., (II) gives
ing background colour (azure in fresh H_2O; turquoi
marine H_2O) so that (I) stand out clearly. 7.2.77
(+5.2.76-US-655385) (4pp478)

D16: FERMENTATION INDUSTRY

INDK D16 02413A/02 =DS 2628-772
Composting domestic and municipal waste - by pressing into separate pieces and piling into heaps with good aeration and dewatering properties
IND WERKE KARLSRUHE AG 26.06.76-DT-628772
*(26.07.79) *DT2628-772 C05f-09*

Solid sludge and/or liq. waste is processed to compost which has a medium fine structure with 50 wt.% moisture and at least part is capable of rotting. The mixt. is compressed strongly and the resulting pressed structure is passed to a rotting surface, either in the open or in a chamber by an automatic belting system on which the pressed structure is broken up into a pourous discharge which is left to compost by storage in air. 26.6.76 as 628772(3pp 068).

KURE D16 06341A/04 =DS 2731-570
Prodn. of polysaccharide with antitumour activity - by extracting a culture of Coriolus fungus
KUREHA KAGAKU KOGYO 22.07.76-JA-087503

Process for isolation of anti-tumour polysaccharid
prises propagation of Coriolus fungi of the Basidion
class, in an aq. culture medium under submersed
ions; the culture medium is then dried at 60-150° a
residue is extracted with an aq. solvent, pref. wat
or dilute aq. alkali, and pref. in several stages; th
tract is purified by removal of substances of $M_r <$
by ultrafiltration and/or reverse osmosis. The pro
active against cancer and tumours. 13.7.77 as 731
(5pp047).

ALUM- D16 33735A/19 =DS
sodium removal from Bayer-process red mud - by treatm
ferric sulphate soln.
ALUMINIUMIPARI TERV (ALMA-) 29.10.76-HU-AU0364
*E31 M25 (26.07.79) *DT2747-436 C01d-05/06*

The sodium from red sludge, e.g. obtd. in alumina
is selectively recovered. The sludge is mixed with
of ferric sulphate or a soln. of ferrous sulphate and
ia such as Thiobacillus ferrooxidans capable of oxi

y stirred for ≥30 minutes, e.g. 30-60 minutes at
C. The sludge is adjusted to pH 4^14-4^16 and the solid
es of sodium sulphate are removed.
overy of the sodium increases the cost efficiency of
mina prodn. 21.10.77 as 747436(4pp068).

D16 62154A/35 =DS 2806-902

ganism detection by liquid and solid culture media - in
e bottles with screw connection to provide communication

FMANN-LA ROCHE AG 18.02.77-CH-002063
*6 (26.07.79) *DT2806-902 C12k-01/04*

organisms are detected in a sample by introducing
mple into a first container with a liquid nutrient med-
This container is joined to a second, containing a sol-
rient medium, to bring the surface of the solid med-
the second in contact with the contents of the first
ner. After incubation the surface of the solid nutrient
m is checked for the presence of colonies.
s is a simple and inexpensive way of keeping solid
quid nutrient media apart during the time of incuba-
nd of transport. 17.2.78 as 806902(6pp39).

★ D16 56470B/31 ★DT 2802-907

iln air conditioning system - uses glass tube heat exchanger in
with evaporator of heat pump for heat recuperation

NGS-NABERSCHULTE 24.01.78-DT-802907
4 (26.07.79) F24j-03/04

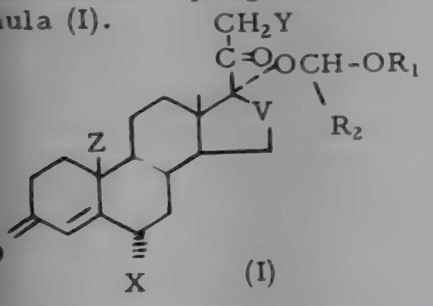
ir conditioning system for a malt kiln uses a glass
heat exchanger in series with the evaporator of a
pump to form a heat recuperation system. The air
ng through the heat exchanger is returned to it after
ng through the evaporator.
then passes through the condenser of the heat pump
he cooling unit of the apparatus driven by a diesel mot
A large amount of condensate is obtained at the heat
nger, forming part of the drying system for the kiln.
.78 as 802907 (5pp349).

★ D16 56511B/31 ★DT 2803-660

pha-alkoxy:alkoxy-pregn-4-ene-3,20-di:one derivs. - useful as
g materials for micro biological 11-beta-hydroxylation

HERING AG 25.01.78-DT-803660
1 (26.07.79) A61k-31/57 C07j-05 C07j-63

17-substd. pregn-4-ene-3,20-dione derivs. are of
ula (I).



(I)

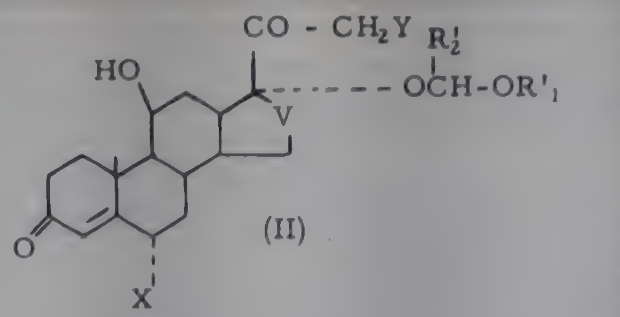
In (I), X is H, F or CH_3; Y is H, OH or 1-6C alkanoyloxy; Z is H or CH_3; V is $>CHCH_3$ $>CHOH$ or $>C{=}CH_2$; R_1 is 1-6C alkyl opt. interrputed by an O-atom; R_2 is H or 1-6C alkyl; or $R_1 + R_2$ is tet-
or pentamethylene; and Y is OH or alkanoyloxy.
I) are useful as starting materials for microbiological
-hydroxylation, in which they give better yields than
resp. 11-deoxy-17α-acyloxy steroids. (I) have pharm-
ogical activity which is often superior to that of the co
esp. 17α-hydroxy steroids and their esters.25.1.78 as
660 (21pp280).

D ★ D16 56512B/31 ★DT 2803-661

nane derivs. microbiological 11-beta-hydroxylation - using
ing materials 17 alpha-substd. by an acetal group

CHERING AG 25.01.78-DT-803661
01 (26.07.79) A61k-31/57 C07j-05 C07j-63

he prodn. of 11β-hydroxy-steroids of the pregnane ser
s substd. in the 17α-position by an acetal residue of
formula $-O-CHR_2-OR_1$ (I) (where R_1 is alkyl opt. interr
ted by an O-atom and R_2 is H or alkyl; or R_1+R_2 is tet-
or pentamethylene), a corresponding 11-deoxy-steroid
the pregnane series or its 21 ester, similarly substd.
the 17α-position, is 11β-hydroxylated with the aid of a
gus of the genus Curvularia.
Prodts. of formula (II) are new.



(II)

In (II) X is H, F, or CH_3; V = $>CH_2$, $>CHCH$ $>CHOH$ or $>C{=}CH_2$; R_1' = 1-6C alkyl opt. interrputed by an O-atom; and R_2' = H or 1-6C alkyl; or R_1' + R_2' = tetra- or pentamethylene.

(II) are intermediates for 17α-hydroxy cpds. with antiin-flammatory activity. They also themselves have anti-inflammatory activity with a favourable dissociation between desirable anti-inflammatory activity and undesirable systemic corticoid side-effects. The starting materials can be obtd. from corresponding 17α-hydroxy cpds. in almost quantitative yield, and the products can be rapidly and quantitatively converted into the 11β, 17α-dihydroxy cpds. 25.1.78 as 803661 (24pp280).

BACT- D16 83025X/45 =GB 1549-345

Neisseria gonorrhoeae filament crystals and piline GC isolation, - for compsns. for detection of antibodies, serotyping, vaccines and ummunisation

BACTEX INC 25.04.75-US-571200
*B04 +R16 (01.08.79) *BE-841-068 A61k-39/02 C07g-07*

A crystalline material is claimed, which is derived from pili of Type J_1 cultures of N. Gonorrhoeae. The material is soluble in aq. buffer of pH >8.6 and insol. at pH <7.7, and shows strong agglutination against sera contg. antibodies against pili derived from ≥1 of the following N. Gonorrhoeae strains: these being designated Pittsburgh 3-2 (ATCC 31149), CDCT-2 (ATCC 31150), CDCM-2 (ATCC 31148), Pittsburgh 4-2 (ATCC 31151), CDCC-2 (ATCC 31207), Norfolk 2-2 (ATCC 31208), and CDC 339-2 (ATCC 31206).Also claimed is a type J_2 material derived from N. Gonorrhoeae soluble in aq. buffer of pH >9.2, insol. at pH <8.7 and showing strong agglutination properties as above.

The J_1 and J_2 Gonococcal pilins, being phosphoglycoproteins are also claimed, as well as vaccine compsns. and methods for testing for presence of antibodies to N. Gonorrhoeae pili and for predetermined determinants on pili. Materials are thus useful in diagnosis of the disease etc. 23.4.76 as 016688 (26pp963)

COUE D16 81450Y/46 =GB 1549-464

Uniform liquid coated microdroplets prodn. - by continuous disturbance esp. vibration of two liquid stream emerging from nozzle

COULTER ELECTRONICS INC 22.04.76-US-679241
*A97 J04 K05 (01.08.79) *DT2717-097 +B01j-02/06*

Uniformly sized particles are produced from core and sheath liquids, e.g. of polystyrene contg. a dye, by dispersing a particle-forming material into one or both liqs. and introducing the core liq. into a moving body of sheath liq.A liq. jet of the liquids is formed and periodically disturbed to form uniform droplets contg. constant amts. of the components. The jet is pref. disturbed transversely at constant rate. 14.4.77 as 015637 (7pp1358)

TUFT D16 28612A/15 #GB 1549-590

Purificn. of carboxy:peptidase G-1 - by contacting protein mixt. with carboxyalkyl cellulose support material then eluting with amino acid e.g. glutamate

TUFTS COLLEGE TRUSTEES 18.06.76-US-697422 (13.03.78-GB-009886)
*A97 B04 (A11) (01.08.79) *US4078-972 C07g-07*

Purified carboxypeptidase G_1 (I) is obtd. from a protein mixt. by (a) passing the mixt. into contact with a support material having active gps. under pH conditions such that (I) is selectively complexed and bonded to the support material in preference to the other proteins in the mixt.; (b) displacing the bound (I) from the support material by passing an eluant, which has a greater affinity for the bound (I) than the bound (I) has for the support material, into contact with the protein-bound support material; and (c) recovering a mixt. of the eluant and (I). Esp. the support material is CMC and the pH during steps (a) and (b) is maintained at 6.0.

(I) breaks down methotrexate (used in the treatment of certain human malignancies) and serum folates, and is used e.g. to stop the work of methotresate in human tissue. 13.3.78 as 009886 (6pp990)

RAYM/ D16 88248A/49 =GB 1549-597
Electromagnetic irradiation to accelerate maturing of food prod. - esp. alcoholic drinks such as wine and whisky
RAYMOND J 01.03.77-FR-006001
*(01.08.79) *FR2382-200 C12g-01 +A23l-01/21*

The acceleration of the natural evolution of a prod., partic. for alimentary use, comprises applying electromagnetic radiation. A natural frequency of molecular resonance or one of its harmonics is first determined within 3000-15000 MHz. The prod. is then subjected to electromagnetic radiation having a frequency close to this natural frequency or its harmonic, with an intensity >1 milliwatt per cm.^{2}

The process does not appreciably modify the natural process. 28.2.78 as 007881 (2pp393)

STEI- D16 24160B/13 =GB 1549-605
Hop treatment and humulone stabilisation for brewing - comprises isomerisation using metal oxide, isomer reduction using metal hydride and opt. pelletising
STEINER H LTD 08.09.77-US-831479 (01.02.77-US-764600)
*(01.08.79) *DT2833-588 C12c-03/04*

Hops are stabilised against deterioration by contacting the hops or hop extract contg. α acids with $\geqslant 1$ metallic oxides in which the metal is divalent and suitable for use in food prods., so as to allow isomerisation of the α acids to be completed.

Pref. the hops or extract are in powder form and the oxide is CaO and/or MgO. The oxide(s) is pref. present in amt. 0.5-3 wt.% of the hops powder.

An $\geqslant 80\%$ conversion of α acids to isomerised prods. occurs. 1.2.78 as 004095 (8pp393)

MOJO ★ D16 56671B/31 ★GB 2012-608
Liq. deaerating appts., esp. for beer making - comprises deoxygenating unit modules and carbon di:oxide metering unit for contacting liq. droplets
MOJONNIER BROS CO 23.01.78-US-871539
(01.08.79) B01d-19

A modular gas-exchange deoxygenating column for removing oxygen-contg. air from a fluid comprises a deoxygenating unit mounted on a liq. exhaust pump bottom unit. A foraminous-bottomed retainer is provided for temporarily retaining a liq. which forms a gas barrier. A basin is mounted below the retainer baffle sheet and stack of the retainer and forms a second gas barrier.

Liq. falling from the retainer and basin are brought into intimate contact with upwardly flowing gas. A metering device introduces CO_2 gas into the column to provide complete exchange of CO_2 for the oxygen-contg. air dissolved in the liq.

Used for removing oxygen from water, esp. in the mfg. and brewing of beer. Construction of the modular column is relatively easy and quick. Thorough mixing of CO_2 with the treated water thoroughly drives out out and oxygen dissolved in the water. The final oxygen content achieved is of the order of one or two pts. per billion pts of water. 20.11.78 as 045210 (7pp1044)

SAOC ★ D16 56803B/31 ★J5 4076-817
Antitumour drug - contains cell wall of Clostridium genus or fungi
SANRAKU OCEAN 26.11.77-JA-141804
B04 (19.06.79) A61k-35/74

Antitumour drug which contains cell wall of Clostridium genus of fungi. Examples of Clostridium genus of fungi are Clostridium saccharoperbutylacetonicum N 1-4 ATCC 27022, Clostridium acetobutylicum 314 IFO 3346 (or ATCC 824) and Clostridium butyricum IFO 3315 (or ATCC 19398).

The cell wall has appearance of white powder with decomposition $> 300°C$. The analysis is C, 42.34% ; H, 6.60%; N, 8.29% ; ash, 1.43% ; total P, 1.25%. 26.11.77 as 141804 (4pp69).

TANB ★ D16 56819B/31 ★J5 4
Aspergillus awamori TT-810 - used for producing malt culturing in a medium
TOKYO TANABE KK 02.12.77-JA-143990
(19.06.79) C12d-13/10 C12k-01

Aspergillus awamori TT 810 is new. It is used for producing maltase by culturing in culture medium ar separating out maltase from the culture mixt..

In an example, wheat bran (20 g) and water (20 m were put into a 500 ml volume of Erlenmeyer's flask sterilised with steam at 120°C for 20 minutes, spore suspension of Aspergillus awamori TT 810, previou cultured on potate dextrose agar-agar streak culture ium at 30°C for seven days, was inoculated and cultu at 30°C for five days. Culture mixt. contained in ten flasks were joined into one, 2 L of water was added blended well and extracted at 5°C for a night. Maltas potency of the filtrate was 128 units/ml (1280 units/g wheat bran). Equal volume of acetone was added to 1 of the filtrate at $< 10°C$, ppte. was recovered by ce rifugal sepn. dried under reduced pressure to give 1 g of crude maltase powder. Maltase potency per 1 m the powder was 15.6 units. 2.12.77 as 143990 (7pp69

MITK ★ D16 56820B/31 ★J5 40
Prepn. of frozen material contg. luminous bacteria - by fr luminous bacteria in aq. soln. contg. poly:hydric alcol aminoacid
MITSUI TOATSU CHEM INC 28.11.77-JA-141684
(19.06.79) C12k-01/08

The method comprises freezing luminous bacteria in aq. soln. contg. polyhydric alcohol or amino acid. The luminous bacteria can be stored for a long period without decrease in luminous activity. The polyhydri alcohol includes erythritol, glucose, glycerin, sucros sorbitol, etc.. The amino acid includes threonin etc. In an example luminous bacteria, such as Photobacter phosphorium, is cultivated in a medium clntg. meat e tract, polypeptone, glycerin , table salt, etc. of pH 6 at 5 - 35°C at 10 - 20°C for 12 - 48 hours under aero conditions, and then the cultured cell bodies are colle and suspended in an aq. soln. contg. polyhydric alcoh or amino acid, followed by freezing. The amt. of ami acid is 0.1 - 5% and that of polyhydric alcohol is 1 - 2 28.11.77 as 141684 (2pp22).

SUNG- ★ D16 56821B/31 ★J5 407
Cultivation of Chlorella - using distilled residue of alc beverage prodn. from grain, waste fermentation material carbon di:oxide, under light
SUN GRAIN KK 01.12.77-JA-144710
(19.06.79) C02c-01/02 C12k-01

Chlorella is cultivated in a culture medium which com ses waste carbon dioxide obtained in preparation of di ed alcoholic beverage using grain as starting materia distilled residue and waste liq. of factory under radia of sunlight.

In an example, in a vessel are charged 20 litres of illed residue of whisky, 10 litres of fractionation resi of whisky, 10 litres of waste liq. from factory which produced using microorganisms, 0.04 kg of distilled centrate thereof, 6 g ammonium nitrate, and sodium droxide to adjust pH to 6.5. Chlorella is cultivated in this vessel under introduction of air contg. CO_2 at a r of 8 litres/min. and under radiation of fluorescent lig at 30°C for 48 hours.

Chlorella can thus be obtd. in high yield using wast materials as culture medium. 1.12.77 as 144710 (3p

AJIN ★ D16 56822B/31 ★J5 4076
Fixing enzymes - by blending sorbitan fatty acid ester hydrocarbon oil and emulsifying prod. with aq. soln. of enzyme
AJINOMOTO KK 02.12.77-JA-144821
B04 (19.06.79) C07g-07/02

Sorbitan fatty acid ester is added to hydrocarbon oil, f owed by blending, and to the oil phase of the resultant added aq. soln. of enzyme, followed by agitation to give an enzyme-contg. emulsion. By this method, enzy can be fixed at high yield.

example, 1.0 g fluidising paraffin is mixed with
f sorbitan oleic acid monoester, followed by
n with the use of magnetic stirrer. To this soln.
vise added 1. 0 ml of aminoacylase aq. soln.,
l by agitation for 10 minutes. To the resulting
n is added 0.3 g acetyl-D, L-methionine and agit-
conducted at 25°C for 20 minutes to allow an en-
eaction to proceed. Ten ml of water is added to the
nt and agitation is conducted at 700 rpm for 1.0
nd the produced L-methionine is extracted. Yield
ethionine is 50%, and fixing rate of the enzyme is
12.77 as 144821 (3pp22).

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r D16 56823B/31 ★J5 4076-891
y of alpha-1,6-glucosidase from fermentation broth - by
phosphate, carbonate or organic acid salt, then adsorbing
minium oxide
NCY OF IND SCI TECH 28.11.77-JA-142462
9.06.79) C07g-07/02 C12d-13/10

od for selective adsorption of α-1, 6-glucosidase
luminium oxide (II) from (A) culture medium(III),
h microorganism, belonging to Bacillus and having
to produce (I) and β-amylase(IV), has been cultur-
rom (B) a soln.(V) contg. crude (I) and (IV) comp-
(1) addn. of phosphate, carbonate or salt of organ-
to (III) or (V) and then (2) treatment of (III) or (V)
I).
nd (IV) are sepd. effectively and inexpensively.
orbed in (II) can be collected by (i) collecting (II)
trifugation, (ii) washing (II) with water and (iii) ex-
g (I) with solution contg. phosphate, potassium ch-
sodium chloride or sodium sulphate. As (II),
ted alumina is usually used and a small amt. of sil-
xide, sodium oxide, magnesium oxide, etc. may be
ned in(II). Examples of salts of organic acid are
n or potassium citrate, gluconate, oxalate, and
ate. Conc. of phosphate and carbonate and conc. of
organic acid in (III) or (B) are 0.05-0.5 mol/l,
0.1-0.2 mol/l) and 0.01-0.1 mol/l, respectively.
.77 as 142462 (6pp42).

★ D16 56824B/31 ★J5 4076-892
n of lipase - by binding with ion exchanger having
hobic gps.
ENCY OF IND SCI TECH 29.11.77-JA-143037
(19.06.79) C07g-07/02

on of lipase, comprises binding with ion exchanger
hydrophobic groups, by ionic bond and hydrophobic

ase can be fixed more stably, depending on linkage
oth of ionic bond and hydrophobic bond. The fixed
does not dissociate from the support according to
ange and the support can be reused repeatingly.
drophilic radicals, are aliphatic, aromatic and
lic hydrocarbon. Ion exchange radicals are amino,
phenyl, and guanidoalkyl, 29.11.77 as 143037 (4pp).

★ D16 56825B/31 ★J5 4076-893
on of cholesterol oxidase from culture - by adding cholesterol
rier to absorb oxidase, washing carrier and eluting with
tant
NYU PHARM CO LTD 02.12.77-JA-143829
J04 (19.06.79) C07g-07/02 C12d-13

lation of cholesterol oxidase from cultured broth
ich cholesterol oxidase producible microorganism
een incubated, cholesterol is added to the culture
um as carrier to absorb the oxidase, the carrier
ed and the oxidase eluted with surfactant.
holesterol oxidase is useful for determn. of cholest-
concn. in blood. Cholesterol oxidase is produced by
ating cholesterol producible microorganism, (e.g.
tomyces violescence or Brevibacterium sterolicum)
nutrient culture medium. Cholesterol is water insol.
when water is added to the cholesterol, it floats on
r surface. 2.12.77 as 143829 (3pp68).

KYOW ★ D16 56826B/31 ★J5 4076-894
L-Malic acid prodn. - by treating aq. fumarate soln. with mycelium of microorganism, or with prod. obtd. from mycelium
KYOWA FERMENTATION KK 02.12.77-JA-144001
E17 (19.06.79) C12d-01/02

Prodn. of L-malic acid (I), comprises treating an aq. fumarate(II) soln. with mycelium, or prod.(III) obtd. by treating mycelium, of a microbial, which belongs to Candida, Kloeckera, Hansenula, Triconopsis, Saccharomyces, Endomycopsis, Wickerhamia, Schwanniomyces, Sporobolomyces, Cryptococcus, Debaryomyces, Nematospora, Pichia, Rhodotorula and Torulopsis and has fumarase activity.

(I) is produced in high yield and all faults of other known methods are overcome.

The concn. of (II) in the soln. is pref. ⩽ 1.4 mol/l, and the addition of 0.05-1 g of magnesium and ammonium fumarates is pref. The treatment is at 20-45°C and pH 6.0-10.0. Examples of (III) are dried mycelium, freeze-dried mycelium and fixed mycelium. 2.12.77 as 144001 (4pp42).

TAKE ★ D16 56827B/31 ★J5 4076-895
Antibiotic C-15003P-2 prodn. - by culturing strain of genus Nocardia in medium contg. propionyl coenzyme/A, propionic acid or analogue of leucine or valine
TAKEDA CHEMICAL IND KK 25.11.77-JA-141837
B04 (19.06.79) C12d-09 C12d-13

Method comprises incubating antibiotics C-15003 P-2 producible strain, belonging to genus of Nocardia, in culture medium including ⩾ 1 of precursor of propionyl CoA, propionic acid, analogue of leucine or analogue of valine.

The antibiotics C-15003P-2 is anti-cancer material. It is prepd. in increased yield. 25.11.77 as 141837 (10pp68).

SAOC ★ D16 56828B/31 ★J5 4076-896
Anticancer polysaccharide C-45 prodn. - by culturing microorganism of genus Clostridium in medium contg. carbon, nitrogen inorganic salt and micronutrient source
SANRAKU OCEAN 26.11.77-JA-141803
B04 (19.06.79) A61k-31/71 C08b-37 C12d-09/20

Insol. polysaccharide C-45 producible microorganism, belonging to genus of Clostridium is cultured in a culture medium including C source, N source, inorganic salt and micronutrient source, at 28 - 37°C., at pH 6 - 8 to accumulate the C-45 in the form of insoluble precipitate.

Pref. the insol. ppte. is isolated, dissolved in DMSO, to which ethanol is added to precipitate the C-45, and dialysed with water for refining. 26.11.77 as 141803 (5pp68).

SAKA/ ★ D16 56829B/31 ★J5 4076-897
Antitumour cpd. prodn. which coagulates cancer cells - by cultivating certain Streptomyces strains
SAKAKIDA K 28.11.77-JA-141518
B04 (19.06.79) A61k-35/70 C12d-13

Prodn. of antitumour substance comprises incubating a strain of Streptomyces No. 111, Streptomyces No.118 and Streptomyces No. 121 in liquid culture medium; adding lower alcohol or acetone to filtrate of the cultured broth to form ppte.; and if desired, refining the ppte. to isolate the coagulable substance of cancer cell.

The antitumour substance of this invention possesses coagulability on cancer cell of abdominal dropsy type cancer. Microorganisms are deposited in Bacterial Industrial Research Institute in Agency of Industrial & Technology. Accepted numbers of strains of this invention are No. 4286 for No. 111, No. 4287 for No. 118, and No. 4288 for No.121. 28.11.77 as 141518 (3pp68).

DNIN ★ D16 56830B/31 ★J5 4076-898
Monascus pigment prodn. - by culturing Monascus microbe on solid culture medium and extracting pigment without drying solid koji obtd.
DAINIPPON INK CHEM KK (DNII) 29.11.77-JA-142140
(19.06.79) C09b-61 C12d-13

Prodn. of Monascus pigment(I), comprises (1) prodn.

of solid koji (II) by culturing microbial(III) belonging to Monascus and able to produce pigment(IV), on solid culture medium, and (2) extrn.of pigment without drying the solid koji.

Part of (IV) is adsorbed as raw material of (II), such as rice, wheat flour, bread, etc., and efficiency of (IV)-extrn.is reduced, when (II) is dried before extrn.Extrn-efficiency is increased. As solvent for extrn., ethanol is pref. and water content in the mixture of (II), ethanol and, opt. water should be adjusted to 5-50 v/v %, e.g. (10-25 v/v %). Pref. examples of (III) are Monascus purpreus and M. anka. 29.11.77 as 142140 (3pp42).

AJIN ★ D16 57333B/31 ★J7 9018-351
Cultivation of basidiomycetes on medium contg. bacillus cell - using microorganism of genus Pleurotus, Lyophyllum, Lepista, Flammulina, Pholiota, Auricularia or Favolus
AJINOMOTO KK 21.03.72-JA-028436
P13 (06.07.79) A01g-01/04 A23l-01/23 C12d-13/10 C12k-01

Cultivation of basidiomycetes comprises cultivation of a microorganism of the genus Pleurotus, Lyophyllum, Lepista, Flammulina, Pholiota, Auricularia or Favolus which dissolves cell of micoorganism on a medium contg. cell of bacillus. 21.3.72 as 028436 C12k-1/00 A01g-1/04, A231-1/23 C12d-13/10 (6.7.79) AJINOMOTO KK (3pp22) (J48096340)

AGEN ★ D16 57334B/31 ★J7 9018-353
Fermentative prepn. of alpha-galactosidase - by cultivation of suitable microorganism of Genus Circinella or Mucor
AGENCY OF IND SCI TECH 00.00.72-JA-099587 (13.08.71-JA-061458)
(06.07.79) C12d-13/10

Prepn. of a-galactosidase comprises cultivation of miroorganism belonging to genus Circinella or Mucor on a culture medium and recovering prod. 13.8.71 as 99587/72 Div. ex 61458/71 C12d-13/00 (6.7.79) AGENCY OF IND SCI TECH (3pp22)(J48085786)

SAOC D16 85876X/46 =J7 9018-354
Antibiotics from novel Streptomyces strain - the prod. being 7-(5-amino 5-carboxyvaleramide) 3 carbamoyloxymethyl 7-methoxy 3-cephem-4 carboxylic acid
SANRAKU OCEAN (AJIN) 18.03.75-JA-033454
*B02 (06.07.79) *J51110-097 C12d-09/20*

Novel Streptomyces P6621 Strain (Fermentation Research Institute No. 2804) is aerobically incubated to accumulate 7-(amino-5-carboxyvaleramide)-3-carbamyloxymethyl-7-methoxy-3-cephem-4-carboxylic acid in the culture soln. Though the compound obtained itself is valuable as an atibiotic, it is also useful as a raw material for synthesis of 7-methoxy-3-cephem-4-carboxylic acid skeleton for useful derivs. 18.3.75 as 033454 C12d-9/20 (6.7.79) SANRAKU-OCEAN KK (8pp)(J51110097)

TOXN D16 58971X/31 =J7 9018-356
Removing dregs in sake prodn - by passing brewed sake through hollow system having ultrafiltration ability and activated carbon column
TOYO BREWING KK 22.11.74-JA-134534
*(06.07.79) *J51070-891 C12h-01/04*

In removing dregs of sake, brewed sake is passed through a hollow system having ultrafiltration ability. This process is accompanied by decolouration process with granular activated carbon. A dregs-settling agent and protein denaturing agent which form industrial waste matl. are not needed.

Time and tank for standing can be saved by use of a hollow internal or external pressure cartridge having ultrafiltration ability and a granular activated carbon filled column. 22.11.74 as 134534 C12h-1/04 (6.7.79) TOYO JOZO (ASAH) (16pp)(J51070891)

GOTO/ D16 44614X/24 =J7 9018-357
Miso without miso odour - using enzyme of Aspergillus oryzae or water treatment to remove odour before ageing
GOTO H 18.10.74-JA-120150
*(06.07.79) *J51048-497 A23l-01/20*

A mixture of miso and a pasty substance obtained by digestion and decomposition of (1) soybean milk undergone deodourising treatment in the presence of water or (2)
water-contg. ground pasty substance prepared fro
ed soy bean with enzyme group produced by Asper
oryaze is submitted to ageing at a low temp.
Miso without miso odour can be prepared and t
products adapted to foreigners tastes and products
ble for preparation of seasoned foods can be obtai
18.10.74 as 120150 A231-1/205 (6.7.79) GOTO H(
(J51048497)

SQUI D16 32711F/00 =N
Antibiotics - umbrinomycin-a and-b and diumycin-a and-b
SQUIBB E R & SONS INC 15.11.67-US-693038 (27.
604964)
*B04 (16.07.79) *BE-708-601 C12d-09/14*

Antibotics are mfrd. using the species Streptomy
brines - ATCC 15972.
The organism is grown and from the capture (a
antibiotic wmbrinomycine is isolated, consisting o
ponent A and B. At least 1 or both of the compone
separated and opt. converted to the ester, derived
hydrocarbon carboxylic acid of 12 C, or (b) the
tic diumycine is isolated, consisting of component
At least 1 or both of the components are separated
converted to a salt.
The antibiotic has a broad-spectrum of activity
Green Positive bacteria. 27.12.67 as 017696(15pp

ADAM- ★ D16 B/31 ★OE
Low alcohol content beer mfr.
ADAMBRAU GMBH 22.12.76-OE-009561
(15.07.79) C12c-09

STRO- ★ D16 B/31 ★OE
Packing and method for treating biologically decom
material
ANSTALT STROMUNGSMA 13.12.77-OE-008875
(15.07.79) C05f-09

INLE- ★ D16 B/31 ★RU
Neutralising cellulosic hydrolysate with nutrient magnesi
addn. - in fermentation processes, esp. yeast prodn., e.
dolomite
IND LEMNULUI 07.08.75-RU-083110
F09 (30.08.78) A23k-01/12

NICO- ★ D16 B/31 ★RU
Dehydrogenase lactate determination in alantoid and
culture I - using aq. NAD soln., by incubati
spectrophotometric NADH determination
NICOLAU S S INST 11.11.75-RU-083874
B04 J04 R16 (04.08.78) G01n-33/16

NICO- ★ D16 B/31 ★RU
Fixing cellular cultures in immunofluorescence for virolog
UV irradiation emitted by mercury vapour lamp
NICOLAU S S INST 16.03.74-RU-078062
(30.01.79) C12k-09

VNII= ★ D16 57412B/31 ★SU -
Regeneration of active carbon used for purificn. of alcohol
by treatment with potassium permanganate soln. follo
steaming, used in alcoholic drinks industry
VNIIPRB 08.01.74-SU-985104
E36 (05.03.79) B01d-15/06 C12h-01/04

Regeneration of active carbon, used e.g. for the pu
ion of aqueous-alcoholic solns. in the alcoholic indu
is carried out by treatment with a reactive agent, f
by steaming. This process is improved by using as
-tive agent an aq. $KMnO_4$ soln., pref. contg. 0.3-0
% $KMnO_4$. By this method, the regeneration degree
creased, and carbon losses are diminished.
Yarovenko, V.L., Skripnik, K.I., Burachevskii, I.
Bul. 9/5.3.79. 8.1.74 as 985104 (3pp70)

SHAD/ ★ D16 57416B/31 ★SU -
Air saturation chamber for lac fermentation solution - has th
pipes on end of gas intake pipe to reduce chamber height
SHADRIN E YA 23.11.76-SU-423834
P13 (D13) (30.06.78) A01j-11/04

The chamber has a gas pipe which has a pressure r
tor and air distribution unit. The regulator has a va

ond pipe and indicator. Surplus pressure is controll-
valves on the pipe and a dial. The gas pipe is plugg-
a cover.
in E. Ya. Bul. 30/15. 8. 78 23. 1. 76 as 423834(3pp118)

= ★ D16 57471B/31 ★SU -628-114
ete mix additive for improving strength and frost resistance -
ns sulphite-yeast fermentation resin and sodium hydroxide
ARK CAR-ROAD INST 08.12.76-SU-427688
3 L02 (22.08.78) C04b-13/24
complex additive comprises (by wt.): 32.26-33.33
ite-yeast alcoholic fermentation residues (I), 3.23-
1% of a resin (II) neutralised by air take-up and 55.55
51% NaOH (III).
he additive improves the cement strength and frost
tance.
) is pref. used as a 10% aq. soln. of density 1.043;
s pref. used as 1% aq. soln. of density 1.003; and (III)
ef. used as a 10% aq. soln. of density 1.109.
hko, I.M., Sviridenko, N.M., Kazakov, V.N. Bul.
5.10.78.8.12.76 as 427688 (4pp314)

★ D16 57525B/31 ★SU -628-169
oorganisms culture unit - has a rhomboidal blade with apex
es for drawing and ejecting fluid
ELORUSS KIROV TECHN INS 03.01.77-SU-440410
(13.09.78) C12b-01/10
nsified culturing of microorganisms is obtained by
ating multizone mixing with sharply defined inner and
r circulation contours. The holes in the rhomboid
e are at the corner apexes, and the top hole is in line
the shaft axis and above the fluid level. The top hole
ks in the foam, while the symmetrical bottom flare
ws in fluid and is fitted below the aerator.
The rotation of the blades give rise to a centrifugal for-
ejecting fluid from the hollow blades. The resulting
tial vacuum draws in fluid through the bottom hole form
g four circulation contours, the flare enhancing the pro
ss.
tnikov, I.I., Verzhbitskii, L.L., Prudnikov, F.V.
l. Bul. 38/15.10.78. 3.1.77 as 440410 (2pp89)

★ D16 57526B/31 ★SU -628-170
oorganisms culture unit - includes top spray trap with two
centric vessels and chamber surrounding outlet
ELORUSS KIROV TECHN INS 10.01.77-SU-443922
(13.09.78) C12b-01/10
reased yield of microorganisms culture unit has the
ay trap in the upper section of the tank. The trap com-
ses two concentric vessels and a chamber that surrounds
outlet of the outer vessel. The chamber is connected
he bubbler, while the outlet of the outer vessel carries
ved blades.
tekhovich, P.E., Bortnikov, I.I., Prudnikov, F.V.
al. Bul. 38/15.10.78. 10.1.77 as 443922 Add to 458573
p89)

N= ★ D16 57527B/31 ★SU -628-171
teria controlled depth inoculator - has shiftable stroke limiter
h triangular frame and a curved needle
IVANOVO MEDICINE IN 04.04.77-SU-469809
(13.09.78) C12k-01/10
nplified and faster inoculation of bacteria for laboratory
search using a broth or agar in several Petri dishes is
tained by controlled depth of inoculation and sterility.
e inoculator has a movable stroke limiter in the form of
triangular frame with a flange while the needle is curved.
The inoculation is preceded by moving the limiter to the
ee end of the needle holder, and the needle is sterilised
a burner flame. Then a droplet of culture broth is plac-
on the needle, the needle curvature facilitating the pick
p. The limiter is shifted to the stroke setting nuts, and
dov, V.I. Bul. 38/15.10.78. 4.4.77 as 469809 (2pp89)

HE- D16 79984W/48 #SU -628-801
e analysis of microparticles e.g. cells - by generating secondary
lse from primary detection pulse
LAHEY CLINIC FOUND 28.05.74-US-473498 (10.11.75-SU-
189961)
*+P31 R11 R16 R28 (04.09.78) *US3919-050 A61b-05/14 G01n-*
15

Reliability of detecting and counting particles in medical
work is improved with series connected pulse train gener
tor and distributor for amplitude generation. The input
of the generator is connected to output of amplifier and th
distributor feeds a multi-channel analyser.

The generator comprises a Schmitt trigger and a block
ing oscillator while the distributor features parallel amplitude discriminators and an anticoincidence gate. The particles pass the capillary transducer modulating th
current, the amplitude of pulses being proportional to the size of particles.
Kerby W.A. Bul. 38/15.10.78 10.11.75 as 189961 (2pp89)

MOCL= ★ D16 57648B/31 ★SU -628-900
Bone fragments adhesion accelerator - in the form of proteolytic
ferment injected at the joint
MOSC CLINIC RES INS 13.05.77-SU-499003
B04 P31 (21.09.78) A61b-17

Faster union of bone fragments is ensured by injection of proteolytic ferment. The adhesion of fragments during the stabilisation period ensures formation of bone tissue already after 27 days, as shown by X-rays.

Spongy structure is observable after 49 days, and complete consolidation is achieved in 4 months instead of 6.5 months when using conventional therapy.
Zorya V.I., and Fishchenko P.Ya., Bul. 39/25.10.78 13.5.77 as 499003 (2pp89)

MOSU ★ D16 57653B/31 ★SU -628-920
Prevention of single cell organism adaptation to pharmaceuticals
by culturing in medium contg. valine or phenylalanine and ascorbic
acid modifiers
MOSCOW LOMONOSOV UNIV 05.08.75-SU-160730
B04 (21.09.78) A61k-29

The resistance of single cell, organisms to the action of medicinal prepns. is reduced by culturing in the presence of a modifying agent. The adaptation of Crithidia oneopalt
culture to medicinals is prevented by growing it in culture medium contg. 0.005-0.01 wt.% amino acid (pref. valine or β-phenyl-β-alanine) and 0.001-0.005 wt.% ascorbic acid at 22-25°C.
Sukhareva-Nemakova N.N., Titova T.S., Silaev A.B., Bul. 39/25.10.78 5.8.75 as 160730 (2pp938)

AKSE/ ★ D16 57660B/31 ★SU -628-939
Beer distilling column automatic control - with improvement in
quality of rectified alcohol by correcting the withdrawal by temp.
and beer distillate parameters
AKSELROD L A 23.05.77-SU-495351
(08.09.78) B01d-03/42 C12f-01/02

In automatic control of three-column beer-distillation installation, according to Parent Cert. No. 518222 the extraction of the rectified alcohol is stabilised, the flow-rate of the intermediate fractionation prod. is regulated according to the temp. in the control zone of the rectifying columns, the flow-rate of the beer distillate is regulated depending on the level of the intermediate prod., and the flow rate of the beer is controlled according to the level of the beer distillate.

Now the quality of the rectified alcohol is improved by correcting the withdrawal depending on the change in level of the beer distillate and the temp. in the control zone of the rectifying columns relative to the preset values.
Akselrod L.A., Kogan L.M., Mandelshtein M.L., Bul. 39/25.10.78 23.5.77 as 495351 Add to 518222 (2pp29)

KIFO= ★ D16 57661B/31 ★SU -628-940
Extractor for raw materials of vegetable origin - has perforated
plates on vertical reciprocating rod surrounded by close vessels for
improved filtration used in alcoholic drink etc. mfr.
KIEV FOOD IND INST 01.08.76-SU-389232
(08.09.78) B01d-11/02

Extraction device, for treatment of vegetable raw materials used in the liqueur-vodka industry, comprising a column contg. perforated plates one above the other fastened to a rod connected to a drive which ensures an upwards/downwards reciprocating movement.

The extraction process is intensified and the consumption of energy is reduced by creating alternating filtration zones, which allows the extracting agent to pass through a constantly regenerated layer of raw material. This is done by installing a cylinder coaxially inside the column and fitting vessels one under the other firmly inside the cylinder. The number corresponds to the number of plates. Each plate is thus placed inside a vessel at the level of one of its edges with a gap smaller than the size of the perforations in the plate. Where the density of the raw material is less than that of the extractant the plate is located at the upper level of the vessel; if it is greater, the plate is mounted at the lower edge. So that the raw material can move along the column, the plates are made conical.

Vasilik I.N., Loboda P.P., Stratienko O.V., et al. Bul. 39/25.9.78 1.8.76 as 389232 (3pp29)

UFAR= ★ D16 57755B/31 ★SU -629-204

Nitrogen-fixing Rhizobium meliloti strain 441 - used in bacterial fertiliser prodn. to increase lucerne crop yield

UKR FARMING RES 21.02.77-SU-454558

C04 (11.09.78) C05f-11/08

New bacteria strain Rhizobium meliloti 441, living in nodules on lucerne roots, is highly active as a nitrogen-fixing agent (13% more than the known strain Rhizobium meliloti 421a); and promotes prodn. of vitamins of the B gp.

The strain is suitable for incorporation in the known bacterial fertiliser nitragin.

Zaremba V.P., Malinskaya S.M., Dubovenko E.V. Bul. 39/25.10.78 21.2.77 as 454558 (2pp70)

NCAU= ★ D16 57776B/31 ★SU -629-225

Microorganisms culture unit - has hollow helical tips with angled flat nozzles ejecting air

N CAUCASUS PROTEIN (KDPO=) 05.05.76-SU-357595

(30.08.78) C12b-01/10

Improved air distribution in the microorganisms culture unit and intensified mass exchange between air and culture fluid are ensured by flat nozzles. The latter are made by holes in the helical attachments. The outside edges of the holes are set at an angle of 5-10° with respect to the surface of the helical attachment.

The culture fluid is picked up by the stirrer and forced towards the hollow helical attachments whose holes eject air. This ensures saturation of fluid with air required for the yeast.

Anoshin I.M., Miroshnichenko I.I., and Nikolaev V.A. Bul. 39/25.10.78 5.5.76 as 357595 (3pp89)

MOSK ★ D16 57777B/31 ★SU -629-226

Microorganisms culture unit - has uniformly distributed circulation pipes with top funnels beneath headers

MOSCOW CHEM EQUIP INST 02.09.76-SU-400971

(30.08.78) C12b-01/10

Intensified foam breaking ensuring higher efficiency of the microorganisms culture unit is due to circulation pipes uniformly distributed over the cross section of the tank. The pipes carry funnels at the top, and the foam breaker is made up of headers mounted over each of the funnels.

The foam is produced during aeration of the medium, and the vertical circulation is controlled by the airlift set between the circulation pipes and the down-flow of fluid in the pipes.

Chekhov O.S., Vetoshkin A.G., Kutepov A.M. et al. Bul. 39/25.10.78 2.9.76 as 400971 (4pp89)

USPI= ★ D16 57778B/31 ★SU -629-227

Microorganisms culture unit - has a perforated helical insert on shaft with upwardly increasing diameter and holes size

UKR SPIRITS LIQUOR 01.04.77-SU-470149

(30.08.78) C12b-01/10

Intensified growth of microorganisms is achieved by using the insert fastened to the shaft having dia. of successive turns of flight and its holes increasing in upward direction. The perimeter of the perforated helical insert features a downward serrated flange.

The aeration air fed below the fluid surface gives rise to a buoyant force decomposed by the helical surface. The horizontal component of the force turns the shaft and thus the culture liquid is subjected to rotational movement. The interaction with air bubbles along the vertical path results in intensive mixing and provides a high-effic mass exchange.

Osovik M.P., Litvinenko N.V., Osovik A.N. et al. Bul. 39/25.10.78 1.4.77 as 470149 (3pp89)

BEKI ★ D16 57779B/31 ★SU -

Microbiology industry foam breaker - has frusto/conical sep chamber with inner flange and by/pass channels

BELORUSS KIROV TECHN INS 21.04.77-SU-481908

(30.08.78) C12b-01/18

Reduced carry-over of splash droplets and enhanced draining from the foam breaker are ensured by the f conical sepn. chamber. An inner flange diverts gas and the by-pass channels are set in the lower part o chamber walls.

The foam reaches the chamber through the botton where the larger bubbles are broken up at the cone p phery. The separated fluid is ejected through the ho while the finely dispersed foam passes between the t where it is broken up. The gas enters the sepn. cha for eliminating the fine droplets as a film flowing do the wall.

Verzhbitskaya L.L., Liplyanin P.K., Bul. 39/25.1 21.4.77 as 481908 Add to 510505 (2pp89)

LVEP= ★ D16 57780B/31 ★SU -6

High yield di:hydroxy-benzoyl-serine prodn. - by culturing ba Klebsiella pneumoniae strain, used in microbiological industr

LVOV EPIDEMIOLOGY 19.01.77-SU-447179

B05 (28.08.78) C12d-13

2,3-Dihydroxybenzoylserine, which is used in the mi biological inds. as a biologically active agent, can b produced in increased yields by cultivating Klebsiell pneumoniae Sp. DBS strain No. 1015 (instead of Esch ichia coli used in the known process) in a nutrient m contg. (in g/l) NH_4Cl 0.9-1.2, Na_2HPO_4 2.5-3.5, KH 1.0-2.0, $MgSO_4$ 0.08-0.12, $CuSO_4$ 0.014-0.016, and saccharose 4.0-6.0. The yield of 2,3-dihydroxyben serine is 0.3-0.4 g/l in 10-18h.

Nazaruk M.I., and Sibirnyi V.A., Bul. 39/25.10.78 19.1.77 as 447179 (2pp70)

ALES/ ★ D16 57781B/31 ★SU -6

Wine prodn. waste mash distillation column control - by corr the temp. of column top as a function of alcohol concn. in the f

ALESHCHENKO V I 16.02.76-SU-326889

(29.08.78) C12f-01/02

Reduced consumption of steam and lower alcohol loss ried away by the spent wash are ensured by correctin distn. column top temp. as a function of feed concn. The temp. sensor of the column top drives the raw m erial feed valve and a sensor monitors the pressure a column bottom. The signal is transmitted to steam v actuator.

The concn. of alcohol in the feed is determined by transducer connected to a function converters determ the setting of controllers to optimise the operation.

Aleshchenko V.I., Tikhonov V.Ya., Shelishpanskii B Bul. 39/25.10.78 16.2.76 as 326889 (3pp89)

WISC ★ D16 57822B/31 ★US 416

Protecting plants against frost damage - by displacing natura nucleating bacteria by non-ice-nucleating strains

WISCONSIN ALU RES FOUND 03.07.78-US-921800

C03 P13 (17.07.79) A01g-01

Plants are protected against frost damage by treating with non-ice nucleating bacteria to reduce the populati ice-nucleating bacteria normally present. The metho avoids environmental pollution.

The non-ice nucleating bacteria are not restricted single genus, e.g. of the 85 strains of P. syringae te 81 were ice nucleating and 4 were non-ice nucleating. effect was detected by adding a drop of a suspension o bacteria to a surface at -5°C and measuring the time takes the droplets to freeze. 3.6.78 as 921800 (6pp91

KALO- ★ D16 57866B/31 ★US 416

Liquid seed dressing - contains micro-dried bacteria and antibio oil carrier

KALO LABS INC 08.08.77-US-822792

C03 (17.07.79) C05f-11/08

seed dressing comprises a suspension of micro-
acteria, esp. nitrogen fixing bacteria and an anti-
al substance in a non-phytotoxic, non-bactericidal
rier. The bacteria are of Rhozobium genus and the
terial agent may be thiram (tetramethyl thiuram
ide) or sodium molybdate. Gelling agents (such as
nay be included to improve stability.
e antibacterial agent does not reduce the viability of
crodried bacteria in the presence of the oil carrier.
as 822792 (5pp916)

D16 08718A/05 =US 4161-424
endo-nuclease enzyme - produced by specified Bacillus

GAKU RES LABS KK 23.07.76-JA-087883
*(17.07.79) *DT2733-273 C07g-07/02 C12d-13/06*
endonuclease is capable of selectively recognising
c nucleic acids and cleaving the phospho-diester bond
nucleic acids to produce fragments having discrete
vt., the enzyme being obtd. from a cell-free extract
pecies of genus Bacillus. Pref. the endonuclease (i)
optimum pH of 7.2-8.3, (ii) has an optimum opera-
mp. at 35-37°C, and (iii) is activated by Mg^{2+} in the
t of 1-20 mmoles.
ecifically the endonuclease is (1) R. BsuM obtd. from
6051, (2) R. Bsu6633 obtd. from ATCC 6633, (3) R.
193 obtd. from IAM1193, (4) R. Bsu 1231 obtd. from
31, (5) R. Bsu1192 obtd. from IAM1192, (6) R. Bsu
btd. from IAM 1145, (7) R. Bsu 1076 obtd. from IAM
(8) R. Bsu 1114 obtd. from IAM 1114, (9) R. Bsu
btd. from IAM 1259, (10 R. Bce 14579 obtd. from
14579, (11) R. BceR obtd. from ATCC 31293, (12)
e 170 obtd. from ATCC 31292, (13) R. Bsu 1247 obtd.
IAM 1247, (14) R. Bce 1229 obtd. from IAM 1229, (15)
e 205 obtd. from ATCC 31294, (16) R. Bpu 1387 obtd.
AHU 1387, (17) R. Bme 899 obtd. from IAM 1030, or
. Bsp 1286 obtd. from IAM 1286. 18.7.77 as 816541
990)

D16 77617Y/44 =US 4161-425
e reagent for cholesterol assay - contg. a cationic surfactant
inate oxygen consumption inhibitors
KMAN INSTRUMENTS INC 18.03.77-US-778919 (01.07.76-
701919)
*J04 R16 (17.07.79) *BE-856-290 G01n-31/14*
esterol assay enzymatic reagent for rate determn. of
sterol in a sample to be assayed, comprises cholest-
oxidase and a buffer in an amt. to produce a soln. hav-
pH of 5.5-8.0. Improvement is that the reagent
er comprises an alkyldimethylbenzylammonium salt
r neutralising all oxygen consumption inhibiting effects
ibiting effects present in the sample to be assayed.
Pref. the reagent is freeze dried. Specific reagent
rises (a) 0.2-5 I.U. of cholesterol oxidase per ml of
ent, (b) 0-5 I.U. of cholesterol esterase per ml, (c)
-0.4 wt.% of (I) and (d) buffer. 18.3.77 as 778919
982)

D16 48923Y/28 =US 4161-426
ing exhaust gases contg. organic cpds. - using a rapidly
geable container contg. a composted material
EBRUDER WEISS KG 23.12.75-DT-558256
*1 (17.07.79) *DT2558-256 C12b-01/16 +C12b-01*
ous organic impurities are removed from waste gases
ontacting the waste gas with an absorbent. Absorbent
biologically active compost having a medium degree of
rity obtd. by the aerobic digestion of settled sludge or
nic waste which has been treated with Actinomyces
isborus or Coprinus fungi.
Appts. comprises a closed container having an inlet
s base, and an outlet at the top, and a supporting
d for receiving and holding the container. Stand has a
k disconnect means adapted for registration and gas-
t connection of the inlet on placement of the container
he stand with a source of waste gas. Container has
ns in the bottom for distributing the waste gas entering
inlet over the entire area of the container, and a means
measuring the biological activity of the absorbent in the
ainer.

Used esp. to treat waste gases originating from animal farms, from processing operations in animal carcass utilisation plants, from fermentation and rotting or digestion processes, and industrial plants. 17.12.76 as 751945 (3pp931)

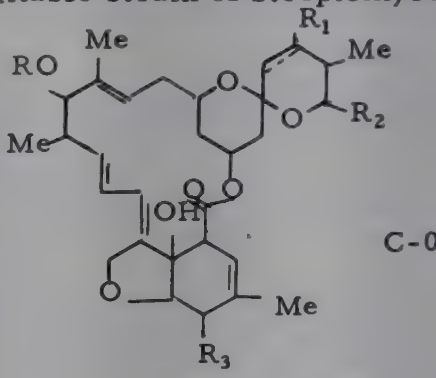
STAD ★ D16 57943B/31 ★US 4161-546
Texturising single cell protein - by forming foam of aqueous slurry, freezing, drying and heat curing
STANDARD OIL CO (IND) 03.08.77-US-821348
(17.07.79) A23j-03

A single cell protein slurry is textureised by (a) adding as texturising agent a protein isolate, protein concentrate and/or gelatin, the wt. ratio of protin to texturising agent being 1:9-9:1, (b) heating the slurry to 30-130°C; (c) whipping to form a foam; (d) freezing; (e) dehydrating the foam and; (f) heat treating the foam at 130-230°C for 3-120 mins.

The product has a meat-like texture. It can absorb water but does not disperse in it. 3.8.77 as 821348 (6pp955)

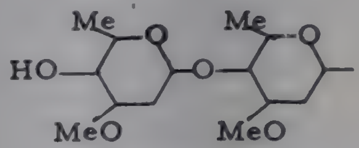
MERI ★ D16 57961B/31 ★US 4161-583
Purifying macrolide C-076 extract soln. - from Streptomyces avermitilis culture, by extn. with low boiling hydrocarbon, then with ethylene glycol, and back-extracting latter extract
MERCK & CO INC 03.10.77-US-839094
B02 (17.07.79) C07h-17/08

Crude C-076 extract soln., obtd. by the fermentation of a suitable strain of Streptomyces avermitilis, is purified



C-076

In the formula, R is a gp. of formula:



the broken line indicates a single or double bond; R_1 is OH and is present only when the broken line indicates a single bond; R_2 is propyl or butyl; and R_3 is methoxy or hydroxy.

C-076 is a parasiticide. 30.10.77 as 839094 (5pp914)

MOLI/ D16 52679B/29 =WP 7900-467
Bacterial culture process - using bacterium with temperature-dependent plasmid replication
MOLIN S (UHLI/) 30.12.77-DT-759053
*B04 (26.07.79) *DT2759-053 C12k-01/02*
D/S: N(BR, DK, JA, SU).

Prodn. of gene prods. is carried out by (a) obtaining a bacterium contg. a plasmid which has a controlled copy no. (no. of copies per cell) at one temp. (T_1) but has a much higher or completely uncontrolled ('runaway') copy no. at a different temp. (T_2); (b) culturing the bacterium under conditions such that the temp. is equal or close to T_2 for at least a predetermined time; and (c) isolating the gene prod. from the culture.

The process can be used to produce polypeptides or proteins, e.g. enzymes, hormones, or antigens.

The temp-dependent copy no. can be utilised, e.g., in cases where the prod. inhibits bacterial growth; in this case, the bacterium is cultured at T_1 until a large stock of cells has been produced, after which the temp. is changed to T_2 to maximise the prod. yield.
29.12.78 as DK0003 (41pp367)
(E) ISR: 6 Journal References.

See Also

D13 J5 4076899 D13 J7 9018349 D15 DT 2902365
D15 J5 4078859 D15 US 416154

D17: SUGAR; STARCH

BRBL ★ D17 56503B/31 ★DT 2803-160
Continuous centrifuge for sugar prodn. - having flat plate at top of rotating basket over which sepd. solids pass being sprayed on by fresh slurrying liq. to form new slurry
BRAUNSCHWEIG MASCH 25.01.78-DT-803160
P41 (26.07.79) B04b-07/04 B04b-15/12

Continuous centifuge for reslurrying sugar extract masses consists of a conical basket which is rotated and into which the feed is fed at the base liq. in the feed passes out through the mesh of the basket while the solids travel up.

Round the upper rim of the basket is a flat circular plate, over which the centifuged solids must pass. Mounted over this is a spray for the liquor to form a new slurry. The solids and liquid are ejected against a plate at 45° to horizontal. This causes some residence time and good mixing before the slurry drops and is passed on to the next stage of the process.

Used in sugar prodn. the arrangement allows successive extraction and processing by reslurrying the solids before they leave the machine. 25.1.78 as 803160 (14pp1053).

ELBA- D17 80694Y/45 =NL-160-878
Sugar cubes mfr. - by compression in slots in a rotating cylindrical drum
ELBA MAC FAB BV 20.04.76-NL-004172
*+P71 (16.07.79) *NL7604-172 C13f-03/02*

Sugar cubes are mufd in a device comprising a drum which rotates about a horizantal axis, the walls of which contain slots which receive the granular sugar and serve as forms for the compression into cubes. On the inside of the drum and aligned with each slot, there is a plunger operated by a cam and follower mechanism. The slots pass under a feed hopper and are filled with sugar, the sugar is then compressed by means of the plungers working against a counter surface held against the outersurface of the drum during the compression and the cubes are then pushed out of the slots onto a receiving conveyor.

The slots pass through a cleaning zone before they pass back under the hopper. In order to elimeinate the complicated control mechanism for the countersurface during the compression stage, the surface is attached to a spring loaded arm which pushes the surface against that of the drum but, at the other end is hinge mounted to a spring loaded passive piston. The frictional force due to the contact between the two surfaces carries the countersurface around the drum until, at a certain angle the support arm withdraws and the surface returns to the start position. 20.4.76 as 004172(4pp1370).

MOFO= ★ D17 57528B/31 ★SU-628-172
Beet sugar juice diffuser augers control - measures current of motors driving two augers for adjusting feed
MOSC FOOD IND TECH (SUGA=) 05.03.77-SU-462794
(13.09.78) C13d-03

The diffusion of juice in sugar prodn. is improved and sugar losses in the sugar-beet pulp are reduced by measuring the current of motors driving the top and bottom halves of augers.

The result indicates possible localised accumulation of cossettes, and the feed of fresh cossettes is adjusted depending on the accumulation.

The usage of the correcting signal permits local accumulation of cossettes to be avoided increasing the yield of white sugar. The two augers maintain a constant counterflow in the diffuser.
Mikhailov, V.I., Shirokov, L.A., Feldman, R.Z. Bul. 38/15.10.78. 5.3.77 as 462794 (2pp89)

KIFO= ★ D17 57529B/31 ★SU
Sugar juice clarification unit - comprises aluminium sulpho
connected to reactor and electro-flotation cell
KIEV FOOD IND TECH 05.04.76-SU-344179
(15.09.78) C13d-03/18

Improved clarification of diffusion juice in sugar n
-ure with a lower consumption of electric power is
by using the mixer for mixing the juice with alumi
sulphate. The unit also comprises a hydraulic pul
and an electro-flotation cell.

The defecated juice is mixed with sulphate adde
amounts of 0.02-0.04% of its volume and pumped t
reactor via the hydraulic pulsator. The aluminium
phate increases the number of carriers in the juice
promotes the formation of adsorption surfaces. Th
er remove the non-sugars and reduce energy uptak
wear of electrodes in the reactor.
Fedotkin, I.M., Zharik, B.I., Timonin, A.N. et a
Bul. 38/15.10.78. 5.4.76 as 344179 (3pp89)

STOM/ ★ D17 57641B/31 ★SU
Sugar beet cleaner - to which beet are fed hydraulically v
water reinforced with sand for cleaning in the drum
STOMAKHIN A E 29.03.77-SU-468494
(21.09.78) A23n-13

Sugar-beet cleaner, for use in sugar-prodn. instal
comprises a rotating cylindrical drum, fitted with
flights on its internal surface, pipeline for supplyi
to the inside of the drum, a conveyor to feed in the
beet, and means to rinse the beet after washing. T
cleaning quality is increased, and impurities are r
from the beet, by providing the drum with a zone w
beet can undergo dry rubbing. The height of the he
flights exceed the height of the helical flights in the
where the beet are washed.
Stomakhin, A.E. Bul. 39/25.10.78. 20.3.77 as 46
(3pp29)

UPRO= ★ D17 57642B/31 ★SU
Washing root vegetables - using vertical sealed chamb
vibrator, which creates intense turbulence in water-beet mi
UKR PROVISION MACH 17.05.77-SU-490740
(21.09.78) A23n-13

Washing of root vegetables, principally sugar beet,
ves incorporating the effects of vibrational oscillat
The process is intensified as a result of creating a
ent movement of the water, by carrying out the wa
a sealed chamber at an oscillating frequency of 35-
with an amplitude of 1-3:5 mm, and an acceleratio
22 g. over a period of 15-30 secs. The vertical ch
is placed on a working plate at the top of a vibratin
and is filled to 85-95% of its capacity with a sugar-
water mixture. The ratio of the beet to the water i
The chamber is sealed by fitting the cover in place
Belik, V.G., Gomanyuk, D.G., Petrovskaya, E.V
Bul. 39/25.10.78. 17.5.77 as 490740 (2pp29)

D18: SKINS; HIDES; LEATHER; TOBACCO

D18 56315B/31 ★BE -875-083
ng tobacco to increase its filling capacity - by impregnating
eous carbon di:oxide then heating
P MORRIS INC 29.03.78-US-891468 (29.03.78-US-891290)
(16.07.79) A24b
ocess to increase the vol by $\geq$ 50% comprises (a)
gnating the tobacco with CO_2, at a pressure of $\geq$17.5
nd at a temp. sufficient to maintain the CO_2 as a gas,
o incorporate $\geq$1 pt. CO_2 per 100 pts. tobacco; (b)
ng the pressure and (c) heating the tobacco under
ons to relase the CO_2 and expand the tobacco.
process uses a readily available, cheap, non-com-
le, non-toxic agent enabling tobacco of markedly re-
density and of greater filling power. 23. 3. 79 as
3 (28pp597)

★ D18 56397B/31 ★DT 2802-315
te paper web perforation device - with high tension
de pairs across the web connected in series
JNI-WERKE KORBER KG 20.01.78-DT-802315
(26.07.79) D21h-05/16
of cigarette paper are perforated for the purpose of
ing false air access by producing sparks across pairs
ctrodes above and below the moving web. Several
pairs of electrodes are connected in series so that
urrent, produced by a high-tension pulse, passes in
discharges through all gaps in turn.
is produced uniform holes in the paper and, if requ-
they can be given large cross-sections. 20.1.78
2315 (16pp39).

D18 88347Y/50 =GB 1549-470
g sulphide tanned pelts in aerated acid baths - contg. metal
reduce hydrogen sulphide evolution
HM GMBH 15.05.76-DT-621697
*01.08.79) *DT2621-697 C14c-01*
ide-contg. pelts are treated in an aq. acidic treat-
medium, such that the medium contains a water-solu-
alt of manganese, cobalt, nickel, titanium or zirconi-
and is $\geq$ partially permeated with O_2 during the treat-
to effect oxidation of hydrogen sulphide formed in the
um.
ref. the salt comprises manganese (II) chloride or sul-
, cobalt (II) chloride, nickel chloride or sulphate,
yl sulphate or zirconyl sulphate, being present in amt.
000 vol. ppm. w.r.t. medium.
he process is esp. used during deliming, bating,
ling, or preliminary treatment for synthetic-vegetable
d tanning of pelts. 13.5.77 as 020292 (4pp931)

D18 18780Y/11 =GB 1549-688
er and animal skin processing into furs(SW140277)
OHME DR T KG 18.02.76-DT-606420 (19.07.75-DT-532391)
*(01.08.79) *J52012-901 C14c-01 C14c-03 C14c-09*
dn. of leather or fur from skin material, includes treat-
water-contg. skin material with a liq. comprising
ling chemicals, tanning chemicals and neutralising
nicals in a water-immiscible organic solvent. The
er content of the skin material in the case of hide or
anned leather 50-80 (60-70) wt.% and in the case of
fur pelt 30-80 (40-70) wt.%.

Pref. the solvent is a liq. halogen hydrocarbon, esp. F- and Cl-contg. Process enables a considerable redn. in harmful and difficultly tendered-harmless effluent and a large economy in chemicals. Energy consumption in drying is also reduced. 19.7.76 as 029885 (6pp393)

TOSH ★ D18 57336B/31 ★J7 9018-358
Additive for tobacco filter - is derived from tannic acid and hydroxide of iron or aluminium
TOSHIBA PHARM KK 12.11.73-JA-126985
E14 P15 (06.07.79) A24b-15/02

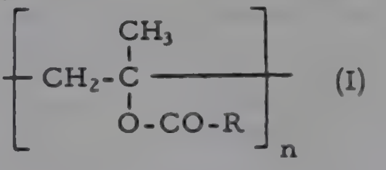
The additive is derived from tannic acid and hydroxide of Fe or Al. The additive is mixed with conventional filter material such as cellulose fibre, etc. It does not damage the taste and flavour of tabacco. 12.11.73 as 126985 A24b-15/027 (6.7.79) TOSHIBA PHARM KK (3pp) (J50076300)

STEL- ★ D18 B/31 ★RU --65-046
Leather industry emulsifier prepn. - by mixing non-saponifiable paraffin oxidn. derivs. contg. paraffin, adding water and stirring
STELA INTR 11.02.74-RU-077616
(04.08.78) C10m-07/02 C14c-09/02

FIRS- ★ D18 B/31 ★RU --67-760
Quickly processing sheep pelts - by soaking in water acidifying, adding sodium hydrosulphite and then chromium oxide and washing
1 MAI INTR 05.12.74-RU-080701
(30.01.79) C14c-01/08

PHIM D18 55674B/30 =WP 7900-488
Tobacco contg. non-volatile polymer of isopropenyl ester - which liberates carboxylic acid as aroma during smoking
PHILIP MORRIS INC 10.01.78-US-868562
*A97 E19 P15 (26.07.79) *NL7900-160 +A24d-03/12 C11c-03/02*
D/S: N(BR, JA) + E(CH, DT, GB).

A smoking material contains $\leq$ 1 wt. % of a poly-isopropenyl ester of formula (I)



$$\left[-CH_2-\overset{CH_3}{\underset{O-CO-R}{C}}- \right]_n \qquad (I)$$

where R is a 1-10C aliphatic, alicyclic or aromatic hydrocarbyl gp., and n = 2-200 (5-50). (I) liberates a carboxylic acid which is an aroma.

(I) is not migratory or volatile in tobacco at room temp. The aroma given off does not mask or counteract the natural tobacco aroma.

8.1.79 as US0003 (17pp510)
(E) ISR: US4092988; US2766145; US2766147; US2766148; US2766149; US2646437; US4119106; 2 Journal References.

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL ; TOILET PREPARATIONS

FARB D21 41165R/23 =DS 1818-044

Toothpastes fillings polishes etc containing ion exchange - resins which come in contact with living teeth

BAYER AG 06.11.68-DT-807299 (06.11.68-DT-818044)

*B07 +P32 (26.07.79) *DT1807-299 A61k-07/18 +A61c-13 A61k-05/06*

Anion- and cation-exchange resins enriched with F, PO_4 and Ca ions are used in dental prepns. and prosthetics to inhibit the development of caries. 6.11.68 as 818044 Div. ex 1807299(3pp047).

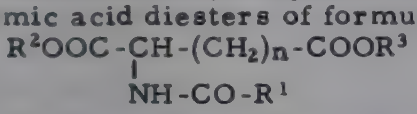
AJIN D21 35799V/19 =DS 2353-088

Aminocarboxylic acid diesters - useful as oil-sol. surfactants for skin care compsns

AJINOMOTO KK (NIEM-) 23.10.72-JA-106018

*E16 (26.07.79) *NL7314-487 A61k-07 C07c-103/48 C08g-65*

Compsn. contains N-acyl-aspartic acid diesters and N-acyl-glutamic acid diesters of formula



$$R^2OOC\text{-}\underset{\displaystyle NH\text{-}CO\text{-}R^1}{\underset{|}{CH}}\text{-}(CH_2)_n\text{-}COOR^3$$

(in which R^1-CO- is the residue of one or more straight chain 8-22C fatty acids; R^2O are polyoxyalkylene gps with 2-20 oxyalkylene units each of 2-4 carbon atoms which have been etherified with a 8-20C alcohol or esterified with oleic, stearic or isostearic acid; and n= 1 or 2).

Compsn. is useful as an ingredient of cosmetics such as hair cream, oil shampoo, etc. The diesters are oil soluble, of low toxicity, non-irritating and biodegradable. 23.10.73 as 353088(13pp068).

RIES/ D21 47821A/27 =DS 2733-394

Artificial tooth root of plastic loaded with a bioactive phosphate - to form a root bone graft without later rejection

RIESS G 23.07.77-DT-733394

*A96 P32 (26.07.79) *BE-864-402 A61c-08*

An artificial tooth with an implantable root has the root made from a biostable polymer matrix compatible with human cells, e.g. methyl methacrylate (co) polymers and polypropylene and polyethylene. Imbedded uniformly in the surface of the polymer matrix are spherical particles of sintered resorbable bioreactive tricalcium phosphate of dia. 0.2 - 1.5 mm. There is a thin layer of non resorbable sintered tetra-calcium phosphate on the surface of the spheres imbedded in the polymer matrix only.

The root can be implanted firmly into the bone without rejection. 23.7.77 as 733394(6pp068).

UNIL ★ D21 56544B/31 ★DT 2901-070

Cleansing bar contg. water-soluble acyl isethionate salt - and saccharose ester to improve slidability

UNILEVER NV 19.01.78-GB-002218

E13 (26.07.79) A61k-07/50 C11d-01/83 C11d-17

Cleansing or soap bar contains 20-70 (30-60) wt.% water-soluble salts of 8-22C acyl isethionates and sufficient, pref 5-30 (10-25) wt.%, of 6-22C fatty acid-derived saccharose ester, (I), to increase the slidability of the bar.

The alkyl or alkenyl gps. of the fatty acids used to esterify the saccharose pref. contain 16-18C. Satisfactory foaming is achieved by using (I) contg. $\geqslant$ 40 wt.% monoester. Thebars opt. contain perfume, stabilisers, e.g. EDTA pigments, fillers, opacifiers and softeners, 5-15 % water, 0-50 (10-40)% mild anionic surfactants and 0-40 (5-20) % oily or waxy cosmetic additives. 12.1.79 as 901070 (12pp200).

ESPE ★ D21 56551B/31 ★DT 2901-534

UV irradiator for curing teeth fillings - filter coating on lamp reflector focusses desired wavelengths on light conductor

ESPE FAB PHARM PRAPARATE 23.01.78-OE-000451

A35 +P32 P34 Q71 (A96) (26.07.79) A61c-19 A61n-05/06 B29d-07/22 F21l-01

Irradiating apparatus, for curing materials with a n
selected wavelength band e.g. u/v, has a lamp and
surrounding reflector to focus on the entrance to a l
conductor and a thin filter in the beam to reflect the
ted wavelength band and allow other radiation to pas
through. The reflector is a thin film filter mounted
carrier of transparent material, the selected wave
is in the u/v adjacent visible area.

Partic. suitable for curing teeth fillings, precise
ering and hence high degree of utilisation of desired
of the sepctrum, simple design, low thermal load on
struction, and safety in event of damage to filter are
vided. 26.7.79 as 901534 (17pp1007).

WARN D21 33420A/19 #GB 15

**Stick deodorant contg. stearate and rice starch - has
component liberation at application without fragility**

WARNER-LAMBERT CO 03.11.77-BE-860394 (18.11.7
048094)

*E33 +Q34 (E12) (01.08.79) *BE-860-394 A61k-07/38*

An anti-perspirant and deodorant compsn. in stick fo
comprises 5-25 wt.% talc, 20-80 wt.% Al chloride,
sulphate and/or Al chloro-hydroxide, 5-20 wt.% Mg,
and/or Ca stearate, 1-10 wt.% kaolin, 1-5 wt.% CaC
40 wt.% rice starch, 0-1.0 wt.% mineral oil, 0-3.0
water, 0.1-5.0 wt.% glycine, 0.001-1.0 wt.% perfun
and 0-1.0 wt.% 2, 4, 4-trichloro 2'-hydroxy-diphenyl

The mixt. is converted into a stick form by blendi
moulding at a pressure of 600-3, 000 psi. The compsr
hibits consistently good "pay-off", without being britt
18.11.77 as 048094 (4pp931)

ARMO D21 77838X/42 =GB 154

**Anti-perspirant contg astringent complex - prepared
aluminium or zirconium cpd and basic zirconium cpd gel**

ARMOUR PHARM CO 26.03.75-US-562300

*E32 (E12 E33) (01.08.79) *DT2605-386 A61k-07/34 C
+C07f-05/06*

An astringent antiperspirant prepn. comprises a com
of (a) an acidic Al and/or Zr cpd., and (b) a freshly p
basic Zr cpd. selected from basic Zr carbonate gel,
Zr-amino acid gel and/or Zr hydroxide gel. When an
cpd. is present in the complex, the molar ratio of Al/
10:1-1:10.

Pref. the Al cpd. is an Al halide, basic Al halide,
Al sulphate, basic Al nitrate, basic Al sulphamate, a
Al phenolsulphonate or their mixts. Pref. (b) is of em
cal $Zr(OH)_xA_{4-x}$ (where A is amino acid and x is >0 a
<4 and need not be an integer).

The complexes produce a soln. pH of 3-5 and may
used in various antiperspirant forms. 26.3.76 as 008
(14pp393)

CRIS/ ★ D21 56696B/31 ★GB 201

**Hardenable carboxylate cement compsn. - comprising carbo
acid polymer, ion-leachable (alumino)silicate, and metal s
accelerate hardening**

CRISP S 17.01.79-GB-001704 (17.01.78-GB-001833)

*A14 L02 M22 (A81 A92 A96 D22) (01.08.79) A61k-05/06
03/10*

A hardenable compsn. comprises (a) (a hydrolysable p
cursor of) a poly(carboxylic acid); (b) a particulate ion
leachable (alumino)silicate reactable with (a) in the pr
ence of water to set to a hardened compsn., and (c) a
metal salt which accelerates the setting of the compsn
Pref. the compsn. also includes a complexing agent s
ble in an aq. soln. of (a).

Due to the presence of (c) the compsn. has a much
er setting time compared with otherwise similar comp
disclosed in GB 1422337.

The compsns. find use (1) in dentistry; (2) to coat b

ons; (3) in forestry to repair and support broken
; (4) as modelling materials; (5) in building in-
s surface coatings, flooring materials, speciality
including groutings, panellings, shuttering and
s; (6) to seal exposed and hazardous asbestos
and claddings; (7) as foundry sand binders which
d green strength, yet which are readily friable and
le after investment; and (8) as moulds for cera-
cles. 17.1.79 as 001704 (13pp914)

D21 56722B/31 ★J5 4076-575
m 2-pyrrolidone-5-carboxylate prodn. - from 2-
ne-5-carboxylic acid and amorphous aluminium
e, useful as pharmaceutical, antistatic agent, cosmetic

KEN FINE CHEM K 24.11.77-JA-141052
12 G02 (B07) (19.06.79) C07d-207/28
of aluminium 2-pyrrolidone-5-carboxylate com-
reating 2-pyrrolidone-5-carboxylic acid with non-
ine aluminium hydroxide in solvent. Pref. the
um 2-pyrrolidone-5-carboxylate is aluminium
xymono-2-pyrrolidone-5-carboxylate; aluminium
-di-2-pyrrolidone-5-carboxylate; or aluminium
yrrolidone-5-carboxylate. Pref. the solvent is

ninium salt of 2-pyrrolidone-5-carboxylic acid
has excellent moisture-maintaining property, acid-
ction and astringent action and little irritation
n body and the substance is useful in wide applic-
s pharmaceuticals such as acid-static agent or
nt base, cosmetics such as emulsion or cosmetic
textile-finishing agent, paint additives or stabili-
.. 24.11.77 as 141052 (3pp69).

D21 56811B/31 ★J5 4076-835
essing cosmetic contg. water soluble pigment - includes
l, wax and cpd. contg. polyoxyalkylene chain
BO KK 30.11.77-JA-144454
(19.06.79) A61k-07/11
smetic contains castor oil and wax and is combined
ater soluble pigment and ⩾1 cpd. (I) having poly-
ylene chain. (I) is polyoxyethylene-castor oil, poly-
ylene-hardened castor oil, polyoxyethylene-alkyl-
ether, tri-higher-alkyl-polyoxyethylene-ether-
oric acid ester, tri-oleyl-polyoxyethylene-ether-
oric acid ester, polyoxyethylene-hardened castor
her fatty acid-monoester, polyoxyethylene-poly-
pylene-higher alkylether, polyoxyethylene-polyoxy-
ene-oleylether or polyoxyethylene-mono-oleate.
smetics can be solubilised and stabilised and clear-
ured hair-dressing cosmetics of good stability,
rance, transparency and light resistance can be
30.11.77 as 144454 (6pp5).

D21 02607X/02 =J7 9018-289
nclusion compd. prepn. - by contacting fluorescein with
xtrin
IN KK 09.10.73-JA-112883
*(06.07.79) *J50064-320 +A61k-07/50 C09b-11/28 C09b-67*
rescein-cyclodextrin inclusion compd. is prepd.
ntacting fluorescein (I) with cyclodextrin.
an example 450 ml 1% ethanolic I was added to a
of 45g. β-cyclodextrin and 30 mol H_2O and stirred
and the prod. dried to give a mixt. of inclusion
d. and excess cyclodextrin, contg. 9 wt.% I. The
was washed successively with cold water, cold ace-
and cold ether and dried to give the compd. contg.
% I which corresponds to a 1:1 mole ratio. 9.10.73
2883 C09b-67/00 A61k-7/50 C09b-11/28 (6.7.79)
N KK (2pp)(J50064320)

D21 36292W/22 =NL-160-719
ampoo and conditioner - contg. water-soluble acid addn. of
alkyl ester polymer, amphoteric detergent and surfactant
T STARCH & CHEM CORP 19.11.73-US-417260
*E13 (16.07.79) *DT2454-840 A61k-07/06*
treatment preps. consists of a soln. in water of an
tg. polymer, an amphoteric detergent and opt. other
ctant. The amphoteric detergent forms 1-25 wt.% of
ctant. The amphoteric detergent forms 1-25 wt.% of
tal sdn. and consists of an imidazoline deriv. The
0.20 wt. % of the soln. may be

a sodium Cauryl ether sulphate.

The N-contg. polymer makes up 0.1-10.1 wt.% of the total soln. and consists of a water-soluble acid salt of a non-quaternised amino-alkyl ester of (a) homopolymer of a 3-5C ethylenically unsatd. carboxylic acid, (b) copdymer of ⩾2 3-5C ethylenically unsatd. carboxylic acids, (c) copoly-mer of a 3-5C ethylenically unsatd. carboxylic acid with an alkyl or hydroxy alkyl esten of these acids (1-18C per alkyl) or an amide of the acids.

The polymer is pref. a phosphate salt of poly(aminoethyl acrylate-hydroxypropylacnylate). 19.11.74 as 015040(15pp)

KETT- ★ D21 B/31 ★OE 7801-241
Silicone impression material for dental purposes
KETTENBACH A FAB 21.02.78-OE-001241
A96 P32 (A26) (15.07.79) A61c-09

MIRA- ★ D21 B/31 ★RU --64-547
Hair-care cosmetic compsn. - contains sodium lauryl ether sulphate, fatty acid aminoalkyl betaine and sapropel mud extract
MIRAJ INTR COSMETIC 27.06.75-RU-082676
(08.08.78) A61k-35

MIRA- ★ D21 B/31 ★RU --65-292
Make up compsn. - contains water, lanolin, fatty acid mono: and di:glyceride mixt., phospholipid alkanol-amide, ester, glycerol, alcohol ethoxylate
MIRAJ INTR COSMETIC 27.06.75-RU-088221
(01.08.78) A61k-07/03

MIRA- ★ D21 B/31 ★RU --65-295
Aq. hydrating emulsion for complexion - contains lanolin, paraffin oil, sorbitan mono:palmitate, cetaceum, stearin, chlorine-contg. mud extract soln.
MIRAJ INTR COSMETIC 27.06.75-RU-088287
(03.08.78) A61k-07/02

MIRA- ★ D21 B/31 ★RU --65-296
Skin-care compsn. - contains anion-active detergent, conc. sapropel mud soln. contg. chlorine, menthol, opt. water and salt
MIRAJ INTR COSMETIC 27.06.75-RU-088289
(03.08.78) A61k-07/06

MIRA- ★ D21 B/31 ★RU --66-449
Aq. tonic complexion lotion - contains water-soluble Hippophae rhamnoides extract, ethoxylated lanolin, propylene glycol and perfume
MIRAJ INTR COSMET 19.02.75-RU-081449
(02.08.78) A61k-07

MOSV= ★ D21 57652B/31 ★SU -628-919
Medicinal shampoo compsn. - contg. addn. of vitamin, tartaric acid, di:ethanolamine, glycerol, alcohol and specified stabiliser
MOSC SVOBODA COSMET 28.07.76-SU-390612
B05 (21.09.78) A61k-07/06

Medicinal shampoo compsn. with tonic and hair restorative characteristics comprises (in wt.%): glutamic acid 10.0-14.0; citric acid 0.6-0.8; tartaric acid 0.6-0.7; vitamin PP 0.5-3.0; diethanolamine 1.0-2.0; disodium ethylenediamine tetraacetate 0.5-0.6; glycerol 5.0-10.0; alcohol 5.0-10.0; potassium hydroxide 4.0-6.0 and water the rest.

The shampoo gives hair natural shine and elasticity strengthens the hair roots and removes hardness caused by salts from hard water.

Kasanova E.V., Lipshits L.G., Malyonna G.V., Bul. 39/25.10.78 28.7.76 as 390612 (2pp938)

GIGA/ ★ D21 57820B/31 ★US 4161-065
Moulded denture formed of rigid and remouldable portions - contg. acrylic resin and liquid monomer with plasticiser in remouldable portion
GIGANTE J 07.10.77-US-840154
A96 P32 (A14) (17.07.79) A61c-13/04 B29c-05/04 B29d-03

An article used in producing a denture is made by positioning a first compsn. (I) in a mould partially filling a cavity thereof. . The cavity is then rotated and a second compsn. (II) is added as the mould is rotating and is centrifugally cast within the cavity, filling at least a palatal portion thereof.

(II) is a curable mixture of a polyacrylic powder and a plasticised liquid monomer which upon curing becomes rigid but not completely polymerised and thus capable of being remoulded with finger pressure. (II) is cured in the cavity to integrally join (I) and (II) to obtain a rigid frame structure.

In producing the denture, (II) including the palatal portion is remoulded with finger pressure to conform to portions of a mouth while (I) remains rigid. The denture is suitable for mass prodn. 7.10.77 as 840154 (15pp1302)

DENT- ★ D21 57873B/31 ★US 4161-410
Oral, settable dental compsns. - contg. liq. poly:carboxylic acid, activator, metallic base, and thermoplastic hydrocarbon polyterpene resin binder
DENTON IND INC 22.05.78-US-908241 (27.10.76-US-736241)
A96 (17.07.79) C09k-03

Oral settable dental compsns. are prepd. by reacting a component (A) with a component (B). Component (A) contains (a) a polycarboxylic acid (I) from C_{36} dimer acid and/or C_{54} trimer acid; (b) 1-30% (by wt. of (I)) of a reaction rate activator (II) from lower aliphatic organic acids and Ca, Mg, and Zn salts (all $\not>$ 10% by wt. of (I)), or lower aliphatic or aromatic alcohols; (c) 0.3-1.3 pts./pt. of (I) of a polyterpene resin (III). Component (B) contains 0.1-4 pts/pt. of (I) of a metallic base (IV) from (hydr)oxides of Zn, Mg, Ca, Cu or mixts.

Solid, coherent, cementitious dental compsn. may be prepd. using (III) as the binding resin. 22.5.78 as 908241 (5pp478)

MINN ★ D21 57930B/31 ★US 4161-518
Quat. ammonium organo-siloxane cpds. - used in dentifrice compsns. for inhibiting plaque formation on teeth
MINNESOTA MINING CO 29.12.77-US-865707
B05 E11 (17.07.79) A61k-07/18 A61k-31/69

Dentifrice compsn. contains $\geqslant 1$ caries propylactic agents, soaps, detergents, flavouring agents, sweetening agents, and humectants, and $\not< 0.05$ wt.% of a quat. NH_4 organosiloxane $[(R_1)_3Si\text{-}R_2\text{-}N^+R_3R_4R_5]X^-$ (where R_1 is 1-5C alkoxy; R_2 is 1-25C alkylene; R_{3-5} are 1-25C alkyl; and X is an anion).

The compsns. are useful in controlling cariogenic bacteria, and inhibit the formation of plaque over extended periods of time despite relatively infrequent application to teeth. 29.12.77 as 865707 (5pp478)

STER ★ D21 57937B/31 ★US 4161-526
Pyrithione (salt) or di:pyrithione compsns. - for application to skin or hair, contain zinc oxide, hydroxide or salt to prevent discolouration
STERLING DRUG INC 20.07.78-US-926293
E12 (17.07.79) A61k-31/55 A61k-33/30

Discolouration of white-cream yellow pyrithione (I) (or salt) or dipyrithione (II) compsns. is prevented or removed by addn. of 0.01-1% of a Zn cpd. (III). (III) is a Zn salt of an organic carboxylic or inorganic acid, $Zn(OH)_2$, or ZnO, or mixts.

Addn. of (III) prevents the known discolouration of compsns. contg. (I) and/or (II), and removed it if it has occurred. The title compsns. have antimicrobial props, and are useful for skin cleansing, and for incorporation into cosmetics and antidandruff shampoos. 20.7.78 as 926293 (3pp478)

CALI ★ D21 57977B/31 ★US 4161-612
Thio:di:glycolic acid from glycolic, di:glycolic or bromo-acetic acid - by reaction with hydrogen sulphide using aq. hydrogen bromide catalyst
CHEVRON RESEARCH CO 31.03.78-US-892246
E17 (17.07.79)

Thiodiglycolic acid is prepd. from glycolic, diglycolic and/or bromoacetic acid and H_2S in the presence of aq. HBr at 90-220°C, pref. 100-180°C and esp. 120-160°C, and 0.1-100 atmos., pref. 10-50 atmos. and esp. 10-40 atmos. The concn. of HBr is pref. 5-50 wt.% of the reaction mixt.

Thiodiglycolic acid salts are used in hair-waving and depilatory compsns., and by their colour reaction, in qualitative tests for Fe salts.

The process is pref. continuous, in which case any bromoacetic acid in the prod. can be recycled to provide quantitative yields, but pref. conversion to prod. is complete and glycolic acid and H_2S are reacted at 150
atmos., the H_2S glycolic acid mole ratio being 3 a
HBr concn. being 20 wt.% of the total reaction mi
31.3.78 as 892246 (3pp1406)

MINN D21 57930B/31 =W
Quat. ammonium organo-siloxane cpds. - used in
compsns. for inhibiting plaque formation on teeth
MINNESOTA MINING CO 29.12.77-US-865707
*B05 E11 (26.07.79) *US4161-518 A61k-07/22 +A61k-*
D/S: N(BR, JA, SU) + E(CH, DT GB, SW).

Dentifrice contains an organo siloxane deriv. of fo
(I)

$$[(R^1)_3\text{-Si-}R^2\text{-}\overset{\oplus}{N}R^3R^4R^5]X^{\ominus} \quad (I)$$

(R^1 = 1-5C alkoxy;
R^2 = 1-25C alkylene;
R^3, R^4, R^5 = 1-25C alkyl and
X is an anion, pref. Cl, Br, F or I).

Pref. the compsn. contains $\geqslant$ 0.05 wt. % (I) with
methoxy; R^2 = 1-10C alkylene; R^3 = 10-20C alkyl
= CH_3 and X = Cl; esp. R^2 = propylene and R^3 = octa
(cpd. (Ia)).

The compsn. is for controlling cariogenic bacte
inhibiting plaque formation. The cpds. are effecti
when applied infrequently. The dentifrices are fo
ed as mouthwashes, gels, pastes, powders etc.

28.12.78 as US0255 (13pp1251)
(E) ISR: US3624120; US2580473; US3507955; US2
US3297452; US3703583; US3124512; US2921885;
3 Journal References.

MINN ★ D21 57995B/31 ★WP
Dentifrice contg. fluoro:aliphatic calcium chelating agent -
cariogenic bacteria and plaque formation
MINNESOTA MINING CO 29.12.77-US-865680
B05 E19 (26.07.79) A61k-07/18
D/S: N(BR, JA, SU) + E(CH, DT, GB, SW)

Dentifrice compsn., free from polyvalent metals,
contains a fluoro cpd. of formula $(R_f)_mYX$ (I) or
$(R_f)_mQYX$ (II) (R_f = 4-16C fluoroaliphatic radical,
perfluoroalkyl.
Y = Ca-complexing gp. having formation constant
and forming a complex with Ca whose structure co
$\not>$ 20 atoms in its backbone;
X = non-interfering terminal gp., e.g. 1-4C alkyl,
sulphonate or aryl,
m $\geqslant$ 1.
Q is a non-interfering linking gp).
Pref. the compsn. contains $\geqslant$ 0.05 wt. % (I).

(I) inhibit growth of cariogenic bacteria and form
of plaque. They are formulated conventionally as m
washes, pastes, gels, powders, etc.

28.12.78 as US0256 (24pp1251)
(E) ISR: US2829086; US2955985; US3535421; US3
US3346612; US2809990; US2759019; US2567011.

MINN ★ D21 57996B/31 ★WP 7
Dentifrice contg. membrane forming material - e.g. pol
acid, to inhibit cariogenic bacteria and plaque formation
MINNESOTA MINING CO 29.12.77-US-865681
A96 E19 (26.07.79) A61k-07/16
D/S: N(BR, JA SU) + E(CH, DT, GB, SW).

Dentifrice contains a water-dispersible membrane-
forming material (A) which, when applied to the sur
of the teeth, forms a continuous hydrophobic barrie

Pref. (A) is $\geqslant$ 0.005 wt. % of the compsn. and so
pref. types are of formulae $(R_f)_mQ_dZ$; R_1COOA;
$(R_2O)P(O)(OH)_2$; $(R_9)_bSi(R_{10})_{4-6}$; and $(R_{11})_xTi(OR_{12})_4$
(R_f = satd. fluoro-aliphatic gp.; Q is linking gp.; Z
anionic gp.; d = 0 or 1; m = $\geqslant$ 1 but is 1 or 2 when
R_1 = 6-24C hydrocarbyl and A = H or cation. R_2 = 1
hydrocarbyl. R_9 = $\not>$ 25C (fluoro)hydrocarbyl; R_{10}
alkoxy; b = 0-3. R_{11} = 1-10C alkoxy or C, H, O cont
with 1-20C; R_{12} = 10-20C hydrocarbyl or hydrocarb
with N, P, O or S substits.; x = 0-3).

Also useful are (i) polyacrylic acid; (ii) polymer
repeating units $-CH_2CH(CONH_2).CH_2.CH(CONH_2)-$ or

H(Ph-4SO_3Na)- and (iii) copolymers of acrylates
ndant acid functions and polyvinyl phosphate.
nhibit cariogenic bacteria and formation of plaque
hen applied relatively infrequently. They are
ated as mouthwashes, pastes, powders, gels etc.
8 as US0257(42pp1251)
: US3969499; US3956480; US3751568; US3429963;
469; US3624120; US2580473; US3507955;
086; US2955985; US3431208.

See Also

D13 GB 1549731 D13 GB 1549732 D25 US 4161455

D22 : BANDAGES ; DRESSINGS

★ D22 56316B/31 ★BE -875-096
able tampon or towel - contains super-absorbent polymers
cludes cavities for high total absorption capacity
GATE PALMOLIVE CO 27.03.78-US-890155
F07 P32 (16.07.79) A61f
itary towel has a central part or absorbent core of
yers of fluffy pulp, the lower of which contains cav-
strengthened by coverings and extending over the gr-
part of the lower layer.
e cavities are formed by embossing the simultaneous
ng, thus compressing the material beneath the cavi-
and providing a covering of a soluble binding materi-
ich as starches, dextrin, CML, polyvinyl alcohol or
lysed polyvinyl acetate. The invention further envi-
the use of superabsorbent polymers such as derivs
lyacrylonitrile or polyacrylamide, which are opt.
ed on to starches.
reviously known towels have not been capable of abso-
both regular flow and sudden flooding without conse-
leakage. The present towel prevents leakage of any
and has an extremely high total absorptive capacity.
79 as 875096 (8pp1359,

D22 61601X/33 =DS 2511-830
tiated germicidal compns - contg dialkyl sulphides,
oxides or sulphones as synergist
HARMA-VERTRIEB AG 18.03.75-DT-511830
*97 B05 C03 +P34 (26.07.79) *BE-839-727 A61l-13*
nicide contains a mixt. of bactericide and an organic
d. as the active components. In partic., a mixt of
. ammonium and/or sulphonium salts with one or more
ds. of formula $R_1S(O)_nR_2$ is used.
n the formula, n is 0-2; R_1 is 6-18 C alkyl; and R_2 is
C alkyl, aralkyl, 2-4 C hydroxyalkyl, -(CH_2CH_2O)m
($CHMeCH_2O$)m, where m is 1-12. Pref. m is 1-6;
s 8-14 C alkyl; and R_2 is 1-7 C alkyl, $PhCH_2CH_2$ or
H_2. 18.3.75 as 511830(6pp047).

I D22 16823X/10 =DS 2523-618
vinylpyrrolidone-iodine prepn. - from polyvinylpyrrolidone
od. in anhydrous solvent in presence of radical inducer and opt.
vy metal auxiliary activator
BASF AG 28.05.75-DT-523618
*A96 B04 C03 P34 (A14 B06) (26.07.79) *BE-832-439 C08f-08/22*
pn. of polyvinylpyrrolidone-iodine complex polymeris-
n of vinylpyrrolidone with a free radical catalyst and
. a complex of organic salt of a heavy metal (atomic
nber 23-29), in an inert organic solvent, followed by
n. of water and azeotropic distn. to leave an aq. soln.
polymer; the soln. is treated with steam and then spray-
ed; the residual polymer is then treated with I_2.
The treatment with steam enhances the stability of the
duct. 28.5.75 as 523618(5pp047).

Z D22 72816A/41 =DS 2724-814
terial for prepn. of bone cement - contg. acrylate copolymers
h glass particles and fibres to give good mechanical properties
KULZER GMBH 02.06.77-DT-724814
*A96 L02 P32 (A14) (26.07.79) *BE-867-756 C08k-07/14 C08l-33/10*
wdered methyl(meth)acrylates bone cement pre-products
tain 15-75 wt% of an inorganic filler mixt. The mixt.
consists of 90-99 wt% powdered, bioactive glass ceramics of particle size 10-200 um, pref. 90-125 µm, and 1-10, pref. 5-10 wt% glassy mineral fibres 1-20, pref. 2-5 mm long. The filled copolymers are used in polymer/monomer preparations curable by peroxides.

The mineral fibres pref. consist of glass or a bioactive glass ceramics. The bioactive glass pref. consists of (wt%) 20-60 SiO_2, 5-40 P_2O_5, 2.7-20 Na_2O, 0.4-20 K_2O, 2.9-30 MgO and 5-40 CaO. The mixt. pref. also contains an X-ray contrast agent and an antibiotic.

The bone cement has good processing properties. The cured cement has good mechanical properties and readily knits to the bone tissue. 2.6.77 as 724814(4pp260).

BADI ★ D22 56356B/31 ★DS 2818-767
Polyvinyl pyrrolidone-iodine prodn. by direct reaction - in presence of acid, salt or amide gives prod. used as germicide, bactericide, fungicide and disinfectant
BASF AG 28.04.78-DT-818767
A97 (A14) (26.07.79) C08f-08/22

Prodn. of PVP-iodine (I) by reacting powdered polyvinylpyrrolidone (PVP) with I_2 at 70-100 °C is carried out in the presence of HCOOH, $(COOH)_2$ or an ammonium salt or amide or H_2CO_3, HCOOH or $(COOH)_2$.

(I) is useful as a germicide, bactericide, fungicide and disinfectant. The process gives a (I) which is esp. stable in aq. soln., with an I_2: iodide ratio of 2:1 and a distribution coefft. of 190-250, pref. ca. 200. Long tempering times are avoided. 28.4.78 as 818767(5pp016).

BENY ★ D22 56534B/31 ★DT 2853-614
Implant consisting of collagen coated carbon esp. fibres - useful e.g. as substrate for skin growth and as synthetic skin or blood vessels
BENTLEY LABS 25.01.78-US-872241
(26.07.79) A61k-33/44 A61k-37/12

Implant consists of a biologically-compatible C substrate coated, at least on the outside, by collagen. Pref. it comprises numerous C fibres bonded by the collagen coating. These fibres are pref. overlapping so as to form a web and the collagen fills all the spaced between. The substrate is pref. nonporous and non-biodegradable, esp. it is made of pyrolytic C on a graphite substrate, or of glassy C.

Used as a substrate for growth of skin tissue; for replacement of skin or blood vessels; for coating implanted prostheses and for closing skin over implants. 12.12.78 as 853614 (8pp1251).

ETHI D22 85309X/46 =GB 1549-666
Surgeons fastener for wounds - consisting of thread with holding ends and applied by hollow needle
ETHICON INC 23.04.75-US-571043
*A96 P31 P34 +P32 (01.08.79) *DT2617-211 A61b-17/04*

A sterile fastener for closing a wound or incision in mammalian tissue, comprises a filament terminated at each end by a non-adhesive head. The fastener is threaded through the tissue to span the wound or incision with both ends of the filament extending out of the tissue and the heads lying flat on the external skin surface. The fastener is removed from the thus closed wound or incision by snipping off one head and withdrawing the fastener by the opposite head.

Pref. the fastener is composed of biologically non-absorbable material, esp. nylon, polyolefin or polyester. Alternatively the fastener is composed of biologically absorbable material, esp. catgut, collagen, a homopolymer or copolymer of glycolide or lactide. 22.4.76 as 016340 (6pp393)

COLG D22 71906X/38 =GB 1549-709
Disposable diaper - with pressure sensitive adhesive for fastening
COLGATE PALMOLIVE CO 31.07.75-US-600877
*P21 P32 (01.08.79) *US3978-860 A41b-13/02*

Disposable diaper has an adhesive tape tab fastener comprising a strip of tape with pressure-sensitive adhesive on one surface and with a pad along at least a portion of only the margin of this surface, so as to cushion the edge of the tape bounding the margin on the portion and to leave an area of adhesive uncovered by the pad.

Pref. the pad is of gauze and the diaper includes a release sheet secured to the adhesive and overlying the pad. The pad pref. has a teased or fluffed outer surface.

The likelihood of the tape tab chafing the infant's skin should the diaper become displaced in use is reduced. 15.7.76 as 029543 (3pp393)

TSUD/ ★ D22 56934B/31 ★J5 4077-636
Anti:mould coating compsn. - comprising organic nitrogen or chlorine cpd., synthetic rubber or resin emulsion, and cellulose deriv.
TSUDA I 21.10.77-JA-128529
A82 C03 E14 (A18 C02 E13) (21.06.79) C09d-05/14

An antimould coating are prepd. by mixing organic nitrogen cpd. or organic chlorine cpd. as an anti-mould agent with an emulsion mixt. consi sting of synthetic rubber or synthetic resin emulsion and cellulose deriv. material.

The coatings applied to interior walls of concrete, mortar, print, plywood, fibre wall, etc..

The emulsion base may be SBR, methylmethacrylate-butadiene rubber, nitrile rubber, chloroprene rubber, natural rubber, acrylic ester resin, butyral resin, vinyl acetate resin and esp. EVA copolymer. As cellulose deriv. hydroxyethylcellulose, ethylhydroxyethylcellulose or aminoethylcellulose is used. Also, an extender, such as titanium oxide, clay, calcium carbonate, barium sulphate or gypsum may be added. As the anti-mould agent, 2-(4-thiozolyl)-benzimidazole or pentachlorophenol is used in an amt. of 0.1-2.0% relative to the resin emulsion. 21.10.77 as 128529 (3pp78).

DAIL ★ D22 57199B/31 ★J5 4078-892
Liq. absorbing material for sanitary articles - consists of cellulose acetate fibres recovered from cigarettes and other fibres
DAICEL KK (FUJI-) 05.12.77-JA-145886
A96 F07 P32 (A18) (23.06.79) A61f-13/18

Material consists of 100 pts.wt. of cellulose acetate fibre and 0 - 900 pts.wt. of fibrous fibre. The cellulose acetate fibre has a denier of < 8 and anabnormal cross-section. The cellulose acetate fibre is recovered from filter plugs for cigarettes.

The material is used in a throwaway baby's napkin, old man's napkin or sanitary napkin. The material has excellent water-absorbing power.

Dry non-woven fabric of polyester/rayon textile blend, wet non-woven fabric of rayon, pulp fluff, cellulose acetate fibre fluff recovered from plug dust, and a polyethylene film are attacked to fabricate a throwaway old man's napkin. The cellulose acetate fibre has the X-, Y- or I-shaped cross-section and a denier of < 8. 5.12.77 as 145886 (7pp86).

GOUG/ D22 30810U/22 =NL-160-718
Non-spill urinal - with partial destruction effected to facilitate emptying
GOUGET J M (GOU /) 07.09.70-FR-032386 (15.10.69-FR-035310)
*P33 +P32 (16.07.79) *GB1318-769 A61g-09 +A61f-05/44*

Urinal comprises a hollow vessel with a flat bottom and an inclined opening which communicates with the outside. The neck of the opening passes in to a point approximating to the centre of the vessel. The design is such that, regardless of the attitude of the vessel, its contents cannot spill out.
The neck of the opening is connected to the urinal by
nection which is designed to be broken when the con
are required for analysis. Otherwise, the vessel is
posed of. 9.10.70 as 014879(+22.4.70;28.8.70-FR-
027705)(4pp1370).

DRAG- D22 09994R/07 =NL-
Anti-sunburn cream - contains 5-(3,3-dimethyl 2-norbornyli
pentene 2-one as filter
DRAGOCO SPEZIALFAB 08.08.68-OE-007757
*E15 P34 (16.07.79) *NL6900-588 +A61k-07/42*

Compsn, for the protection of human skin against ei
which contains at least 5-(3,3-dimethyl-2-norbovnyl
-3-peutene-2-one.

The photo-protective cpd is pref. used in a concn
1-2 wt.% in sun-cotrous and other cosmetics. 14.1.
000588(4pp549).

ALZA D22 48572T/30 =NL-
Dispenser - functioning by osmotic pressure
ALZA CORP (ALZ -) 13.01.71-US-106161 (13.01.71-US-106
*A96 B07 C03 P33 P34 +Q56 (16.07.79) *BE-778-005 +*
31

A device is designed so that it can be produced cheap
applied on a large scale for delivering an active agen
as a drug, at a controlled speed over a long period,
watery environment, such as a body fluid. It compri
first compartment with a definite permeability for wa
This contains an osmotically active soln, which, dis
in water, has an osmotic pressure gradient relativel
water. A second compartment contains an active age
has an outlet.

The active agent is disperised dependently upon th
crease in the volume of the soln. caused by the osmo
taking up of water from the environment by the soln.

The second compartment is a flexible bag formed
material relatively impermeable to matter. The bag
the first compartment are prepared and positioned re
ly to each other so that pressure is exerted on the ou
of the flexible bag through an increase in volume. Th
thus becomes smaller and the contents are expelled w
osmotically controlled speed. 13.1.72 as 00509(13pp

LESU= ★ D22 57645B/31 ★SU-6
Spongy bone transplant treatment - includes washing
physiological saline soln., to remove marrow before cold stor
LENGD SURG TUBERCUL 08.12.68-SU-288827
P31 (21.09.78) A61b-17

Bone marrow is removed from spongy bone homo tra
plant by washing with physiological saline soln. at 30
to preserve the plastic characterisitcs of transplant a
accelerate the healing and vascularisation of grafted
tissue after transplantation. The material results in
times shorter post-operative therapy period.
Bellendir E.N., Salmagambetov I.V., Bul. 39/25.10
8.12.68 as 288827 (2pp938)

RITR= ★ D22 57646B/31 ★SU-62
Wound, e.g. skin burn, dressing removal - includes
detergent-disinfectant soln. foamed with oxygen at spe
pressure
RIGA TRAUMA ORTHROP 04.04.77-SU-470613
P31 P33 P34 (21.09.78) A61b-17 A61h-33/02 A61m-35

Wound dressing and bandages removal, useful in skin
treatment clinics, includes cutting bandages and treat
around surface with cleansing and disinfecting agents.

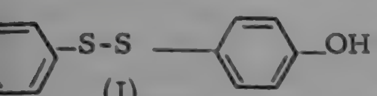
The dressing removal is accelerated if after cuttin
bandages detergent/disinfectant mixt. foamed with ox
at 2-5 atmos. press. is forced into the wound-dressin
for 10-20 min. The foam loosens the dressing and di
fects and oxygenates the damaged tissues which accel
es healing and removes necrotic tissues and mechani
inclusions.
Ozolinshch L.A., Bul. 39/25.10.78 4.4.77 as 47061
pp938)

AUCR= ★ D22 57649B/31 ★SU-62
Thermal skin burns treatment - using initially liquid nitrogen st
to cool damaged tissue to specified temp.
AS UKR CRYOBIOL MED 15.07.76-SU-384137
B06 P31 (21.09.78) A61b-17/36

l skin burns treatment, useful in surgery and
ology, incudes the use of liquid nitrogen coolant
the damaged tissue areas to -6 to 13°C. The
procedure prevents the infiltration of the toxic mat
rom the damaged tissues into the blood stream.
celerates the healing of wound, prevents tissue
s and subsequent plastic surgery.
r N.S., Pekarskii D.E., Isaev Yu.I et al. Bul. 39/
15.7.76 as 384137 (2pp938)

D22 57763B/31 ★SU -629-212
xyphenyl di:sulphide prodn. - from phenol and sulphur
hloride in tetra:chloroethylene in presence of aluminium
as catalyst
PETROLEUM INST 23.03.77-SU-465844
E14 F06 (11.09.78) A01n-09/12 C07c-149

ydroxyphenyl)disulphide has formula (I):



(I)

ed as a fungicidal agent for fabrics, e.g. cotton,
roduced by reacting phenol with S_2Cl_2 in a solvent.
eld is increased by using C_2Cl_4 as a solvent and
s a catalyst (0.002-0.03 mole $AlCl_3$ per mole of
; using phenol and S_2Cl_2 in the stoichiometric ratio;
rrying out the reaction at 5-30°C. The yield is
(72-78% in the known process).
v A.M., Sharov V.G., Bikkulov A.Z. et al. Bul. 39
.78 23.2.77 as 468544 (2pp70)

★ D22 57831B/31 ★US 4161-157
use animal litter container - having tray base with high cover
to prevent liquid collecting in coupling
GEN D J 13.05.77-US-796591
P14 (17.07.79) A01k-01
mal litter container, partic. for indoor use by cats,
ises an upper part with a top and four walls, a lower
define a closed space with the upper part when cou-
gether, and a top access to the space.
e upper part has a projection into the space around
ole periphery to prevent liquid from collecting in the
ngs. The container is pref. of low-density polyethy-
and the projection is a downwardly convex convolution
idened rim. The access is e.g. an aperture in one
ll of the upper part. 13.5.77 as 796591 (7pp1358)

★ D22 57834B/31 ★US 4161-175
l finger or fence splint - with pad adhered to light aluminium
ase with corrugations forming stiffening ribs
NCO MEDICAL CO 29.04.77-US-792311
(17.07.79) A61f-05/04
plint has a base of bendable aluminium sheet with
gations forming one or more stiffening ribs in a patt-
ver width and length of the base to enhance rigidity,
foam pad attached to the base on the opposite side to
b.
he pad is pref. attached by double-sided adhesive
and the sheet is 0.010-0.025 or 0.020-0.035 inch
for finger and fence splints respectively. There are
sinusoidally curved intersecting or non-intersecting
The arrangement provides the stiffness and strength
cker heavier conventional splints. 29.4.77 as 792311
1358)

★ D22 57835B/31 ★US 4161-176
ayer adhesive bandage - with differently coloured peelable
yers to allow best skin colour match
RRIS F E 05.04.77-US-784701
(17.07.79) A61l-15
age comprises an opaque film patch with adhesive on
ide, and ≥1 additional opaque film patch covering
on-adhesive side of the first and removably attached
the outer sides of the patches being of different col-
.

The additional patches are pref. staggered slightly in one direction and the colours match different colours of human skin so that the nearest match can be selected. Each additional patch pref. has an adhesive coating on its inner side, except for a small area near one edge to facilitate peeling. A dressing pad is pref. attached to the adhesive on the first patch. 5.4.77 as 784701 (4pp1358)

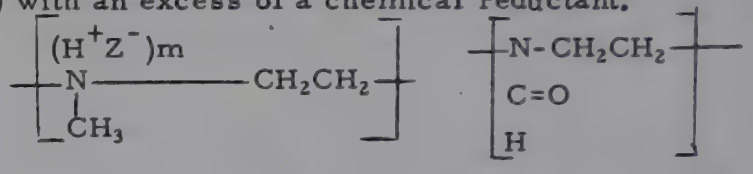
HYMA/ ★ D22 57852B/31 ★US 4161-283
Slow-release liq. volatiliser - with molecular diffusion polymer outer wall covered by peelable diffusion barrier
HYMAN S 03.06.77-US-803369
A92 C03 P34 (17.07.79) A61l-09/04

Unit for dispersing volatiles, e.g. deodorants or insecticides, into the atmosphere comprises peripherally sealed inner and outer walls forming a reservoir for volatile liq. The outer wall is of molecular diffusion polymer with a barrier layer removably attached to the outer surface and imprevious to diffusion.

The inner wall is of different and diffusion-imprevious polymer. The carrier is pref. of Al foil and the inner wall may also have a foil layer. The outer wall is pref. of polyolefin, polyurethane, silicone polymer or vinyl polymer, particularly PVC. 3.6.77 as 803369 (6pp1358)

MERI ★ D22 57959B/31 ★US 4161-581
Preparing linear, unbranched poly-methyl-imino ethylene - opt. as acid salt, giving prod. useful e.g. as bile acid binding agent, flocculating agent, paper coating agent etc.
MERCK & CO INC 29.09.77-US-837980
A14 B04 F06 (A96) (17.07.79) C08g-73/02

Prepn. of a linear, unbranched, non-crosslinked polymer having unit formula (I) (where m = 0 or 1 and Z is a counter anion) comprises reacting a polymer of repeating units (II) with an excess of a chemical reductant.



$$\left[-\overset{(H^+Z^-)m}{\underset{CH_3}{N}}-CH_2CH_2-\right] \qquad \left[-\underset{\underset{H}{C=O}}{N}-CH_2CH_2-\right]$$

(I) (II)

Pref. the process comprises heating (II) with exces HCHO and HCOOH at 30-100°C for ≤ 100 hrs., opt. followed by adding an aq. mineral acid HZ to the system and subjecting the system to reduced pressure distn. to remove reagents and by-prods.

Polymers (I) are useful as antimicrobials, flocculating agents, antistatic agents, electroconductive agents, for coating paper, chelating agents, and bile acid binding agents, as well as in similar applications where their high charge to wt. ratio and fully accessible nitrogen atoms can be used. 29.9.77 as 837980 (7pp914)

FUJI ★ D22 57994B/31 ★WP 7900-451
Dispersing aromatic deodorant - by placing in air passage of vacuum cleaner
FUJISAWA PHARM IND KK 29.12.77-JA-160354
E13 P34 (26.07.79) A61l-09
Full Patentees: Fujisawa Pharmaceutical Co. Ltd.; Ogawa and Co. Ltd.

D/S: N(DT, GB, US) + E(FR).

An aromatic deodorant, e.g., consisting of perfume and a sublimable base, is placed in the air passage of a vacuum cleaner and forcibly dispersed when the vacuum cleaner is used.

No special container is necessary, and dispersion is effected over a wide area.

29.12.78 as JA0067 (8pp1412)
(J) ISR: J63015328; J52019965; J50117666; J49094847.

See Also

D13 J7 9018332 D21 GB 2012773

D23: OILS; FATS; WAXES

FIRM D23 82738R/44 =DS 2065-324

Unsaturated cycloaliphatic ketones

FIRMENICH SA 17.04.70-CH-005725 (07.05.69-CH-006976)
*B05 C03 E15 (D13) (26.07.79) *BE-750-049 C07c-175*

2,6,6-Trimethyl-1-crotonylcyclohex-2-ene-1-ol is new. Prepn. of the cpd. comprises heating 2,6,6-trimethyl-1-crotonyl-1,2-epoxycyclohexane with an acid catalyst, esp. mineral or organic acids or an acidic diatomaceous earth, opt. in an inert solvent.

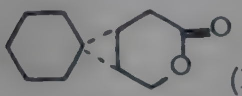
The prod. is used as a perfume or perfume additive, and as a flavouring agent or additive in drinks, foods and nutrients. 6.5.70 as 065324Div. ex 2022216(+8.8.69, 14.4.70-CH-012065, 005559(5pp047).

FIRM ★ D23 56570B/31 ★DT 2902-140

Cyclohexyl pentanolide derivs. for perfumery - are prepd. from cinnamaldehyde and ethyl vinyl ether reaction prod. or from cyclohexyl cyclopentanone (NL 24.7.79)

FIRMENICH SA 20.01.78-CH-000620
E13 (26.07.79) A61k-07/46 C07d-309/30 C11d-03/50 C11d-09/44

New lactones are of formula (I)



(I)

where the cyclohexyl gp. is attached to the C atom in position 3 or 4 of the lactone ring, i.e. 3- and 4-cyclohexyl-pentanolide (Ia and Ib respectively). (Ia) is prepd. by (i) reacting cinnamaldehyde with Et vinyl ether to prepare 2-ethoxy-4-Ph-3,4-dihydro-2H-pyran, (ii) hydrogenation to 3-cyclohexyl-pentane-1,5-diol, pref. under high pressure and in the presence of a metal catalyst, and (iii) heating in the presence of a dehydrogenation catalyst, pref. at 220-320°C using a Cu-contg. catalyst.

(I) are used as active ingredients in perfumes, perfume compsns. and household articles, and for modifying, improving or reinforcing the organoleptic properties of perfumes, perfume compsns. and perfumed articles, esp. having Chypre or Fougere notes. 19.1.79 as 902140 (15pp200).

NAAR D23 69258Y/39 =GB 1549-565

(1,5)-Alkadienols and esters useful in perfumes - are prepd. by reacting (alpha,beta)-unsatd. aldehyde and allyl magnesium chloride and opt. esterifying (NL 19.9.77)

NAARDEN INT NV 15.03.76-NL-002686
*E17 (01.08.79) *DT2711-318 A61k-07/46 C07c-33/02*

1,5-Alkane dienols of formula (I): $R_1CH_2CH_2CH=CHCH(OR_2)CH_2CH=CH_2$ (where R_1 is 1-4C alkyl and R_2 is H, formyl or alkylcarbonyl, where the alkyl has 1-2C) are novel and some have a green and slightly fatty odour and may be used as substitutes for natural fragrance cpds. in perfumes.

Prepn. of (I) comprise reacting an α,β-unsatd. aldehyde $R_1CH_2CH_2CH=CHCHO$, with the allyl-Mg chloride $ClMgCH_2CH=CH_2$ and opt. esterifying the resulting cpd. 14.3.77 as 010705 (4pp393)

TAKS ★ D23 57279B/31 ★J5 4079-203

Tri:ene cpd. useful in perfume compositions - prepd. by reacting quat. phosphonium salt with aldehyde in presence of ammonium salt interphase catalyst

TAKASAGO PERFUMERY KK 01.12.77-JA-144110
E17 (25.06.79) A61k-07/46 B01j-31/02 C07c-01/26 C07c-11/21

New triene cpds. are of formula (I);

R-CH=CH-CH=CH-CH=CH_2 (I) (where R is for a straight-chain 4-8C alkyl or a branched alkyl at one methyl or ethyl gp.). Prepn. of (I) comprises reacting a quat. phosphonium salt of formula (II);

$CH_2=CH-CH=CH-CH_2PR'_3X$ (II) (where R' is aliphatic, alicyclic or aromatic gp. and X is halogen) with an aldehyde cpd. of formula (III);

RCHO (III) in water and an organic solvent immiscible with water, in the presence of a basic cpd., while employing a quat. ammonium salt as an interphase movable catalyst.

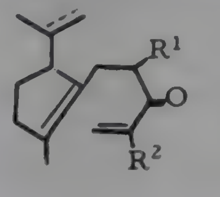
(I) has a galbanum-like perfume, and is well har
ised with other perfumes. It can be added to a wide
iety of perfume-compsns.. 1.12.77 as 144110 (5pp

GIVA D23 40236V/22 = J7

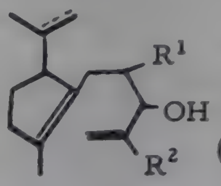
(3-Keto-4-pentenyl)-1-cyclopentene perfumes - prepd. by o
the 3-hydroxy-4-pentenyl derivs

GIVAUDAN L & CIE SA 15.11.72-CH-016605
*E15 (06.07.79) *DT2353-146 A61k-07/46 C07c-49/61*
45/16

Perfumes (I) (where R^1 and R^2 each is H or lower a



(I)



(I)

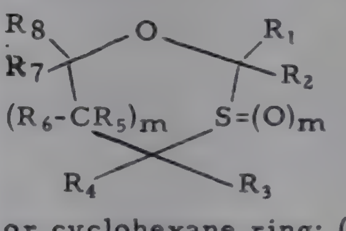
the dotted lin
presents an o
additional bor
prepd. by oxi
a cpd. (II) pr
chormic acid,
as Jones reag
with activated MnO_2, SO_3, AgO or $AgCO_3$. (I) have a
en background note, and are used in perfumery, as
ers of perfume compsns. esp. in 0.1-10 wt. % conc
in 0.001-0.1 wt.% concn. as additives for perfumin
cosmetics, detergents, aerosols, creams, soaps an
ions, and as starting materials for other perfumes.
13.11.73 as 127642 (+15.11.72-CH-016605) C07c-49
45/16 A61k-7/46 (6.7.79) L GIVAUDAN & CIE (5pp)
(J49080040)

FIRM D23 13411X/08 = NL -

Synthetic organoleptic oxathi(ol)anes - useful in fo
feedstuff, tobacco, pharmaceutical compsns. or as or in perf

FIRMENICH SA 16.01.75-CH-000520 (02.08.74-CH-01061
*B07 C03 E13 +P15 (D13) (16.07.79) *DT2534-162 A2*
A24b-15/04 C11b-09

Aroma preps or aromatic foodstuffs, feedstuffs, dr
pharmaceutical preparations, tobacco prods, perfu
perfumed prods, contain one or more 1,3-oxathiane
1,3-oxathiolanes (some of which are new) of genera
-la (I):



In the formules: (a) m an
or 1; R_1-R_8 = H or opt. sa
opt. branched (1-11C) alky
n = 1; m = 0 or 1; R_1-R_4 =
signified; R_5 and R_7 = H;
+ C-atoms at position 5 a
opt. methyl-substd. cycl
or cyclohexane ring; (c) n = 1; m = 0 or 1; Rγ, R_3, R
R_7 = H; R_2 = H, methyl, ethyl or propyl; R_4 = p-met
nyl, p-methoxy-phenyl, phenyl or opt. methyl-substd
hexenyl; R_8 = methyl, ethyl or propyl; (d) n = 1; m =
R_1, R_3, R_5, R_6 and R_7 = H; R_2 = as signified for R_4 in (
and R_8 = H, methyl, ethyl or propyl. The incorpora
of 1,3-oxathiane in codliver oil is excluded.

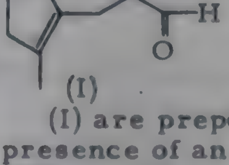
(I) have organoleptic properties and may be used
prepn, of perfumes and for the modification of scent
taste of various products. 29.7.75 as 009027(16pp2

GIVA D23 60546U/41 = NL -

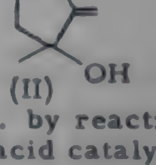
Perfumery compsns - contg 3-isopropyl - or 3-isop
cyclopentene derivs

GIVAUDAN L & CIE SA 17.03.72-CH-004040
*E15 (16.07.79) *DT2313-017 A61k-07/46 C07c-45 C07*
C11b-09

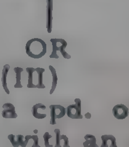
New 1-methyl 3-isopropyl or -isopropenyl 2-substd.
cyclopentenes, which have fragrance properties, ar
formula (I).



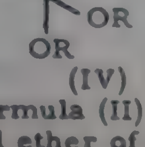
(I)



(II)



(III)



(IV)

(I) are prepd. by reacting a cpd. of formula (II) i
presence of an acid catalyst, with an enol ether of fo

cpd. obtd. may be catalytically hydrogenated to the
ponding 3-isopropyl derivative.
ne formula R_1 is H or 1-3C alkyl; R_2 is H or R_1 and
ther may form a 2-3C alkylidene; R is alkyl and R_3
lkyl or alkenyl. 23. 2. 73 as 002559 (5pp549)

★ D23 B/31 ★RU --64-046
ing castor oil seed crusher efficiency - by elastic mounting of
blades to eject the plant seeds
R MECANIC AGRIC 28.01.74-RU-077433
(15.06.78) A01f-11

★ D23 B/31 ★RU --66-988
nimal fat hydrogenation with nickel catalyst - in 2 steps, with
catalyst addn. and iodine index redn. below unity
IREA INTR 12.02.74-RU-077621
30.01.79) C11c-03/12

= ★ D23 57774B/31 ★SU -629-223
nation of fats, esp. mink fat, by three stage crystallisation -
st-stage introduction of stearic acid and then addition of
lisation material from preceding stage in following stages
EMISATION DES BUR 10.05.77-SU-483864
30.08.78) C11b-07

esp. mink fat, is fractionated by melting it and sub-
ng to fractionation in three stages; in each stage the
culty soluble triglycerides are crystallised and sepd.
the readily soluble fractions. This method is ren-
d more effective by introducing into the melt stearic
in the first stage; introducing during the second stage
e difficultly soluble fraction sepd. during the first
e; and introducing during the third stage some diffic-
soluble fraction sepd. during the second stage. The
cultly soluble substances are introduced in the second
the third stage in amts. of 1-15 wt.% (w.r.t. the total
of the fat) each time. By this method the yield of the
k oil is increased.

ets M.V., Lozheshnik V.K., Kreishmanis Ts.R. et
Bul.39/25.10.76 10.5.77 as 483864 (2pp70)

A= ★ D23 57775B/31 ★SU -629-224
lourisation of alcoholic solns. of essential oils for perfumery -
copolymer of N-vinyl pyrrolidone or N vinyl caprolactam with
hylene glycol methacrylate as adsorbent
OVAYA ZARYA PERFUM 13.04.77-SU-477273
91 (A14 A23) (30.08.78) C11b-09

olourisation of alcoholic solns of essential oils used in
perfumery by means of an adsorbent is improved by
ng as an adsorbent an insoluble copolymer of N-vinylpyrrolidone or N-vinylcaprolactam with triethylene glycol dimethacrylate, whereby the loss of valuable aromatic substances is reduced, whilst coloured impurities are effectively removed. Highly transparent solns. are obtd. and there is no need for any additional filtration.

Gavrilova T.F., Livshits A.Ya., Nikiforova L.Ya. et al
Bul. 39/25.10.78 13.4.77 as 477273 (2pp70)

LABO D23 27889B/15 =US 4161-483
Hydrogenating oils, esp. cooking oils, using nickel catalyst - in presence of a specified amt. of a basic nitrogen cpd. to avoid formation of solid products
LABOFINA SA 02.12.77-LU-078621
*(D13) (17.07.79) *BE-872-477 B01j-31/12 C11c-03/12*

A natural oil is partially and selectively hydrogenated by treatment with hydrogen in the presence of a nickel catalyst, and an amt. of an organic N-contg. basic cpd. equiv. to 5-40 atoms of nitrogen per 100 atoms. of nickel.

Hydrogen is at a hydrogen pressure and a reaction temp. sufficient to obtain a liq. hydrogenation prod. rich in monoenic cpds. and with a low content in trans-isomers conjugated dienic cpds. and satd. cpds.

Esp. used in the stabilisation of natural or vegetable oils, such as soybean oil, sunflower oil, solza oil and corn oil. 31.7.78 as 929540 (4pp931)

UNIL D23 46994Y/27 =US 4161-484
Sepg. solid particles from fats, esp. in fractional crystallisation - using uniform agitation until agglomeration takes place
LEVER BROS CO 08.01.76-GB-000651
*(17.07.79) *BE-850-088 C11b-03 + C09f-05/10*

Fatty material is fractionated by cooling the fatty material from a wholly liq. condition in a cooling zone to a temp. at which partial crystallisation of the fatty material takes place, while aggomeration of crystals resulting from homogeneous agitation occurs in the cooling zone. Fat crystals formed are then separated out from the remaining liq. fatty material.

Cooling zone is defined between the inner walls of a chamber and a stirrer having a smooth profile mounted in the chamber. Pref. homogeneous agitation is provided by a cylindrical stirrer concentric with the chamber.

Heavy crops of crystal fractions can be separated contg ⩽ 35 wt.% solids. Esp. used for the prepn. of margarine fats from vegetable fats, which may be hardened before or after fractionation. 28.3.78 as 890888 (+4.1.77-US-756687) (4pp931)

See Also

D13 GB 1549731 D13 GB 1549732

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

IL ★ D25 56302B/31 ★BE -873-772
ay dried detergent powder compsn. prodn. - by mixing aq. soln.
sodium silicate to detergent contg. sodium aluminosilicate prior
tomising
UNILEVER NV 01.02.78-GB-004052
(30.07.79) B01j C11d

e process in which a detergent suspension contg. a sod-
m aluminosilicate is formed in mixer/receiver followed
spray drying via an atomiser comprises mixing an aq.
ln. a suspension of sodium silicate with the detergent
spension at a point intermediate between the mixer/rec-
ver and the atomiser.

Used to prepare washing powders, the process enables only a short contact between the sodium silicate and the sodium alumino silicate, thereby avoiding interaction in which the benefits of adding the sodium silicate can be lost. 29.1.79 as 873772 (15pp597)

LANK ★ D25 56559B/31 ★DT 2901-927
Cleansing mixt. forming quick-breaking emulsion with oil - contains fatty alcohol ethoxylate and/or higher alkyl phenol ethoxylate and an opt. lower alkyl substd. phenol ethoxylate (NL 23.7.79)
LANKRO CHEM LTD 15.12.78-GB-048773 (19.01.78-GB-002160)
A97 P43 (26.07.79) B08b-03/04 C11d-01/82

Detergent compsns., used for removing oily contaminants from a substrate, contain, by wt., (a) 35-80 (50)% 8-18C fatty alcohol ethoxylate, (I), contg. 2-10 (4) added C_2H_4O mol and/or a higher, i.e. 8-12 (9) C-alkyl-phenol ethoxylate (III) contg. 3-10 added C_2H_4O mol.

The compsns. can be used for (i) cleaning oil sludges from oil storage- or transport tanks; (ii) cleaning and degreasing metals, e.g. engines; (iii) removing printing inks from paper felt washing machinery and (iv) dewaxing car bodies. The compsns. are capable of converting the oily contaminants or sludges and water into quick-breaking aq. emulsions, which separate into an aq. layer, which can be removed, and an oily layer, which can opt. be reused. 18.1.79 as 901927 (11pp200).

MINN ★ D25 56569B/31 ★DT 2902-130

Fat-removing cleansing pad - is impregnated with compsn. contg. acrylic resin binder and nonionic ethoxylated and/or amide surfactant

MINNESOTA MINING CO 19.01.78-US-870021

A97 P28 Q17 (26.07.79) A47l-13/16 B60s-03 C11d-01/66 C11d-03/37 C11d-10/02 C11d-17/04

Cleansing pad is coated with a compsn. consisting of water-insoluble acrylic resin, (I), as binder, admixed with foam-forming, fat-dissolving non-ionic surfactant, (II), in wt. ratio (I):(II) 3:1 to 1:8.

The pad is made by (1) working a liq. coating compsn. contg. (a) acrylic resin latex, (b) sufficient stabilising solvent contg. OH end gps., esp. $HOCH_2CH_2OEt$, to prevent coagulation or gelling within 48 hrs. and (c) (II), into a porous cleansing pad, and (2) drying the coating under conditions for removing solvent and hardening binder.

The pad can be used for cleaning fatty kitchen equipment or cars. Useful foam life is prolonged. 18.1.79 as 902130 (32pp200).

KAOS ★ D25 56577B/31 ★DT 2902-236

Detergent compsn. for washing textiles - contains sodium percarbonate bleach stabilised with water-insoluble aluminosilicate opt. contg. cations exchangeable by calcium etc.

KAO SOAP KK 25.01.78-JA-006877 (25.01.78-JA-006876)

A97 E33 (26.07.79) C11d-03/39 D06h-03/02

Bleaching detergent compsn. consists of (a) water-insoluble aluminosilicate having degree of crystallisation 0-75 (0-50)% and formula $X(M_2O).(Al_2O_3).Y(SiO_2).W(H_2O)$ (I) (where M is Na and/or K; $0.7 \leqslant X \leqslant 2.2$ and W is 0 or a +ve No.) or a water-insoluble aluminosilicate contg. exchangeable cations, which are partly substd. by Ca- and/or Mg ions, and having formula $A(M^{+}_{2}O).B(M^{2+}O).(Al_2O_3).C(SiO_2).D(H_2O)$ (II) (where M^+ is alkali and M^{2+} is Ca and/or Mg; A, B, C and D are the component mol nos.; A and B are +ve nos. satisfying the equations $0.7 \leqslant A + B \leqslant 1.2$ and B/ (A+B) = 0.001-0.1, $1.6 \leqslant C \leqslant 2.2$ and D is a +ve No.), (b) an anionic, nonionic and/or amphoteric surfactant and (c) Na percarbonate.

The compsns. can be used for cold-washing textiles. Na percarbonate storage stability is improved. The compsn. has high bleaching activity even at low temps. 20.1.79 as 902236 (36pp200).

PROC D25 16452Y/10 =GB 1549-648

Dipolar detergent cpds. contg. sulphonium gp. - are stable under alkaline conditions

PROCTER & GAMBLE CO 05.09.75-US-610595

*E19 (01.08.79) *BE-845-850 C11d-01/88 +C07c-141/02 C08g-65/32 C11d-10/04*

Novel detergent cpd. is an ethoxylated sulphonium zwitterionic cpd. of formula $R_1R_2S^+\text{-}R_3O(CH_2CH_2O)_nR_4A^-$ (I), where R_1 and R_2 are each 1-30C cycloalkyl, alkenyl, aryl, aralkyl or alkaryl gps.; R_3 is 2-8C alkylene, alkenylene, arylene or alkarylene; R_4 is 1-8C alkylene, alkenylene arylene or alkarylene; A is a water-solubilising anionic gp.; n is 1-100.

Pref. R_1 is 12-22C alkyl; R_2 is 1-3C alkyl or benzyl; R_3 is 2-4C alkylene, 3-4C hydroxy-substd. alkylene or arylene; R_4 is ethylene; and n is 4-50. Pref. A is sulphonate, sulphate or carboxylate.

These compsns. show high clay soil removal, even in very low built or unbuilt detergent systems, and are stable under alkaline conditions. 3.9.76 as 036612 (17pp931)

ARUB- ★ D25 57121B/31 ★J5 4

**Wash compsn. for cleaning machine oil stains - is pre
blending nonionic- and/or cationic surfactant with amp
surfactant**

ARUBOUSU YAKUSHO KK (MIYO) 05.12.77-JA-146307

A97 E16 (E12) (23.06.79) C11d-01/94

Wash compsn. is prepd. by blending of 0.3 - 2.0 (0
0.9) pts.wt. nonionic surface active agent having HL
value 14-17 and/or 0.01 - 0.2 pts.wt. of cationic su
active agent with 1 pt.wt. of amphoteric surfactant
formula $R\text{-}CH(OH)\text{-}CH_2\text{-}N\text{-}((CH_2\text{-}CH_2O)_nH)(CH_2CH_2C$
(where R is 8 - 16C alkyl, n = 1-4, and M is alkali
metal, NH_4 or organic amine).

Compsn. has high cleaning power, is safe, non-s
ative and germicidal. 5.12.77 as 146307 (12pp170).

MARU/ D25 77548T/49 =J7 9

**Detergent compsn - contg amphoteric surfactants giving a
and anti-soiling finish**

MARUMO H M (MAR/) 26.01.72-JA-009019

*E16 (06.07.79) *DT2222-899 C11d-01/88 +A61k-07/06*

The compsn. contains (A) ≥1 amphoteric surfactant
formula (1) $A(B)N\text{-}C(X)(Y)\text{-}CO_2H$ (where A and B ar
$R\text{-}CH\text{-}[O\text{-}(CH_2CHR'O)_pH]\text{-}CH_2\text{-}$ (ii) or $\text{-}(CH_2CHR'O)$
(iii) (R is 2-28C hydrocarbyl and R' is H or CH_3); X
H or 6-30C hydrocarbyl, Y is H, CH_3, $\text{-}CH_2CH(CH_3$
benzyl, $\text{-}(CH_2)_nCO_2H$ (n is 1-5) or $\text{-}(CH_2)_n\text{-}N(D)E$ (D
E are H, (ii) or (iii), p and q are 0-50); when X is H
≥1 of A, B, D, E is (ii) or when A, B, Y are all H, X
2-28C hydrocarbyl) and (B) an improved amphoteri
factant as active ingredient obtd. by amphoterising
cpd. of formula (2) $R\text{-}CH(OZ)CH_2\text{-}[\text{-}NX(CH_2)_m]_n\text{-}$
(where R is 4-30C hydrocarbyl, Z is H or (ii) where
1-100, X, Y, W are H, $R\text{-}CH(OZ)\text{-}CH_2\text{-}$ or (ii), m is
n is 0-5, X, Y, Z, W can all be different). (1) and (2)
its amphoteric form can be in the form of their org.
ammonium, (alkali) metal or acid complex salts. Co
nents act as foam stabilisers etc. for other deterge
and are non-irritant to skin, (2) also has antibacteri
and deodourising props. 26.1.72 as 009019 C11d-1/
Abld-7/06 (6.7.89) MARUMO, H.M (5pp)(J48079213

TAKA/ D25 36607W/22 =J7 9

**Detergent contg. hydroxyalkyl-contg. amphoteric surfactant
opt. anionic, cationic or nonionic surfactants**

TAKAI M 25.01.73-JA-010533

*(06.07.79) *J49099-509 +A61k-07/06 C11d-01/88 C23g*

Hydroxyalkyl -contg. amphoteric surfactants opt. co
anionic, cationic, or nonionic surfactants were used
prepd. cleaning compsn. In an example, a detegent
prises 20% $C_{10}H_{21}CH(OH)CH_2N^+Me_2CH_2CO_2^-$ and 80%
der (Na silicate 13, Na carbonate 7, and Na sulphate
80%). 25.1.73 as 010533 C11d-1/88 A61k-7/06 C23g
1/24 (6.7.79) TAKAI M (19pp)(J49099509)

DEUT/ ★ D25 B/31 ★OE 75

Dish washing agent

DEUTSCHER F 22.11.74-LU-071340

(15.07.79) C11d-03/02 20.11.75 as 008862

FMCC D25 07513W/05 =SU -

**Sodium dichloro isocyanurate dihydrate prepn - by
anhydrous sodium dichloro isocyanurate with a hydrated salt**

FMC CORP 18.07.73-US-380459

*E34 (14.09.78) *BE-817-721 C07d-251/36 +C11d-07/54*

Sodium dichloroisocyanurate (I) dihydrate is prepare
mixing (I) contg. 11% water of hydration with not m
than a stoichiometric amt. of hydrated salt (II) whic
verts (I) to its dihydrate, heating to ambient - 70 °C
50 °C) to initiate and complete exothermic reaction a
covering a mixture of hydrated (I) contg. 11-14.1 wt
water, and the residue of (II). The process limits
content to a min. and provides a free flowing stable
uct with long storage life suitable for use as a bleac
detergent formulations. It is resistant to thermal d
osition.

Berkovich, S., Mesia, R.N. Bul. 38/15.10.78. 17.
as 045736 (3pp)

D25 24173B/13 =US 4161-449
carpet cleanser and deodorant compsns. - contain
inorganic salt carrier, agglomerant, volatile air-freshener
antistatic agent
ICK IND INC 02.09.77-US-830238
-P34 *(17.07.79) *DT2838-089 D06m-11/04*
dered carpet-treating compsn. is prepd. contg. a
f 40.0-98.99 wt.% of an inorganic salt carrier, 1.0-
.% of an agglomerating agent, 0.01-20.0 wt.% of a
odorous agent, and $\leqslant$ 15wt.% of an antistatic agent.
rganic salt carrier is a sulphate, chloride, carbon-
carbonate, borate, citrate, phosphate, nitrate or a
f them, such that the particles of the carrier have
06-0.25 mm. Agglomerating agent is starch, a sili
wder, grain flour, wood flour, talc, pumice, a clay
ium phosphate.
mpsn. can be applied to the carpet surface and
deodorising, antistatic and antisoil redeposition
teristics to it. 2.9.77 as 830238 (4pp931)

D25 57900B/31 ★US 4161-455
nt compsns. contg. pptd. silicon di:oxide - pptd. by addn. of
alkali metal silicate, then conditioning with alkali metal

ER J M CORP 30.05.78-US-911003 (12.03.75-US-557707)
(D21) (17.07.79) C11d-03/08

New detergent compsns. contain a finely divided, amorphous pptd. SiO_2 (I) as an agent to improve flow props. (I) has: (a) wet cake H_2O content 77.9-83.5% (77.9-83.2% in presence of metal cation (J); 79.8-83.5% without M); (b) structure index 350-505 (350-495 with M; 395-505 without M); (c) oil absorption 190-212 cc/100 g (193-212 with M; 190-202 without M); (d) void vol. 3.19-4.44 ccHg/g SiO_2 (3.19-4.44 with M; 3.55-4.14 without M); (e) BET surface area 120-220 m^2/g (153-220 with M; 120-153 without M); (f) % friability 20-98% (28-93% with M; 20-98% without M). (I) contains $\nless$ 90% SiO_2, and M is Al, Mg, Zn or Ca.

Inexpensive (I) have partic. desirable physical and chemical props. for incorporation into detergent compsns., and may be used to convert liq. non-ionic surfactants to dry free-flowing powders. (I) also eliminate 'plume' prodn. Although (I) have reduced wet-cake H_2O content (and are hence heaper) they are also suitable as reinforcing agents for rubber and elastomers, in clear and opaque dentifrices paints and paper, etc. 30.5.78 as 911003 Div. ex. 3893840 (+12.3.75; 16.5.77-US-557707; 796913) (31pp478)

CPI INDEXES

TING PATENTEE INDEX (II)

by section and overall, lists all current patents in ee code order and, within a given patentee, in earliest date order. The first line gives patentee code, priority date, patentee name, CPI classes and finally rent patent number. The second line gives the first the title, followed by the accession number.

```
EIGE/ 24.01.75  EIGENMANN L    A93   *DT 2602-948
   Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75  EIGENMANN L    A93 L02(A21)  *DT 2602-947
   Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

CLASS INDEX (IV)

ly only. Headings are all the CPI s within the section to which an ng Bulletin relates, arranged in rical order. Posted under each class ng is a list, in country then patent er order, of all basic or equivalent ments referenced or cross- enced under that heading.

```
   M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

SIC NUMBER INDEX (V)

kly by section and overall, lists all es by accession number. Each ing consists of the accession ber in bold, followed by the CPI on letters. There then follows a of all the family members, mencing with the basic and ning with the current week's nt. For each family member the week of issue is quoted, and a sign indicates that a multiple ity has been claimed.

```
09125-X ACDF
  US 3933-788   X05+
  CA -990-674   X26
09192-X BC
  US 3933-948   X05
  BE  -832-423  X10
  NL 7509-762   X10
  DT 2535-514   X11
  SW7509-042    X15
  NO7502-837    X16
  SF 7502-292   X19
  ZA 7504-766   X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also contg
natural rubber, hydrated                          49862X/26  *US 3963-654
   CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H01
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifying
earth in dams                                     49433X/26  *DT 2554-327
   CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made by
cultivating a species of                          48076X/26  *CA -990-668
   CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will be given for each such patent number.

COUNTRY CODES

For patent number (not priority) purposes, DS distingu accepted West German specifications (DAS) fron unexamined applications (OLS) which are given the n DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined o present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU
Japan, ex.	J7	Yugoslavia	YU

.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =GB 2012-751
cyl or alkyl fortimicin A and B derivs. - 51124B/28

22.12.76 ADAMBRAU GMBH D16 *OE 7609-561
lcohol content beer mfr. - B/31

3.08.71 AGENCY OF IND SCI TECH D16 =J4 8085-786
entative prepn. of alpha-galactosidase - 57334B/31

3.08.71 AGENCY OF IND SCI TECH D16 *J7 9018-353
entative prepn. of alpha-galactosidase - 57334B/31

27.02.74 AGENCY OF IND SCI TECH A97 D15 J01 =J7 9018-236
i-resistant nitrohumic acid adsorbents - 61573W/37

25.00.75 AGENCY OF IND SCI TECH D13 (D16) =J7 9018-349
mposing lactose in milk and dairy products - 62645X/33

28.11.77 AGENCY OF IND SCI TECH D16 *J5 4076-891
very of alpha-1,6-glucosidase from fermentation broth - 56823B/31

29.11.77 AGENCY OF IND SCI TECH A96 D16 *J5 4076-892
ion of lipase - 56824B/31

05.12.77 AGENCY OF IND SCI TECH D15 E16 *J5 4078-303
overing spent froth treating agent from heavy metal complex - 6B/31

15.01.75 AGRIC PROC HYDROMEC D15 *SU -628-095
effluent purificn. unit - 57452B/31

11.10.77 AMER HOSPITAL SUPPL CORP A89 B04 D16 J04 (A96) 844-313
ermn. of isoenzyme(s) having different electric charges - 27886B/15

02.09.77 AIRWICK IND INC D25 E37 =US 4161-449
dery carpet cleanser and deodorant compsns. - 24173B/13

21.03.72 AJINOMOTO KK D16 =J4 8096-340
ivation of basidiomycetes on medium contg. bacillus cell - 57333B/31

21.03.72 AJINOMOTO KK D16 *J7 9018-351
ivation of basidiomycetes on medium contg. bacillus cell - 57333B/31

23.10.72 AJINOMOTO KK D21 E16 =DS 2353-088
inocarboxylic acid diesters - 35799V/19

11.06.74 AJINOMOTO KK D13 =J7 9018-343
ter for frozen fried food - 31009X/17

02.12.77 AJINOMOTO KK B04 D16 *J5 4076-890
ng enzymes - 56822B/31

23.05.77 AKSELROD L A D16 *SU -628-939
er distilling column automatic control - 57660B/31

16.02.76 ALESHCHENKO V I D16 *SU -629-230
ne prodn. waste mash distillation column control - 57781B/31

25.04.66 ALFA-LAVAL AB D13 =DS 1617-968
steurising or sterilising plant - 24375R/15

- 29.10.76 ALMASFUZITOI TIMFOLDGYAR D16 E31 M25 =DS 2747-
dium removal from Bayer-process red mud - 33735A/19

= 28.01.77 ALTAI BUTTER CHEESE D13 *SU -628-874
eese pressing process - 57639B/31

- 29.10.76 ALUMINIUMIPARI TERV D16 E31 M25 =DS 2747-436
dium removal from Bayer-process red mud - 33735A/19

13.01.71 ALZA CORP A96 B07 C03 D22 =NL -160-726
spenser - 48572T/30

Y 23.01.78 AMERICAN CYANAMID CO A14 D15 (A97) #DT 2802-709
ale inhibition using anionic polymer(s) - 15726A/08

A 14.01.78 AMF INC D18 =NL 7900-250
econstituted tobacco from suspension of tobacco powder in adhesive - 210B/20

A 11.01.79 AMF INC D18 =GB 2012-552
econstituted tobacco from suspension of tobacco powder in adhesive - 210B/20

R 15.09.75 AGENCE NAT VALORISA A14 D15 J01 (A88) *GB 1549-
C-acrylic acid graft copolymer selective permeability membrane - 639B/31

/ 25.01.78 APEL G D15 E36 J03 *DT 2803-063
q. ozonising device - 56482B/31

/ 25.01.78 VAZQUEZ ARIAS J D15 =DT 2803-066
revention of corrosion and scaling inside water pipes - 52561B/29

O 26.03.75 ARMOUR PHARM CO D21 E32 (E12 E33) =GB 1549-617
nti-perspirant contg astringent complex - 77838X/42

B- 05.12.77 ARUBOUSU YAKUSHO KK A97 D25 E16 (E12) *J5 4078-
Vash compsn. for cleaning machine oil stains - 57121B/31

H 31.10.74 ASAHI CHEMICAL IND KK D13 J03 =J7 9018-347
esalting of milk or whey - 46933X/25

H 31.10.74 ASAHI CHEMICAL IND KK D13 J03 =J7 9018-348
Continuous desalting of milk or whey - 46934X/25

H 03.12.77 ASAHI CHEMICAL IND KK D15 *J5 4078-858
urificn. of water contg. excreta and waste from live fish - 57192B/31

O- 24.01.78 ASKO-UPO OY D15 *DT 2902-209
iological dry toilet - 56576B/31

R= 15.07.76 AS UKR CRYOBIOL MED B06 D22 *SU -628-905
hermal skin burns treatment - 57649B/31

T/ 29.08.74 AVETIKOV G M D14 *SU -628-872
Heat-treatment of sausages during smoking - 57637B/31

T- 25.04.75 BACTEX INC B04 D16 =GB 1549-345
Neisseria gonorrhoeae filament crystals and piline GC isolation, - 33025X/45

BADI 28.05.75 BASF AG A96 B04 C03 D22 (A14 B06) =DS 2523-618
Polyvinylpyrrolidone-iodine prepn. - 16823X/10

BADI 05.08.75 BASF AG C03 D13 E15 =GB 1549-389
Canthaxanthine prepn. from echinenone or (retro dehydro)carotene - 09377Y/06

BADI 05.08.75 BASF AG C03 D13 E24 =GB 1549-643
Echinenone prepn. by oxidn. of (retro-dehydro)carotene - 09376Y/06

*BADI 28.04.78 BASF AG A97 D22 (A14) *DS 2818-767
Polyvinyl pyrrolidone-iodine prodn. by direct reaction - 56356B/31

BAEC- 12.01.78 BAECK ENG D15 =NL 7900-224
Sepg. pig slurry into clean water and compost - 29788B/16

*BANY 02.12.77 BANYU PHARM CO LTD B04 D16 J04 *J5 4076-893
Isolation of cholesterol oxidase from culture - 56825B/31

BARN- 11.12.75 BARNANGEN AB B05 D13 E17 =OE 7609-182
Sorbitol and xylitol compsn. for sweetening edible prods. - 29152Y/17

BAUM- 15.12.77 BAUMGARTNER PAPIERS D18 F04 =SW 7812-656
Cigarette filters prodn. - 29786B/16

BECI 01.07.76 BECKMAN INSTRUMENTS INC B04 D16 J04 =US 4161-425
Enzyme reagent for cholesterol assay - 77617Y/44

BEEC 12.11.77 BEECHAM GROUP LTD B02 C02 D22 =J5 4076-593
3-Hydrocarbyl:sulphinyl-7-oxo-1-aza bi:cycloheptene derivs. - 47511B/26

BEHW 24.12.74 BEHRINGWERKE AG B04 D16 =OE 7509-802
Adsorbed pertussis antigen - 52453X/28

BEHW 27.10.77 BEHRINGWERKE AG B04 D16 =FR 2406-999
Stabilising meningococcal polysaccharide for use in vaccine - 33342B/18

*BEKI 03.01.77 BELORUSS KIROV TECHN INS D16 *SU -628-169
Microorganisms culture unit - 57525B/31

*BEKI 10.01.77 BELORUSS KIROV TECHN INS D16 *SU -628-170
Microorganisms culture unit - 57526B/31

*BEKI 21.04.77 BELORUSS KIROV TECHN INS D16 *SU -629-228
Microbiology industry foam breaker - 57779B/31

*BELM/ 29.10.77 BELMONTE N D15 *FR 2407-644
Automatic self-cleaning grill for rough screening water, effluent etc. - 56638B/31

*BENY 25.01.78 BENTLEY LABS D22 *DT 2853-614
Implant consisting of collagen coated carbon esp. fibres - 56534B/31

*BEST- 25.11.77 BEST SHOJI KK C03 D13 *J5 4076-839
Improving texture of processed foods - 56812B/31

BIOC- 24.01.78 BIOCELL SRL D23 (D13 D21) =DT 2902-235
Fractional crystallisation of fats esp. butter and palm oil - 40648B/22

BLUE- 08.03.76 BLUE WING CORP C03 D13 (C04) =OE 7701-555
Ruminant feed contg. albumin and other proteins - 52220Y/30

BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =FR 2407-263
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18

BOEF 14.12.77 BOEHRINGER MANNHEIM GMBH B04 D16 =DK 7804-892
Storage-stable cholesterol:oxidase preparations - 56929A/32

BOHT 19.07.75 BOHME DR T KG D18 =GB 1549-688
Leather and animal skin processing into furs(SW140277) - 18780Y/11

BORA- 16.12.77 BORAX HOLDINGS LTD A97 C03 D22 F09 =SW 7812-874
Synergistic wood preservative compsn. - 49370B/27

*BRBL 25.01.78 BRAUNSCHWEIG MASCH D17 *DT 2803-160
Continuous centrifuge for sugar prodn. - 56503B/31

BROV 29.08.69 BBC BROWN BOVERI AG D15 J01 =NL -160-933
Condensing water vapour contg a small - 16984S/09

BRPE 25.02.77 BRITISH PETROLEUM LTD C03 D13 =GB 1549-573
Protein-rich animal feed prodn. - 65584A/37

*BRUL/ 14.11.77 BRULE M R D11 *GB 2012-548
Freezable compsn., cookable to sweet souffle - 56663B/31

BUCL 25.10.77 BUCKMAN LABS INC A97 D15 E11 M14 =FR 2407-217
Compsn. used to prevent corrosion and incrustation in aq. systems - 44129A/25

BUCL 25.10.77 BUCKMAN LABS INC A97 D15 E11 M14 =FR 2407-253
Compsn. used to prevent corrosion and incrustation in aq. systems - 44129A/25

BUDA/ 19.10.67 BUDAHN B E D13 =DS 1782-155
Continuous automatic curd-to-agglomer - 56937R/32

BUHL 16.01.78 BUHLER MIAG GMBH D16 =GB 2012-812
Malting kiln barley distribution system - 54755B/30

*BUTT= 28.01.77 BUTTER CHEESE IND RES IN D13 *SU -628-874
Cheese pressing process - 57639B/31

CALI 20.08.70 CHEVRON RESEARCH CO D13 E17 (D22) =J7 9018-332
Extraction and sterilisation of food - 15470T/10

*CALI 31.03.78 CHEVRON RESEARCH CO D21 E17 *US 4161-612
Thio:di:glycolic acid from glycolic, di:glycolic or bromo-acetic acid - 57977B/31

*CASE/ 05.10.72 CASEY D O D15 E36 (D16 E24) *US 4161-514
Compsns. for staining and immobilising microorganisms in water - 57927B/31

*CBLA= 18.04.77 C BLACK EARTH LIVES C03 D13 *SU -628-873
Milk substitute for young farm animals - 57638B/31

CHEM- 20.02.76 ETAB CHEMIARO A82 D18 F08 (A11) =OE 7700-971
Synthetic leather prodn. from animal wastes - 32827Y/19

*CHEM= 10.05.77 CHEMISATION DES BUR D23 *SU -629-223
Fractionation of fats, esp. mink fat, by three stage crystallisation - 57774B/31

*CHTI- 21.02.74 COMB CHIM TIRNAVENI D15 E31 *RU --63-822
Purifying waste waters contg. sulphide and hexa:valent chromium - B/31

CIBA 09.09.76 CIBA GEIGY AG B02 C02 D13 (D22) =OE 7706-462
Papalucandin A and B ether derivs. - 19646A/11

*COIL/ 23.11.77 COILLET D W D15 *US 4161-445
Desalination of warm salt water - 57894B/31

*COIL/ 23.11.77 COILLET D W D15 *US 4161-446
Potable water prodn. from ground water - 57895B/31

COLG 31.07.75 COLGATE PALMOLIVE CO D22 =GB 1549-709
Disposable diaper - 71906X/38

COLG 23.04.76 COLGATE PALMOLIVE CO A96 D22 =FR 2406-965
Babys disposable napkin contg. hydrocollodial polymer - 57573Y/33

COLG 25.10.77 COLGATE PALMOLIVE CO D21 E34 =FR 2406-998
Deodorant stick based on alkali metal bi:carbonate - 18051B/10

*COLG 27.03.78 COLGATE PALMOLIVE CO A96 D22 F07 *BE -875-096
Disposable tampon or towel - 56316B/31

*CONC- 29.04.77 CONCO MEDICAL CO D22 *US 4161-175
Surgical finger or fence splint - 57834B/31

*CONS= 20.12.76 CONSERVE FRUIT DRY D13 *SU -628-956
Centrifugal extractor of vegetable and pit fruit juice - 57671B/31

COOP- 18.01.78 COOP PHARM FRANCAIS D13 =GB 2012-549
ingestible compsn. contg. vegetable fibre and metallic proteinate - 52560B/29

COOP- 18.01.78 COOP PHARM FRANCAI D13 =NL 7900-405
ingestible compsn. contg. vegetable fibre and metallic proteinate - 52560B/29

CORP 28.10.77 CPC INTERNATIONAL INC D13 (D16) =FR 2406-957
Vital wheat gluten and starch mixt. hydrolysis - 35611B/19

CORP 12.01.78 CPC INTERNATIONAL INC D17 E13 (D16) =NL 7900-117
Preparing high purity maltose crystals from starch hydrolysate - 52537B/29

CORP 11.01.79 CPC INTERNATIONAL INC D17 E13 (D16) =GB 2012-767
Preparing high purity maltose crystals from starch hydrolysate - 52537B/29

COUD- 28.10.77 COUDERT ENGINEER SA D14 =FR 2407-135
Sterilising plant for foodstuffs in unsealed packagings - 35684B/19

COUE 22.04.76 COULTER ELECTRONICS INC A97 D16 J04 K05 =GB 1549-464
Uniform liquid coated microdroplets prodn. - 81450Y/46

*CRIS/ 17.01.78 CRISP S A14 D21 L02 M22 (A81 A92 A96 D22) *GB 2012-773
Hardenable carboxylate cement compsn. - 56696B/31

*CSAG- 27.02.74 INST CONSTR AGRICUL D15 J01 *RU --65-839
Sludge dehydration by vertically immersed filters - B/31

*DAIK 02.12.77 DAIKIN INDUSTRIES KK D13 E23 *J5 4076-867
Inhibiting pptn. of phycocyanin pigment from aq. soln. - 56818B/31

DAIL 13.06.74 DAICEL KK A97 D15 K07 =US 4161-447
Removing radioactive cpds. from waste-water - 00436X/01

*DAIL 05.12.77 DAICEL KK A96 D22 F07 (A18) *J5 4078-892
Liq. absorbing material for sanitary articles - 57199B/31

DEGS 01.12.67 DEUTSCHE GOLD & SILBER C03 D13 =NL -160-705
Feedstuff concentrates contng urea or ammonium cpds - 06899H/00

DEGS 31.10.73 DEUTSCHE GOLD & SILBER A97 D25 =OE 7608-690
Improving the wettability of natural and synthetic zeolites - 32456W/20

DEGS 31.10.77 DEUTSCHE GOLD & SILBER D25 E34 =FR 2407-172
Stabilisation of sodium percarbonate particles against moisture - 33354B/18

DEGS 18.11.77 DEUTSCHE GOLD & SILBER D21 M26 =J5 4078-319
Yellow gold alloy - 22149B/12

*DENT- 27.10.76 DENTON IND INC A96 D21 *US 4161-410
Oral, settable dental compsns. - 57873B/31

DERA- 17.08.76 DERAL SA D13 =OE 7705-922
Silaging process for plants for animal feeds - 90092Y/51

*DEUT/ 22.11.74 DEUTSCHER F D25 *OE 7508-862
Dish washing agent - B/31

*DNII 29.11.77 DAINIPPON INK INST CHEM D16 *J5 4076-898
Monascus pigment prodn. - 56830B/31

*DNIN 29.11.77 DAINIPPON INK CHEM KK D16 *J5 4076-898
Monascus pigment prodn. - 56830B/31

DOKO/ 30.08.75 DOKOUPIL J D18 =OE 7606-402
Leather dewatering machine operating without kinking the surface - 16683Y/10

DOLA 00.00.75 DOLORGIT ARNZNEIMITTEL B03 C02 D21 =OE 7608-221
Salts of hexetidine with aromatic carboxylic acids - 32793Y/19

DORO 10.03.69 DORR OLIVER INC D15 =NL -160-730
Continuous sedimentation - 68909R/38

*DOWC 11.04.77 DOW CHEMICAL CO B05 C03 D13 *US 4161-539
Improving growth response in ruminant or milk yield in dairy cattle - 57938B/31

DRAG- 08.08.68 DRAGOCO SPEZIALFAB D22 E15 =NL -160-720
Anti-sunburn cream - 09994R/07

EBAI 04.07.74 EBARA INFILCO KK D15 =J7 9018-677
Regenerating ion exchange resins - 15841X/09

EBAR 08.10.77 EBARA CORP D16 =SW 7904-974
Composting appts. e.g. for municipal garbage - 37125B/19

*EFLO- 27.05.76 EFLO INT LTD D15 *GB 1549-400
Aerobic biological treatment of sewage on small scale - 56643B/

*EISA 29.11.77 EISAI KK D11 *J5 4076-846
Quality-improving agent for noodles - 56814B/31

ELBA- 20.04.76 ELBA MAC FAB BV D17 =NL -160-878
Sugar cubes mfr. - 80694Y/45

ELIL 26.10.77 ELI LILLY & CO B03 D22 E13 =FR 2407-203
2-3-Amino-2-oxo-1-azetidinyl 3-methyl 2- or 3 butenoic acid
31575B/17

ELSA/ 21.12.68 ELSASSER E D12 =NL -160-739
Apparatus for cutting up meat with sickle- - 47077R/26

ESPE 14.10.76 ESPE FAB PHARM PRAPARATE A14 D21 E14 (A96)
7608-646
UV polymerisation of acrylic ester dental compsn. - 38384Y/22

*ESPE 23.01.78 ESPE FAB PHARM PRAPARATE A35 D21 (A96) *DT
534
UV irradiator for curing teeth fillings - 56551B/31

ESPE 23.01.78 ESPE FAB PHARM PRAPARATE A35 D21 (A96)
2012-939
UV irradiator for curing teeth fillings - 56551B/31

ESPE 23.01.78 ESPE FAB PHARM PRAPARATE A35 D21 (A96) =OE
451
UV irradiator for curing teeth fillings - 56551B/31

ETHI 23.04.75 ETHICON INC A96 D22 =GB 1549-666
Surgeons fastener for wounds - 85309X/46

FARB 06.11.68 BAYER AG B07 D21 =DS 1818-044
Toothpastes fillings polishes etc containing ion exchange - 41165

FARB 15.12.77 BAYER AG B07 C03 D16 E19 =DK 7803-499
Stable microorganism preparations for degradation of organic
20031B/11

FARB 16.12.77 BAYER AG A25 C03 D21 E17 =DK 7805-648
Low mol. wt. poly:ol mixt. prodn. - 47327B/26

FARB 20.01.78 BAYER AG D21 E12 (E33) =DT 2802-489
Treating dental ivory esp. dentine lesions - 82086A/46

FARH 08.10.75 HOECHST AG A97 D25 E34 =OE 7607-430
Textile washing process using surfactant washing powder - 25278

FARH 27.04.76 HOECHST AG A97 D25 (A17) =OE 7702-908
Cleaning agents for carpets, textiles, etc. - 82383Y/46

FARH 20.08.77 HOECHST AG D13 E17 (D21 E16) =PT --68-440
Simultaneous prepn. of fatty acid nitrile(s) and glycerol - 18378B/

FARH 19.12.77 HOECHST AG A97 D25 E11 =DK 7805-672
Washing powder with improved detergent auxiliary - 45714B/25

FAZE- 16.01.78 FAZER AB D13 =GB 2012-801
Continuous deodorisation of cocoa butter - 54855B/30

FAZE- 16.01.78 FAZER AB D13 =NL 7900-316
Continuous deodorisation of cocoa butter - 54855B/30

FIRM 07.05.69 FIRMENICH SA B05 C03 D23 E15 (D13) =DS 2065-
Unsaturated cycloaliphatic ketones - 82738R/44

FIRM 02.08.74 FIRMENICH SA B07 C03 D23 E13 (D13) =NL -160-7
Synthetic organoleptic oxathi(ol)anes - 13411X/08

FIRM 16.11.77 FIRMENICH SA D23 E17 =J5 4079-216
5,9-Di:methyl-deca-4,9-di:en-1-al - 39369B/21

FIRM 13.01.78 FIRMENICH SA B05 D23 E15 =NL 7812-253
Cis-10,10-di:methyl-tri:cyclo-(7.1.1.0)-undec-2 en-4-one - 54856B

*FIRM 20.01.78 FIRMENICH SA D23 E13 *DT 2902-140
Cyclohexyl pentanolide derivs. for perfumery - 56570B/31

*FIRS- 05.12.74 1 MAI INTR D18 *RU --67-760
Quickly processing sheep pelts - B/31

FIRS- 06.08.75 FIRST PATENT DEV CO D22 =OE 7605-856
Surgical dressing comprising film forming protein - 09379Y/06

FISO 31.10.77 FISONS CORP D22 =J5 4076-819
Sterilising soln. contg. physiologically acceptable salt and a
37529B/20

*FJIE 06.12.77 FUJI ELECTRIC MFG KK D15 *J5 4079-099
Determination of organic substances in water - 57212B/31

FMCC 18.07.73 FMC CORP D25 E34 =SU -628-825
Sodium dichloro isocyanurate dihydrate prepn - 07513W/05

*FOOD- 30.06.71 FOOD TECHN PROD C01 D13 *US 4161-543
Enhancing the taste threshold of feed for herbivorous an
57941B/31

*FOOD= 25.05.77 FOOD IND CORR COLL D14 *SU -628-371
Safety valve for controlling pressure or vacuum - 57586B/31

FORB/ 15.12.76 FORBERG S D15 E32 K05 =US 4161-513
Titanate ion exchangers prepn. - 46152A/26

FORT- 16.12.77 VEB KOMB FORTSCHRIT D13 =SW 7812-860
Increasing dry solids content of milk products - 39071B/21

*FRIN/ 24.01.78 FRINGS-NABERSCHULTE D16 *DT 2802-907
Malt kiln air conditioning system - 56470B/31

FRIW- 20.05.76 FRIWA BETONWAREN AG D15 J01 =OE 7703-538
Undissolved hydrocarbon sepn. from water - 85000Y/48

6.09.67 FUCHS H D15 J02 =NL -160-792
or for introducing additives to liquids - 48996S/30
12.77 FUJISAWA PHARM IND KK D22 E13 *WP 7900-451
rsing aromatic deodorant - 57994B/31
.12.77 FUJI EIZAI KK A96 D22 F07 (A18) *J5 4078-892
bsorbing material for sanitary articles - 57199B/31

7.12.73 GALLON & CO D13 *US 4161-549
oving flavour of damaged green coffee - 57945B/31
0.01.78 GALLAHER LTD D18 E36 H06 =DT 2902-118
yst for oxidn. of carbon mon:oxide to di:oxide - 54504B/30
0.01.78 GALLAHER LTD D18 E36 H06 =DT 2902-119
lyst for oxidn. of carbon mon:oxide to di:oxide - 54504B/30
0.01.78 GALLAHER LTD D18 E36 H06 =DT 2902-120
king product contg. catalyst for oxidn. of carbon mon:oxide - 6B/30
16.12.77 GAMBRO AB B04 D16 J04 =SW 7714-335
surement of concn. of cpd. in fluid - 47432B/26
08.11.77 GENENTECH INC B04 D16 =PT --68-755
mbining plasmid for transformation of bacteria - 35257B/19
08.11.77 GENENTECH INC B04 D16 =PT --68-756
mbining plasmid for transformation of bacteria - 35257B/19
08.11.77 GENENTECH INC B04 D16 =PT --68-757
mbining plasmid for transformation of bacteria - 35257B/19
23.01.78 GENIE G V D17 =DT 2902-076
ry drum washer for extracting sucrose from beet and cane - 1B/03
23.11.77 GEN MILLS CHEMICALS A11 D22 E16 (A14 A96) =J5 52
rolysed grafted starch-polyacrylonitrile copolymer mixture - 31B/02
28.11.77 GENERAL MILLS INC D13 #J5 4076-859
mix for use in home prodn. of luncheon meats - 13941A/07
28.11.77 GENERAL MILLS INC B05 D13 *US 4161-517
que inhibiting and removing chewing gum - 57929B/31
13.08.75 GENERAL FOODS CORP B05 D13 E14 =GB 1549-384
calorie sweeteners based on amino acid sweeteners - 15843Y/09
01.11.77 GENERAL FOODS CORP D13 =FR 2406-956
e-flowing coffee agglomerate leaving no sediment - 35665B/19
11.11.77 GENERAL FOODS CORP D13 #GB 1549-554
ntinuous double coating of cereal particles - 89916Y/50
- 24.03.77 GERMAX & CO LTD B04 C03 D13 E24 =GB 1549-591
rmanium-contg. algae prodn. - 71088A/40
/ 07.10.77 GIGANTE J A96 D21 (A14) *US 4161-065
ulded denture formed of rigid and remouldable portions - 57820B/31
17.03.72 GIVAUDAN L & CIE SA D23 E15 =NL -160-800
fumery compsns - contg 3-isopropyl - 60546U/41
15.11.72 GIVAUDAN L & CIE SA D23 E15 =J7 9018-241
Keto-4-pentenyl)-1-cyclopentene perfumes - 40236V/22
/ 14.06.74 GORAN P C03 D13 =RU --63-791
n protoporphyrin derivs. separation from globin - 00513X/01
- 08.08.74 INST GOSPODARI APEL D15 J01 *RU --64-496
ratory sieve having low amplitude - B/31
O/ 18.10.74 GOTO H D16 =J7 9018-357
so without miso odour - 44614X/24
G/ 15.10.69 GOUGET J M D22 =NL -160-718
n-spill urinal - 30810U/22
09.12.77 GRAIN PROCESSING CORP D16 =NO 7804-136
epn. of roasted non-malted barley - 27923B/15
N- 27.10.77 GRANDS MOULINS PARI D11 =FR 2406-954
all oven for browning pre-baked loaves etc. on rollers - 18061B/10
/ 16.05.78 GREEN W M D13 *US 4161-545
ney coated roasted nut prod. - 57942B/31
09.11.77 GREFCO INC D16 =J5 4077-376
ducing the beer-soluble iron content of diatomaceous earth - 906B/11

J- 01.12.77 HAKU-BAKUMAI KK D13 (D16) *J5 4076-899
wdered barley water prodn. - 56831B/31
/ 11.01.78 HALLINGSTAD F C03 D13 *GB 2012-546
eding fish during salt water breeding - 56662B/31
R/ 05.04.77 HARRIS F E D22 *US 4161-176
ultilayer adhesive bandage - 57835B/31
G/ 13.05.77 HAUGEN D J A92 D22 *US 4161-157
door use animal litter container - 57831B/31
N 20.01.78 HAUNI-WERKE KORBER KG D18 F09 *DT 2802-315
garette paper web perforation device - 56397B/31
K 29.10.73 HENKEL KG AUF AKTIEN A97 D25 F06 =OE 7408-636
ptical brightening compositions for textiles - 32434W/20
K 23.06.77 HENKEL KG AUF AKTIEN D21 E15 =OE 7804-549
kin protection against longer wavelength UV - 01873B/02
K 23.06.77 HENKEL KG AUF AKTIEN D21 E13 =OE 7804-550
kin protection against longer wavelength UV - 01874B/02
K 23.06.77 HENKEL KG AUF AKTIEN D21 E19 =OE 7804-551
kin protection against longer wavelength UV - 01875B/02

HENK 01.10.77 HENKEL KG AUF AKTIEN D21 E14 =OE 7801-388
Antiinflammatory agents for cosmetics - 82130A/46
HENK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 =DT 2802-397
Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
HENK 19.12.77 HENKEL KG AUF AKTIEN D25 E19 F06 =DK 7805-474
Bleaching compsn. for textiles - 47356B/26
*HENK 20.01.78 HENKEL KG AUF AKTIEN B05 C03 D13 *DT 2802-396
Animal feed mixt. contg. proteolytic enzyme - 56403B/31
*HENK 20.01.78 HENKEL KG AUF AKTIEN B03 C03 D13 (C02) *DT 2802-398
Animal feed mixt. for poultry, pigs, etc. - 56404B/31
HERT/ 20.01.78 HERTTUA K D13 =DT 2902-221
Drink prepd. by water extn. of wood bark and sap - 39012B/21
*HIEJ 02.12.77 HITACHI PLANT ENG CONS D15 *J5 4077-281
Treating salt soln. - 56883B/31
HIGE- 23.01.75 HIGETA SHOYU KK D13 =J5 1086-157
Instantaneously cooling boiled beans delivered from boiler - 57335B/31
*HIGE- 23.01.75 HIGETA SHOYU KK D13 *J7 9018-355
Instantaneously cooling boiled beans delivered from boiler - 57335B/31
HILG- 10.03.76 HILGERS UMWELT GMBH D15 =OE 7701-404
Treating badly polluted water by disinfection and flocculation - 65001Y/37
*HIPP/ 28.12.77 HIPPOLITO N D13 *BR 7708-756
Butter churn - B/31
*HITA 02.12.77 HITACHI KK D15 *J5 4077-281
Treating salt soln. - 56883B/31
*HITA 07.12.77 HITACHI KK D15 E31 M11 *J5 4078-860
Treating copper ion-contg. waste e.g. from plating or etching - 57194B/31
*HITA 07.12.77 HITACHI KK D15 *J5 4078-861
Nitrification of ammonia contg. effluent - 57195B/31
*HITG 05.12.77 BABCOCK-HITACHI KK D15 *J5 4078-373
Appts. for fresh water prodn. - 57073B/31
HOFF 18.02.77 HOFFMANN-LA ROCHE AG D16 =DS 2806-902
Microorganism detection by liquid and solid culture media - 62154A/35
HOFF 11.05.77 HOFFMANN-LA ROCHE SA D21 E12 =PT --68-023
Antiperspirant organo-aluminium cpds. - 82107A/46
HOFF 13.01.78 HOFFMANN-LA ROCHE AG D13 E24 =GB 2012-547
Colouring agent, esp. for drinks, based on natural colourant - 52539B/29
HOFF 13.01.78 HOFFMANN-LA ROCHE AG D13 E24 =NL 7900-051
Colouring agent, esp. for drinks, based on natural colourant - 52539B/29
HONS 24.09.74 YAKULT HONSHA KK D13 =J7 9018-346
Stable, clear whey beverage prodn. - 37021X/20
*HONS 25.11.77 YAKULT HONSHA KK B03 D13 E13 *J5 4076-600
Refining stevioside and rebaudioside A in stevia leaf extract soln. - 56731B/31
*HOSH- 28.11.77 HOSHINO BUSSAN KK D13 *J5 4076-853
Fine flour-like rice powder prepn. - 56815B/31
HOTI/ 24.06.76 HOTIMSKY E R L D12 =OE 7704-323
Fixing radial blades on rotary shaft of food chopping machine - 75936Y/43
*HUBE 12.03.75 HUBER J M CORP D25 E36 (D21) *US 4161-455
Detergent compsns. contg. pptd. silicon di:oxide - 57900B/31
*HYMA/ 03.06.77 HYMAN S A92 C03 D22 *US 4161-283
Slow-release liq. volatiliser - 57852B/31

*IDOG/ 12.05.75 IDOGAWA S D15 *J5 4077-280
Water reclamation from e.g. oily or organic solvent-contg. waste - 56882B/31
INDK 26.06.76 IND WERKE KARLSRUHE AG D16 =DS 2628-772
Composting domestic and municipal waste - 02413A/02
INFL 07.10.75 INT FLAVORS & FRAGR INC B05 D13 E15 (D21 D23) =GB 1549-731
Flavouring or aroma compsns. for foodstuffs etc. - 03846Y/02
INFL 07.10.75 INT FLAVORS & FRAGR INC B05 D13 E15 (D21 D23) =GB 1549-732
Flavouring or aroma compsns. for foodstuffs etc. - 03846Y/02
*INLE- 06.08.75 IND LEMNULUI D13 *RU --62-229
Two-step vegetable material hydrolysate neutralisation - B/31
*INLE- 07.08.75 IND LEMNULUI D16 F09 *RU --62-230
Neutralising cellulosic hydrolysate with nutrient magnesium salt addn. - B/31
INRG 27.10.77 INST NAT RECH AGRON C02 D13 =FR 2406-959
Orotic acid and urea feedstuff additive - 18062B/10
INTE- 18.11.77 INTEROX A97 D15 E33 =J5 4078-856
Polymer coated calcium peroxide particles - 47500B/26
ITAG- 19.04.67 INT AGRI-SYST INC D12 =NL -160-703
Poultry plucker with flexible carcass suspension - 19380R/12
ITST- 18.11.77 INT STOCK FOOD CORP D13 =J5 4076-842
Silage conservation and fermentation control - 40884B/22
*IVAN= 04.04.77 IVANOVO MEDICINE IN D16 *SU -628-171
Bacteria controlled depth inoculator - 57527B/31
*IZUM- 05.12.77 IZUMI SEIMITSU KOGY D15 *J5 4078-372
Water distn. appts. - 57072B/31

JAEG/ 19.01.78 JAEGER K H B04 D16 =GB 2012-584
Antiblastic immunological preparations - 39018B/21
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =GB 2012-553
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =PT --68-744
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
JOHJ 16.01.75 DEVRO INC A97 D12 (A11 A32) =OE 7600-247
Edible sausage skins - 58111X/31
JOHJ 27.10.77 JOHNSON & JOHNSON D21 L02 =FR 2406-997
Low temp. maturing dental glaze - 78140A/43
JOHJ 23.01.78 DEVRO INC D12 =DT 2902-520
Cutting thin walled tube into segments - 42143B/22
JOHJ 23.01.78 DEVRO INC D12 =GB 2012-545
Cutting thin walled tube into segments - 42143B/22
JOHS 16.01.78 JOHNSON S C & SONS INC D25 E12 (E16) =NL 7900-299
Non-scratching liquid scouring compsn. - 50731B/27

*KALO- 08.08.77 KALO LABS INC C03 D16 *US 4161-397
Liquid seed dressing - 57866B/31
*KANA/ 05.12.77 KANAI M D15 L02 *J5 4078-366
Treating sludge, e.g. from sewage - 57067B/31
KANE 19.04.76 KANEBO KK D11 =DS 2659-027
Non-fried cooked porous noodles - 76157Y/43
*KANE 30.11.77 KANEBO KK A96 D21 *J5 4076-835
Hair dressing cosmetic contg. water soluble pigment - 56811B/31
KANE 00.00.78 KANEBO KK A35 D21 E36 L02 (A21) =J5 4077-293
Carbon-carbon composite with fibrous reinforcement - 02480B/02
*KAOS 25.01.78 KAO SOAP KK A97 D25 E33 *DT 2902-236
Detergent compsn. for washing textiles - 56577B/31
*KARA/ 00.00.75 KARALL J D14 *OE 7509-170
Curing chamber - B/31
*KART/ 03.08.77 KARTESZ F A C03 D12 *US 4161-158
Underground and surface dwelling fish bait preservation - 57832B/31
*KATA- 02.12.77 KATAYAMA KAGAKU KOG D15 L02 M24 *J5 4077-460
Treating waste water from blast furnace or converter slag - 56902B/31
KAUL/ 11.03.77 KAUL D D13 =US 4161-544
Powdery chewing gum compsn. - 67257A/38
*KAWA- 24.11.77 KAWAKEN FINE CHEM K B03 D21 E12 G02 (B07) *J5 4076-575
Aluminium 2-pyrrolidone-5-carboxylate prodn. - 56722B/31
KAWA/ 24.11.71 KAWAZOE A D15 E31 =J4 8058-652
Purificn. of iron-contg. water - 57354B/31
*KAWA/ 24.11.71 KAWAZOE A D15 E31 *J7 9018-505
Purificn. of iron-contg. water - 57354B/31
*KDPO= 05.05.76 KRASD POLY D16 *SU -629-225
Microorganisms culture unit - 57776B/31
*KDPO= 20.12.76 KRASD POLY D13 *SU -628-956
Centrifugal extractor of vegetable and pit fruit juice - 57671B/31
KEIL/ 25.11.77 KEIL W A91 D15 J01 =PT --68-822
Water softening appliance - 33443B/18
KERN- 23.01.78 KERNENER SCHIFFB D15 =GB 2012-614
Water desalination and purification - 54635B/30
*KETT- 21.02.78 KETTENBACH A FAB A96 D21 (A26) *OE 7801-241
Silicone impression material for dental purposes - B/31
KEWP- 15.07.76 KEWPIE KK D13 =GB 1549-488
Strawberry dressing machine - 08607A/05
KEYS- 01.11.77 KEYSTONE FOODS CORP D12 =FR 2406-962
Densified frozen, meat-fibre slices with surface grooves - 35699B/19
*KHCA= 08.12.76 KHARK CAR-ROAD INST A93 D16 L02 *SU -628-114
Concrete mix additive for improving strength and frost resistance - 57471B/31
KIDD- 23.05.73 KIDDE CONSUMER DURA D14 =NL -160-712
Oven for cooking defrosting food - 61260V/34
*KIFO= 05.04.76 KIEV FOOD IND TECH D17 *SU -628-173
Sugar juice clarification unit - 57529B/31
*KIFO= 01.08.76 KIEV FOOD IND INST D16 *SU -628-940
Extractor for raw materials of vegetable origin - 57661B/31
*KOBE- 21.02.78 KOBE INC D15 *US 4161-448
Combined separator and pump with dirty phase concentrator - 57896B/31
KONS 09.08.71 KONISHIROKU PHOTO KK D34 G06 =J4 8026-139
Improving the bleaching of edta during colour film processing - 57314B/31
*KONS 09.08.71 KONISHIROKU PHOTO KK D34 G06 *J7 9018-140
Improving the bleaching of edta during colour film processing - 57314B/31
*KOST/ 24.01.78 KOSTER S D15 J01 *DT 2802-891
Low cost water filter - 56468B/31
*KRAT 23.01.78 BIZERBA-WERKE KRAUT KG A88 D12 *DT 2802-743
Meat band saw - 56439B/31
*KUCK/ 29.03.78 KUCKENS A D13 *BE -875-143
Domestic prepn. of coffee infusion from ground coffee - 56329B/31
KUKI- 02.12.77 KUKIDENT KRISP K A96 D21 E19 (E34) #J5 4076-83
Cleaning dental prostheses in aq. soln. - 02249A/02
*KULA/ 25.05.77 KULAKOV A F D13 *SU -629-063
Cutter for edible products used in conserves - 57712B/31
KULZ 02.06.77 KULZER GMBH A96 D22 L02 (A14) =DS 2724-814
Material for prepn. of bone cement - 72816A/41
*KUPP- 24.01.78 KUPPERSBUSCH AG D14 *DT 2802-921
Food preparation e.g. reheating system - 56473B/31
KURE 22.07.76 KUREHA KAGAKU KOGYO B04 D16 =DS 2731-57
Prodn. of polysaccharide with antitumour activity - 06341A/04
KURK 30.08.75 KURITA WATER IND KK D15 =J7 9018-983
Water purificn. process - 26336Y/15
*KURK 05.12.77 KURITA WATER IND KK D15 E35 *J5 4078-857
Appts. for treating ammonia-contg. water by steam stripping - 571
*KYOW 02.12.77 KYOWA FERMENTATION KK D16 E17 *J5 4076-89
L-Malic acid prodn. - 56826B/31

LABO 02.12.77 LABOFINA SA D23 (D13) =US 4161-483
Hydrogenating oils, esp. cooking oils, using nickel catalyst - 2788
LABS- 15.01.76 SOC LAB D15 =DS 2701-479
Falling film evapn. and spray drying in single chamber - 34544Y/2
LAHE- 10.11.75 LAHEY CLINIC FOUND D16 #SU -628-801
Size analysis of microparticles e.g. cells - 79984W/48
*LANK 19.01.78 LANKRO CHEM LTD A97 D25 *DT 2901-927
Cleansing mixt. forming quick-breaking emulsion with oil - 56559
LANK 15.12.78 LANKRO CHEMICALS LTD A97 D25 =GB 2012-804
Cleansing mixt. forming quick-breaking emulsion with oil - 56559
*LARI/ 25.05.77 LARIONOV B A D13 *SU -628-875
Pelleting sticky food products, e.g. potato puree - 57640B/31
LCAS 27.10.77 LAB CASSENNE B04 D16 =FR 2407-262
polysaccharide extracted from Haemophilus influenzae - 37557B/
*LECO/ 25.10.77 LECOEUR R A J D15 *FR 2407-176
Treating domestic waste water by flocculation and sepn. - 56617B/
*LEEN= 23.07.75 LENGD ENG-CONS INST D15 *SU -628-092
Decolourisation of aq. effluents by electro-coagulation - 57449B/3
LEEP 26.10.77 LEE PHARMACEUTICALS A96 D21 G03 =FR 2407-251
Orthodontic adhesive for bonding teeth to brackets - 35802B/19
*LEME= 06.12.76 LENGD MEAT DAIRY D12 *SU -628-948
Meat mincer knife - 57666B/31
*LEME= 03.01.77 LENGD MEAT IND COMB D12 *SU -628-870
Slaughtered animal stomach cleaner - 57635B/31
LEPE 05.05.72 GRUPPO LEPETIT SPA B02 D16 =RU --63-804
Rifamycin b - 63408U/42
*LESU= 08.12.68 LENGD SURG TUBERCUL D22 *SU -628-888
Spongy bone transplant treatment - 57645B/31
LIFE- 12.12.77 LIFE SAVERS INC D13 =NO 7803-954
Sugarless candy with improved flavour and sweetness - 42347B/22
LIFE- 12.12.77 LIFE SAVERS INC D13 =SW 7812-728
Sugarless candy with improved flavour and sweetness - 42347B/22
LIFE- 23.01.78 LIFE SAVERS INC D13 #DT 2802-824
Flavoured chewing gum with prolonged sweetness - 45680A/25
*LUDE/ 23.01.78 LUDECKE A D15 *DT 2802-701
Containers for sludge collection and thickening - 56428B/31
*LVEP= 19.01.77 LVOV EPIDEMIOLOGY B05 D16 *SU -629-229
High yield di:hydroxy-benzoyl-serine prodn. - 57780B/31

MAGU- 14.09.76 MAGURIT RITTERSHAUS D12 =OE 7704-657
Frozen metal block cutting machine - 36719A/21
MARU/ 26.01.72 MARUMO H M D25 E16 =J7 9018-283
Detergent compsn - 77548T/49
*MECA- 28.01.74 INTR MECANIC AGRIC D23 *RU --64-046
Increasing castor oil seed crusher efficiency - B/31
MEIJ 31.10.77 MEIJI SEIKA KAISHA B04 D16 =FR 2407-219
Antibiotic BN-213 with antibacterial activity - 35651B/19
*MERI 29.09.77 MERCK & CO INC A14 B04 D22 F06 (A96) *US 4161-5
Preparing linear, unbranched poly-methyl-imino ethylene - 57959B
*MERI 03.10.77 MERCK & CO INC B02 D16 *US 4161-583
Purifying macrolide C-076 extract soln. - 57961B/31
MERI 25.01.78 MERCK & CO INC B04 C03 D16 =DT 2902-865
Cultivating cells or virus using Koch Static Mixing System - 54513B/3
MERI 15.05.78 MERCK & CO INC B04 D16 #PT --68-041
Preservatives for vaccines - 78323A/44
*META- 18.01.78 METALAS-HOLLAND BV D15 J01 *NL 7800-618
Sepn. tank for aq. cleaning fluid contg. oils and fats - 57389B/31
MILE 28.10.77 MILES LABORATORIES INC D13 =FR 2406-960
Juicy self-basting sausage-like food prods. - 07733B/04
*MINE- 06.09.74 CENT MINEREURILOR D15 J01 *RU --63-860
Mineral oil prod. removal from waste waters - B/31
*MINN 29.12.77 MINNESOTA MINING CO B05 D21 E11 *US 4161-51
Quat. ammonium organo-siloxane cpds. - 57930B/31
MINN 29.12.77 MINNESOTA MINING CO B05 D21 E11 =WP 7900-4
Quat. ammonium organo-siloxane cpds. - 57930B/31

.12.77 MINNESOTA MINING CO B05 D21 E19 *WP 7900-455
rice contg. fluoro:aliphatic calcium chelating agent - 57995B/31

.12.77 MINNESOTA MINING CO A96 D21 E19 *WP 7900-456
rice contg. membrane forming material - 57996B/31

.01.78 MINNESOTA MINING CO A97 D25 *DT 2902-130
moving cleansing pad - 56569B/31

.01.78 MINNESOTA MINING CO A97 D25 =GB 2012-802
moving cleansing pad - 56569B/31

3.01.78 MINNESOTA MINING CO A96 D22 G03 (A14 A81) =DT
9
s pressure-sensitive adhesive coated tape prodn. - 25856B/13

23.01.78 MINNESOTA MINING CO A96 D22 G03 (A14 A81) =GB
9
s pressure-sensitive adhesive coated tape prodn. - 25856B/13

9.02.75 MIRAJ INTR COSMET D21 *RU --66-449
onic complexion lotion - B/31

7.06.75 MIRAJ INTR COSMETIC D21 *RU --64-547
care cosmetic compsn. - B/31

27.06.75 MIRAJ INTR COSMETIC D21 *RU --65-292
e up compsn. - B/31

27.06.75 MIRAJ INTR COSMETIC D21 *RU --65-295
hydrating emulsion for complexion - B/31

27.06.75 MIRAJ INTR COSMETIC D21 *RU --65-296
-care compsn. - B/31

3.01.75 MITSUBISHI KAKOKI KAISHA D13 *J7 9018-355
ntaneously cooling boiled beans delivered from boiler - 57335B/31

3.06.74 MITSUI SHIPBLDG AND ENGG A97 D15 K07 =US 4161-447
oving radioactive cpds. from waste-water - 00436X/01

28.11.77 MITSUI TOATSU CHEM INC D16 *J5 4076-886
n. of frozen material contg. luminous bacteria - 56820B/31

26.11.77 MITSUBISHI GAS CHEM IND D13 E37 *J5 4076-857
oving astringency of persimmons - 56816B/31

23.01.75 MITSUBISHI HEAVY INDS D13 *J7 9018-355
antaneously cooling boiled beans delivered from boiler - 57335B/31

05.12.77 MITSUBISHI CHEM IND KK A91 B03 D13 E13 *J5 4078-386
enerating porous highly basic anionic exchange resin - 57083B/31

05.12.77 MITSUBISHI CHEM IND KK A91 B03 D13 E13 *J5 4078-388
generation of porous, highly basic anion exchange resin - 57085B/31

05.12.77 MIYOSHI YUSHI KK A97 D25 E16 (E12) *J5 4078-704
sh compsn. for cleaning machine oil stains - 57121B/31

= 13.05.77 MOSC CLINIC RES INS B04 D16 *SU -628-900
ne fragments adhesion accelerator - 57648B/31

/ 12.09.77 MOEN C D15 *SW 7807-612
let for biological decomposition - 57816B/31

)= 05.03.77 MOSC FOOD IND TECH D17 *SU -628-172
et sugar juice diffuser augers control - 57528B/31

)= 10.05.77 MOSC FOOD IND TECHN INST D14 *SU -628-852
cous food mass delivery device - 57633B/31

) 23.01.78 MOJONNIER BROS CO D16 *GB 2012-608
. deaerating appts., esp. for beer making - 56671B/31

/ 30.12.77 MOLIN S B04 D16 =WP 7900-467
cterial culture process - 52679B/29

D 06.05.77 MOSCOW MEAT DAIRY INST D12 *SU -628-871
tomatic industrial meat mincer - 57636B/31

/ 21.01.76 MORIMURA T A88 D15 F04 (A17 A93) =DS 2702-043
ler for waste water treatment - 54356Y/31

K 02.09.76 MOSCOW CHEM EQUIP INST D16 *SU -629-226
icroorganisms culture unit - 57777B/31

U 05.08.75 MOSCOW LOMONOSOV UNIV B04 D16 *SU -628-920
evention of single cell organism adaptation to pharmaceuticals - 7653B/31

V= 28.07.76 MOSC SVOBODA COSMET B05 D21 *SU -628-919
edicinal shampoo compsn. - 57652B/31

A 25.10.77 MOTALA VERKSTAD AB D15 H09 #FR 2407-257
efuse fired gas generator - 33540B/18

R 15.03.76 NAARDEN INT NV D23 E17 =GB 1549-565
,5)-Alkadienols and esters useful in perfumes - 69258Y/39

GM 23.01.78 UNIV NAGOYA D15 (D16) *DT 2902-365
urifying phosphorus cpd. - contg. waste waters - 56585B/31

GM 23.01.78 NAGOYA UNIVERSITY D15 (D16) =GB 2012-742
urifying phosphorus cpd. - contg. waste waters - 56585B/31

T 19.11.73 NAT STARCH & CHEM CORP A96 D21 E13 =NL -160-719
lair shampoo and conditioner - 36292W/22

AU= 05.05.76 N CAUCASUS PROTEIN D16 *SU -629-225
Aicroorganisms culture unit - 57776B/31

R- 28.10.77 NEDRE NORRLANDS PRO D13 =FR 2406-955
Vhey based products prepn. from milk serum from cheese or caseinate - 6020B/09

F 00.00.73 NEFF WERKE GMBH D11 =DS 2452-100
Gas heated hot air baking oven - 40252X/22

T 19.10.71 SOC PROD NESTLE SA D22 J01 =OE 7208-930
Gas filter - 15495U/11

T 25.10.77 NESTLE SA D11 =FR 2406-961
nstant pasta prepn. with high liq. absorption capacity - 33671B/18

NEST 12.01.78 SOC PROD NESTLE SA D13 =GB 2012-544
Decaffeinating aq. tea extract - 47165B/26

NEST 12.01.78 SOC PROD NESTLE SA D13 =NL 7812-279
Decaffeinating aq. tea extract - 47165B/26

* NEST 20.01.78 NESTLE SA D13 *DT 2901-522
Coffee extract for preparing non-spurting carbonated beverage - 56550B/31

* NEST 25.01.78 NESTLE SA D12 E17 *DT 2851-908
Aromatising material imparting pork flavour - 56529B/31

* NICO- 16.03.74 NICOLAU S S INST D16 *RU --68-098
Fixing cellular cultures in immunofluorescence for virology - B/31

* NICO- 11.11.75 NICOLAU S S INST B04 D16 J04 *RU --66-555
Dehydrogenase lactate determination in alantoid and cellular culture I - B/31

* NICO- 07.12.77 NIPPON COINCO KK D15 J03 *J5 4079-174
Electrolytic cell for mfg. acidic and alkaline waters - 57258B/31

NIEM- 23.10.72 NIHON EMULSION CO INC D21 E16 =DS 2353-088
Aminocarboxylic acid diesters - 35799V/19

NISS 24.05.68 NISSHIN FLOUR MILL KK D13 =DS 1926-521
Minced meat-like food - from wheat gluten contg non ionic - 78379S/50

* NITW 08.12.77 NITTETSU MINING KK D15 E36 M14 *J5 4079-130
Phosphoric acid recovery from aluminium polishing waste - 57233B/31

NMHB 29.08.77 NORDISCH MASCH R BAADER D12 =DS 2738-845
Appts. for sepg. bone structure from fish - 45743B/25

NMHB 14.12.77 NORDISCH MASCH R BAADER D12 #NO 7704-298
Fish gutting machine esp. for large sea fish - 21668A/12

NMHB 16.12.77 NORDISCH MASCH R BAADER D12 #SW 7714-381
Fish gutting machine esp. for large sea fish - 21668A/12

* NOVA= 13.04.77 NOVAYA ZARYA PERFUM A91 D23 (A14 A23) *SU -629-224
Decolourisation of alcoholic solns. of essential oils for perfumery - 57775B/31

NREN 25.10.74 NIPPON WATER TREATM KK D15 F09 J01 =J7 9018-862
Decolourising lignin contg waste liquor - 44881X/24

* OHBA 06.12.77 OHBAYASHIGUMI KK D15 L02 *J5 4078-367
Solidifying sludge from rivers, excavations, sewage works, etc. - 57068B/31

OREA 21.07.76 L'OREAL SA D21 E24 =OE 7705-237
Stable solutions of specified indoaniline and indophenol dyes - 06389A/04

* OSAC- 01.12.77 OSAKA CEMENT KK D15 J01 L02 *J5 4076-627
Cement compsn. for solidification of industrial waste - 56743B/31

* PARW- 20.01.78 PAR-WAY MFG CO D14 *DT 2902-092
Food spray coating appliance - 56564B/31

PARW- 20.01.78 PAR-WAY MFG CO D14 =GB 2012-543
Food spray coating appliance - 56564B/31

PERS- 23.08.76 PERSIL GMBH A97 D25 E19 (A25) =OE 7606-229
Stable liq. low foaming dishwashing concentrates - 18037A/10

PFIZ 09.01.74 PFIZER INC B02 D16 =RU --63-768
Antibiotic mixts. contg. thiomethyl rifamycin S and - SV - 49733W/30

PFIZ 18.11.77 PFIZER INC B05 D16 E17 =PT --68-789
2,5-Di:keto-gluconic acid preparation - 38984B/21

PHAR- 18.03.75 PHARMA-VERTRIEB AG A97 B05 C03 D22 =DS 2511-830
Potentiated germicidal compns - 61601X/33

PHIM 18.11.77 PHILIP MORRIS INC D18 =GB 2012-554
Filter cigarette - 40885B/22

PHIM 10.01.78 PHILIP MORRIS INC A97 D18 E19 =WP 7900-488
Tobacco contg. non-volatile polymer of isopropenyl ester - 55674B/30

* PHIM 29.03.78 PHILIP MORRIS INC D18 *BE -875-083
Expanding tobacco to increase its filling capacity - 56315B/31

POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 =NL -160-708
Flavouring method - 65183Z/00

PROC 16.05.67 PROCTER & GAMBLE CO D13 =NL -160-704
Flaky instant coffee - 49491R/28

PROC 10.01.72 PROCTER & GAMBLE CO D25 E16 F06 (D21 E14) =OE 7300-122
Textile softeners and soil-repellents - 43083U/31

PROC 18.08.75 PROCTER & GAMBLE CO A97 D13 (D12) =GB 1549-414
Texturised particles from fat and gelling agent esp. ethylcellulose - 12730Y/08

PROC 05.09.75 PROCTER & GAMBLE CO D25 E19 =GB 1549-648
Dipolar detergent cpds. contg. sulphonium gp. - 16452Y/10

PROC 21.09.77 PROCTER & GAMBLE CO D13 E19 =US 4161-550
Meat aroma precursor compsn. - 26453B/14

* PROT- 13.09.73 PROTAN INTR IND C03 D13 *RU --65-045
Proteinaceous fodder flour and technical fat prepn. - B/31

* PURA- 12.04.78 PURATOR-KLARANLAGEN D15 *OE 7802-552
Aerating device for waste water - B/31

PUTS- 26.10.76 PUTSCH H & CO D17 =DK 7704-669
Cutting machine for treating sugar cane tubers - 53929A/30

RALS 19.06.76 RALSTON PURINA CO D13 #DS 2627-613
Oilseed protein isolates prodn. - 54024X/28

RAYM/ 01.03.77 RAYMOND J D16 =GB 1549-597
Electromagnetic irradiation to accelerate maturing of food prod. - 88248A/49

RECK 25.10.74 RECKITT & COLMAN PROD A96 D21 =OE 7508-133
Hair shampoo contg polyethylene imine conditioner - 16912X/10

REED/ 24.10.77 REED C W D15 #DT 2747-572
Power plant having condenser with hot well - 79069Y/44

RENN/ 04.12.74 RENNER H D15 =OE 7409-693
Biological small-scale sewage treatment - 46395X/25

RHON 13.08.74 RHONE-POULENC INDUSTRIES C04 D13 E36 (C03) =J7 9018-997
Defluorination of wet process phosphoric acid - 14944X/09

RHON 16.01.78 RHONE-POULENC INDUSTRIES D17 (D16) =GB 2012-792
Xanthomonas polysaccharide(s) used to prepare aq. gels - 52555B/29

RIES/ 23.07.77 RIESS G A96 D21 =DS 2733-394
Artificial tooth root of plastic loaded with a bioactive phosphate - 47821A/27

RIES/ 09.12.77 RIESS G A96 D21 =NO 7803-718
Dental surgical implant for securing crowns, bridges etc. - 24021B/13

RIKA 23.07.76 RIKAGAKU RES LABS KK B04 D16 =US 4161-424
Specific endo-nuclease enzyme - 08718A/05

*RITR= 04.04.77 RIGA TRAUMA ORTHROP D22 *SU -628-893
Wound, e.g. skin burn, dressing removal - 57646B/31

ROHG 15.05.76 ROHM GMBH D18 =GB 1549-470
Treating sulphide tanned pelts in aerated acid baths - 88347Y/50

ROHM 25.04.75 ROHM & HAAS CO A14 D15 (A97) =GB 1549-697
Poly(vinyl-imidazoline) and salts dispersion in inert oil - 83030X/45

ROTO- 31.10.77 ROTOCROP INT LTD D16 =FR 2406-951
Machine to chop vegetable waste for compost - 18082B/10

ROTO- 26.10.78 ROTOCROP INT LTD D16 =GB 2012-565
Machine to chop vegetable waste for compost - 18082B/10

SAGA 01.03.73 SAGAMI CHEM RES CENTRE B02 D13 E13 =J7 9018-251
Alpha substd. 5-hydroxy tryptophan derivs - 69761V/40

*SAKA/ 28.11.77 SAKAKIDA K B04 D16 *J5 4076-897
Antitumour cpd. prodn. which coagulates cancer cells - 56829B/31

*SAKC 09.08.71 SAKURA COLOR HANBY KK D34 G06 *J7 9018-140
Improving the bleaching of edta during colour film processing - 57314B/31

SAOC 18.03.75 SANRAKU OCEAN B02 D16 =J7 9018-354
Antibiotics from novel Streptomyces strain - 85876X/46

*SAOC 26.11.77 SANRAKU OCEAN B04 D16 *J5 4076-817
Antitumour drug - 56803B/31

*SAOC 26.11.77 SANRAKU OCEAN B04 D16 *J5 4076-896
Anticancer polysaccharide C-45 prodn. - 56828B/31

*SATO- 07.12.77 SATO KOGYO KK C04 D15 *J5 4079-164
Dehydration of waste sludge to form fertiliser - 57249B/31

SCHD 19.12.77 SCHERING AG B01 D16 =DK 7805-705
21-Hydroxy-20-methyl-pregnane derivs. prodn. - 47378B/26

*SCHD 25.01.78 SCHERING AG B01 D16 *DT 2803-660
17-Alpha-alkoxy:alkoxy-pregn-4-ene-3,20-di:one derivs. - 56511B/31

*SCHD 25.01.78 SCHERING AG B01 D16 *DT 2803-661
Pregnane derivs. microbiological 11-beta-hydroxylation - 56512B/31

SCHN- 08.03.68 FIRMA KARL SCHNELL D12 =NL -160-738
Meat precomminuting machine - 37878S/22

SCHR/ 09.08.74 SCHRODER H D11 =DT 2462-915
Dough metering and working machine - 15157X/09

SCHR/ 31.12.74 SCHRODER H D11 =DT 2462-906
Piston feeder for supply of dough - 54354X/29

SCIE 30.11.77 SCIENCE UNION & CIE B04 D16 =PT --68-837
Depsipeptide extract of Fusarium equiseti - 42405B/23

SCKH 09.07.76 SCHRODER & CO D13 =OE 7703-616
Mayonnaise and/or derived prods. continuous mfr. - 75944Y/43

*SCTE- 15.09.75 INST SCIENCES TECHN A14 D15 J01 (A88) *GB 1549-352
PVC-acrylic acid graft copolymer selective permeability membrane - 56639B/31

SEAC- 04.06.71 SEACLEAN SA D15 H03 =DS 2226-567
Hydromechanical liquid/liquid skimmer - 81644T/52

*SEIK- 04.12.77 SEIKENKAI ZH D15 (D16) *J5 4078-859
Water purificn. agent for breeding tropical fish or farming sea fish - 57193B/31

*SHAD/ 23.11.76 SHADRIN E YA D16 (D13) *SU -619-152
Air saturation chamber for lac fermentation solution - 57416B/31

*SHIM- 29.11.77 SHIMADAYA HONTEN D13 *J5 4076-840
Heat-sterilising starchy foods sealed in vessel - 56813B/31

*SIDA= 13.05.74 SIBE DAIRY IND RES D14 J08 *SU -628-391
Spray dryer gas distributor - 57595B/31

*SILV/ 28.12.77 SILVA L M D15 *BR 7708-755
Water treatment system using nonwoven cloths - B/31

SIMO- 11.05.77 SIMON-HEESEN BV D13 =US 4161-139
Animal fodder preparation before pelletising - 84402A/47

*SINT- 08.12.72 SINTEZA INTR D15 *RU --63-597
Purifying residual waters and air contg. organo phosphor
B/31

SNAM 10.07.75 SNAMPROGETTI SPA C03 D16 (D13) =OE 7605
Protein prodn. from prototheca - 06131Y/04

SODR- 09.12.77 SODRA SKOGSAGARNA A D22 F09 =NO 7804-
Feed arrangement of continuous sheets of pulp to dry-laying
44035B/24

SOMA- 25.10.77 SOMAT CORP D15 =FR 2407-174
Dewatering sewage sludge - 33597B/18

SOUT- 21.12.77 SOUTHLAND CORP D13 E17 (D21 E12) =PT --68-
Easily dispersible powdered hydrated emulsifiers - 54385B/29

SOVI= 14.07.72 SOVIET TRADE INST D13 =SU -439-267
Protein-contg. products prepn. - 61742W/37

*SOYU= 24.05.76 SOYUZVODOKANALPROEK D15 *SU -628-093
Effluent cleaner restricting activated sludge - 57450B/31

SQUI 27.12.66 SQUIBB E R & SONS INC B04 D16 =NL -160-877
Antibiotics - 32711F/00

*STAD 03.08.77 STANDARD OIL CO (IND) D16 *US 4161-546
Texturising single cell protein - 57943B/31

STAU 12.01.78 STAUFFER CHEMICAL CO D12 =GB 2012-550
Filler for minced meat prods. - 52535B/29

STAU 12.01.78 STAUFFER CHEMICAL CO D12 =US 4161-552
Filler for minced meat prods. - 52535B/29

STEI- 01.02.77 STEINER H LTD D16 =GB 1549-605
Hop treatment and humulone stabilisation for brewing - 24160B/

*STEL- 11.02.74 STELA INTR D18 *RU --65-046
Leather industry emulsifier prepn. - B/31

*STER 20.07.78 STERLING DRUG INC D21 E12 *US 4161-526
Pyrithione (salt) or di:pyrithione compsns. - 57937B/31

*STIS- 21.08.78 STI-SISTEMAS TECNIC D14 *PT --68-459
Fruit and vegetable crusher - B/31

*STOM/ 29.03.77 STOMAKHIN A E D17 *SU -628-876
Sugar beet cleaner - 57641B/31

*STRO- 13.12.77 ANSTALT STROMUNGSMA D16 *OE 7708-875
Packing and method for treating biologically decomposable m
B/31

*SUGA= 05.03.77 SUGAR IND PLANNING D17 *SU -628-172
Beet sugar juice diffuser augers control - 57528B/31

*SULZ 03.04.78 GEBRUDER SULZER AG D15 *OE 7802-479
Storing method for reusable activated sludge - B/31

SUMO 19.01.78 SUMITOMO CHEMICAL KK D15 J04 =GB 2012-95
Analysis of total nitrogen content of aq. systems - 54496B/30

*SUMO 27.01.78 SUMITOMO CHEMICAL KK D15 E36 J04 *BE -873-7
Analysis of nitrogen derived from nitrites and nitrates - 56291B/31

*SUMQ 29.12.77 SUMITOMO KINZOKU KO D14 J04 M24 *GB 2012-
Measurement of particle size distribution of granular subst
56711B/31

*SUNG- 01.12.77 SUN GRAIN KK D16 *J5 4076-888
Cultivation of Chlorella - 56821B/31

SVME- 25.01.78 SVENSKA MEJERIERNAS D13 =DT 2853-474
Continuous prodn. of buttery prod. spreadable at low temps. - 371

SYMA- 20.01.78 SOC SYMAC A31 D14 J02 =DT 2901-341
Continuous mixer for particulate solids and liquids - 54500B/30

SYMA- 20.01.78 SOC SYMAC A31 D14 J02 =GB 2012-602
Continuous mixer for particulate solids and liquids - 54500B/30

TAKA/ 25.01.73 TAKAI M D25 =J7 9018-284
Detergent contg. hydroxyalkyl-contg. amphoteric surfact
36607W/22

TAKE 19.03.76 TAKEDA CHEMICAL IND KK D12 =J7 9018-345
Fibrous protein bundle mfr. - 78732Y/44

*TAKE 25.11.77 TAKEDA CHEMICAL IND KK B04 D16 *J5 4076-895
Antibiotic C-15003P-2 prodn. - 56827B/31

*TAKG 02.12.77 TAKI KAGAKU KK D15 *J5 4077-459
Surfactant-emulsified oil-contg. waste water treatment - 56901B/31

*TAKS 01.12.77 TAKASAGO PERFUMERY KK D23 E17 *J5 4079-203
Tri:ene cpd. useful in perfume compositions - 57279B/31

*TANB 02.12.77 TOKYO TANABE KK D16 *J5 4076-885
Aspergillus awamori TT-810 - 56819B/31

TASH/ 19.04.73 TASHIRO T D15 L02 M12 =J7 9018-239
Refractory magnesium or cobalt spinel type cpds prodn - 67414X/36

TEIJ 09.10.73 TEIJIN KK D21 E12 =J7 9018-289
Bath inclusion compd. prepn. - 02607X/02

TEKN- 12.12.77 TEKNOTERM SYST D15 =SW 7714-056
Optimising heat energy exploitation in sewage treatment p
45952B/25

*TETR 23.01.78 TETRA PAK DEV SA D12 *DT 2901-118
Working up fish raw material for human nutrition - 56545B/31

TETR 23.01.78 TETRA PAK DEV SA D12 =GB 2012-556
Working up fish raw material for human nutrition - 56545B/31

TEXC 31.10.77 TEXACO DEV CORP D15 =FR 2407-175
Treating waste water contg. cyanide and formate(s) - 33367B/18

THET- 11.11.77 THETFORD CORP D15 =J5 4077-457
Bacteriological closed loop toilet waste system - 40979B/22

.11.71 THORDARSON J D12 J01 =OE 7209-947
ugal gas washer - 32554U/23

12.77 TOHO RAYON LTD D15 *J5 4077-461
ic waste water treatment - 56903B/31

.11.77 TOKAI SUISAN KIKAI D12 *J5 4076-858
of conc. protein of Okiami (Krill) - 56817B/31

12.77 TOKYO SHIBAURA ELEC LTD D15 J01 *J5 4079-165
ng and melting sludge to improve its filterability - 57250B/31

12.77 TOKYO SHIBAURA ELEC LTD D15 *J5 4079-172
. for pure water prodn. in home - 57256B/31

.11.73 TOSHIBA PHARM KK D18 E14 =J5 0076-300
ve for tobacco filter - 57336B/31

2.11.73 TOSHIBA PHARM KK D18 E14 *J7 9018-358
ive for tobacco filter - 57336B/31

5.11.78 TOWNSEND ENG CO D12 #PT --68-785
ine to inject brine, etc. into meat - 20059B/11

2.11.74 TOYO BREWING KK D16 =J7 9018-356
oving dregs in sake prodn - 58971X/31

0.04.75 TOYO SEIKAN KAISHA A97 D13 E19 =US 4161-459
nically peeling fruits or vegetables - 96831X/52

0.04.75 TOYO SEIKAN KAISHA LTD A97 D13 E19 =US 4161-459
nically peeling fruits or vegetables - 96831X/52

8.12.77 TOYO SODA KK D15 E34 *J5 4079-199
brine prepn. - 57276B/31

6.12.77 TOYOTA MOTOR KK A97 D15 M24 *J5 4078-365
ting water-soluble quenching oil waste water - 57066B/31

4.12.74 TSEITLIN I M D15 *SU -628-091
rodialysis water desalinator - 57448B/31

21.10.77 TSUDA I A82 C03 D22 E14 (A18 C02 E13) *J5 4077-636
mould coating compsn. - 56934B/31

13.03.78 TUFTS COLLEGE TRUSTEES A97 B04 D16 (A11) #GB 1549-

ficn. of carboxy:peptidase G-1 - 28612A/15

23.03.77 UFA PETROLEUM INST C03 D22 E14 F06 *SU -629-212
ydroxyphenyl di:sulphide prodn. - 57763B/31

= 21.02.77 UKR FARMING RES C04 D16 *SU -629-204
ogen-fixing Rhizobium meliloti strain 441 - 57755B/31

14.12.77 UGINE KUHLMANN A91 D15 E36 J01 =DK 7805-587
ne removal from gaseous mixts. or aq. solns. - 47541B/26

28.10.77 UHL & CO GMBH D12 =FR 2407-443
vice for supplying cooled drinking water to meat processor -
81B/20

02.07.69 UNION CARBIDE CORP D15 =NL -160-788
chemical oxidation with low sludge re- - 91879R/49

02.07.69 UNION CARBIDE CORP D15 =NL -160-789
-oxidation with low sludge yield - 91880R/49

02.07.69 UNION CARBIDE CORP D15 =NL -160-790
gh oxygen utilisation in bod cntng water - 91878R/49

02.07.69 UNION CARBIDE CORP D15 =NL -160-791
ged oxygenation of bod-cntng water - 91881R/49

15.12.77 UNION CARBIDE CORP A97 D12 =SW 7812-852
bular cellulosic wrapping, esp. for sausages - 45696B/25

27.01.78 UNION CARBIDE CORP D12 *BE -873-738
rapping for food products esp. sausages - 56294B/31

24.03.72 UNILEVER NV D13 E17 =NL -160-706
ovolone cheese flavoured foodstuff - 31445U/22

08.01.76 LEVER BROS CO D23 =US 4161-484
pg. solid particles from fats, esp. in fractional crystallisation -
994Y/27

06.05.77 UNILEVER NV D25 E12 =PT --68-004
otropic aq. liq. compsn. for washing textiles - 82553A/46

25.05.77 UNILEVER NV D24 E32 =PT --68-083
etergent compsn. contg. titanium or zirconium peroxy cpds. -
096A/48

26.10.77 UNILEVER NV A97 D25 (A14 A25) =FR 2407-261
ain removing compsn. esp. for use in cold rinse - 33336B/18

31.10.77 UNILEVER NV D25 E19 =FR 2407-260
abric softener compsn. - 33373B/18

10.11.77 UNILEVER NV A97 D25 =J5 4076-606
lkaline particulate detergent compsns. for washing clothes etc. -
7143B/20

L 19.12.77 UNILEVER NV D23 E17 =DK 7805-646
elective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25

L 12.01.78 UNILEVER NV D24 =NL 7900-210
eodorising textile washing compsn. - 54834B/30

L 12.01.78 UNILEVER NV D21 (D25) =NL 7900-211
Vashing compsn. contg. detergent and deodorant - 54833B/30

L 19.01.78 UNILEVER NV D21 E13 *DT 2901-070
Cleansing bar contg. water-soluble acyl isethionate salt - 56544B/31

L 01.02.78 UNILEVER NV D25 *BE -873-772
pray dried detergent powder compsn. prodn. - 56302B/31

L 18.01.79 UNILEVER LTD D21 E13 =GB 2012-803
Cleansing bar contg. water-soluble acyl isethionate salt - 56544B/31

O 18.01.77 UCB SA B02 C02 D13 =OE 7800-322
piro-thiopyran or-pyran penicillin derivs. - 53860A/30

*UNIR- 12.02.74 UNIREA INTR D23 *RU --66-988
Total animal fat hydrogenation with nickel catalyst - B/31

UNIS- 01.11.77 UNISCOPE INC A97 C03 D13 =FR 2406-958
Lubricating binder for animal feeds - 65374A/37

UNIX 21.10.77 UNISEARCH LTD A88 D15 J01 K05 =J5 4077-289
Anisotropic, synthetic, multilayer, molecular sieve membrane -
35640B/19

UNVO 28.12.77 UOP INC D15 =GB 2012-741
Appts. for conditioning demineralised brackish or sea water - 40491B/21

*UORC= 16.05.77 UKR ORCHARD RES INS D14 *SU -628-878
Continuous and uniform conveyance of fruit - 57643B/31

*UPRO= 17.05.77 UKR PROVISION MACH D17 *SU -628-877
Washing root vegetables - 57642B/31

*USPI= 01.04.77 UKR SPIRITS LIQUOR D16 *SU -629-227
Microorganisms culture unit - 57778B/31

*VEND= 10.05.77 VENDING EQUIP RES D14 *SU -628-852
Viscous food mass delivery device - 57633B/31

*VNII= 08.01.74 VNIIPRB D16 E36 *SU -555-577
Regeneration of active carbon used for purificn. of alcohol solns. -
57412B/31

*VYMP= 03.02.77 VYMPEL RES COMBINE D12 *SU -628-869
Electrical animal stunning unit - 57634B/31

WARN 18.11.77 WARNER-LAMBERT CO D21 E33 (E12) #GB 1549-555
Stick deodorant contg. stearate and rice starch - 33420A/19

*WARR/ 26.01.78 WARREN W D13 *US 4161-548
Prodn. of hard boiled eggs with elongated yolks - 57944B/31

*WASU 13.05.75 BAKINO WATER SUPPLY D15 H05 *SU -628-094
Purification of effluent waters contg. petroleum impurities - 57451B/31

WEAR- 29.12.75 WEAR-EVER ALUMINIUM D14 =OE 7604-501
Low voltage dispensing gun for foodstuff compsns., eg dough -
79109X/42

WEIS- 23.12.75 GEBRUDER WEISS KG D16 J01 =US 4161-426
Filtering exhaust gases contg. organic cpds. - 48923Y/28

WERN 23.12.77 WERNER & PFLEIDERER D11 =PT --68-797
Multideck baking oven - 49266B/27

WESS 17.08.76 WESTFALIA SEPARATOR AG D13 =OE 7704-547
Continuous mfr. of cream cheese from skimmed milk - 90107Y/51

WINC- 04.04.75 WINCANTON ENGINEER D13 =OE 7602-407
Drainage plates for cheese moulds - 63491X/34

WISC 29.09.72 WISCONSIN ALU RES FOUND B05 D16 =RU --63-799
Cyclopentane-1,3-diones inters to prostaglandins - 73644U/48

*WISC 03.07.78 WISCONSIN ALU RES FOUND C03 D16 *US 4161-084
Protecting plants against frost damage - 57822B/31

YAMA 26.07.76 YAMANOUCHI PHARM KK B02 D16 =OE 7802-917
(7)-Methoxy cephalosporins fermentative prodn. - 29215Y/17

D
01 Q00+
61 Q01
77 B31+

CD
29 Q00
93 V38
57 Q01
87 Q01
61 Q01
27 Q01
30 Q01
049 Q01
628 Y46
705 B31

DE
588 R07
407 W01
862 R31
624 S24
338 T22
720 B31

D
803 R12
659 R19
636 R46
131 W04
564 W20
-203 X39
-703 B31

D
-164 R15
-532 W46
-917 Y49
-968 B31

BD
-299 R23
-206 X37
-044 A33+
-044 B31+

D
-968 R26
-416 R35
-106 T20
-739 B31

D
7-602 R28
6-923 T47
7-466 A05
0-704 B31

D
8-647 R32
8-938 S15
9-618 S36
2-155 B31

D
3-306 R38
0-832 R40
2-207 R46
9-579 S13
1-976 T25
0-724 T51
0-730 B31

BCDE
50-049 R44+
06-649 R45
22-216 R46
42-452 S16
84-184 S50
13-098 S51
13-096 S51
13-094 S51
13-097 S51
21-099 T26
20-767 T26
21-298 T26
28-470 T50
28-225 T50
05-621 U06
65-323 U14
65-322 U15
65-324 U15
96-077 U20
536-603 U29
536-604 U29
536-834 U29
537-452 U35
537-352 U35

CH -539-682 U44
US 3928-456 X01+
US 3931-326 X03+
DS 2022-216 X28+
US 3975-310 X35+
DS 2065-322 B30+
DS 2065-324 B31+

91878-R D
US 3547-812 R49
BE -752-084 R49
NL 7009-739 S02
DT 2032-440 S03
FR 2054-075 S31
ZA 7004-501 S31
DL --85-318 T01
CH -518-877 T20
CA -901-188 T23
GB 1325-322 U31
DT 2032-440 U37
J7 4019-585 V24
HU T010-806 X04
RU --59-888 X35
US RE29-781 A40+
NL -160-790 B31

91879-R D
US 3547-813 R49
BE -752-081 R49
NL 7009-735 S02
DT 2032-189 S04
FR 2054-076 S31
ZA 7004-498 S31
CA -889-548 T02
DL --86-799 T10
CH -517-668 T13
DT 2032-189 U19
GB 1325-321 U31
J7 4019-582 V24
HU T010-807 X04
RU --59-889 X40
NL -160-788 B31

91880-R D
US 3547-814 R49
BE -752-082 R49
DT 2032-535 S02
NL 7009-738 S02
FR 2054-077 S31
ZA 7004-499 S31
DL --86-792 T10
CA -901-186 T23
CH -521-291 T26
DT 2032-535 U19
GB 1325-323 U31
J7 4019-586 V24
HU T010-808 X04
RU --59-585 X40
NL -160-789 B31

91881-R D
US 3547-815 R49
BE -752-083 R49
NL 7009-741 S02
DT 2032-480 S03
FR 2054-078 S31
ZA 7004-500 S49
DL --87-544 T15
CA -901-696 T24
CH -533-576 U19
DT 2032-480 U24
GB 1325-324 U31
CH -540-857 U47
J7 4019-584 V24
HU T010-805 X04
RU --59-586 X28
NL -160-791 B31

16984-S DJ
BE -755-389 S09
NL 7012-674 S10
DT 1948-073 S13
CH -505-357 S24
FR 2059-382 S36
DT 1948-073 T45
GB 1299-639 T50
CA -948-144 V24
NL -160-933 B31

37878-S D
US 3580-315 S22+
FR --96-190 T46
NL -154-127 Y37
NL -160-738 B31

48996-S DJ
CA -875-969 S30+
DT 1782-485 U18

CS 6806-518 B28
NL -160-792 B31

78379-S D
CA -887-593 S50
J7 2033-147 T34
DS 1926-521 B31

15470-T DE
NL 7111-535 T10+
FR 2104-367 T29
US 3719-498 U12
GB 1347-727 V09+
J4 7005-265 T13+
J7 6012-692 X20+
J5 1125-720 X51+
DS 2141-356 Y11+
DT 2141-356 U06+
NL -159-002 B06+
J7 9018-332 B31+

48572-T ABCD
BE -778-005 T30+
NL 7200-509 T32
DT 2201-533 T38
ZA 7200-198 T41
FR 2121-830 T50
US 3760-805 U40
CA -949-513 V27
CA -956-609 V45
GB 1385-272 W09+
CH -577-825 X34+
OE 7200-280 X36+
NL -160-726 B31+

77548-T DE
DT 2222-899 T49+
J4 8079-213 V21
US 3855-156 W01+
DS 2222-899 W23
US 3888-797 W25+
GB 1398-276 W25+
GB 1398-277 W25+
J7 9018-283 B31

81644-T DH
DT 2226-567 T52
NL 7207-506 T52
BE -784-347 U01
ZA 7203-790 U17
CH -529-265 U22
DL --97-692 U27
GB 1396-155 W23
IL --39-509 W25
CA -992-005 X29
NL -154-290 Y37
US 4151-081 B19+
DS 2226-567 B31

15495-U DJ
BE -789-946 U11
NL 7214-101 U19
DT 2249-851 U19
FR 2156-802 U33
CH -540-057 U44
DL -100-399 U45
US 3881-896 W20
GB 1411-802 W44
CA 1010-795 Y22
OE 7208-930 B31

30810-U D
GB 1318-769 U22+
SU -518-110 Y11
NL -160-718 B31+

31445-U DE
BE -789-800 U22
ZA 7207-143 U27
DT 2314-607 U41
NL 7213-536 U42
FR 2176-650 V01
J4 9006-157 V12
GB 1400-592 W29
OE 7208-655 W31
CA -978-796 W51
US 3924-014 W51
CH -572-318 X15
DS 2314-607 B17
NL -160-706 B31

32554-U DJ
DT 2257-268 U23
FR 2165-895 U43
CH -564-367 W34
GB 1408-418 W40
OE 7209-947 B31

43083-U DEF
DT 2300-658 U31+
NL 7300-329 U31
BE -793-776 U31
FR 2167-852 U45
GB 1389-673 W14+
CA -972-508 W35
CH -577-064 X29+
US 3976-581 X36
OE 7300-122 B31+

60546-U DE
DT 2313-017 U41
NL 7302-559 U41
FR 2176-786 V01
J4 9011-850 V14
GB 1379-874 W02
CH -565-728 W38
CH -572-013 X12
CH -572-742 X15
US 3963-675 X26+
US 4031-132 Y26+
US 4068-084 A04+
J5 3109-957 A44
DS 2313-017 B29
NL -160-800 B31

63408-U BD
BE -799-122 U42
DT 2319-322 U48
ZA 7302-340 V06
FR 2183-823 V09
DL -103-924 V15
DS 2319-322 V22
GB 1367-273 V38
US 3871-965 W13
CH -561-277 W21
HU T010-237 W34
IL --41-979 W37
SU -465-795 X11
CA -986-864 X17
NL -150-509 X38
RU --63-438 A37
J4 9054-589 B23
J7 9011-399 B23
RU --63-804 B31

73644-U BD
US 3773-622 U48
BE -805-491 V07
NL 7312-906 V16
DT 2348-471 V17
FR 2201-276 V27
J4 9075-786 V39
DL -107-434 V42
ZA 7305-999 V43
DS 2348-471 W36
GB 1408-732 W40
HU T011-233 X16
OE 7308-395 X20
IL --43-146 X27
CA -997-696 X42
CH -601-143 A28
J7 9003-953 B12
RU --63-492 B29
RU --63-800 B29
RU --63-801 B29
RU --63-802 B29
RU --63-803 B29
RU --63-799 B31

35799-V DE
NL 7314-487 V19
DT 2353-088 V20
FR 2203-806 V34
J4 9063-683 W08
US 3927-047 W52
GB 1433-610 X18
J7 6023-395 X33
J5 0154-440 A12+
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37021-X D
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44614-X D
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44881-X DFJ
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46395-X D
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DT 2627-613 A01+
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62645-X D
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J7 9018-239 B31

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77838-X DE
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79109-X D
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J7 9000-982 B07
US 4161-459 B31

03846-Y BDE
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DT 2611-160 Y16+
NL 7602-839 Y17+
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FR 2327-224 Y28+
GB 1549-731 B31+
GB 1549-732 B31+

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OE 7605-856 B31

12730-Y AD
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GB 1549-414 B31

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SW 7608-278 Y13
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26336-Y D
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29152-Y BDE
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29215-Y BD
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DT 2657-599 Y28+
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SW 7614-516 Y33+
DK 7605-797 Y37+
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DK 7605-015 Y30+
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46994-Y D
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DK 7700-987 Y48
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57573-Y AD
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75936-Y D
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75944-Y D
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78732-Y D
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79069-Y D
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80694-Y D
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88347-Y D
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GB 1549-554 B31+

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02413-A D
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06389-A DE
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08607-A D
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15726-A AD
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18037-A ADE
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FR 2407-253 B31

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46152-A DEK
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53860-A BCD
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53929-A D
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62154-A D
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SW 7712-
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DE
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306 B19+
331 B19+
516 B22+
440 B31+

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032 B26
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499 B31

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D
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-376 B31

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-615 B23
-184 B26
-895 B27
-319 B31

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-095 B26+
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47541-B ADEJ
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CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

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27 SEPTEMBER 79
58002B - 59801B

1 JAN 1980

ABSTRACTS

INDEXES

- **II - PATENTEE**
- **V - BASIC NUMBER**
- **VII - PATENT NUMBER**

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	31 JUL - 6 AUG 79	873,817 - 873,975
-Non Delayed	31 JUL 79	875,250 - 875,420
BRAZIL	24 JUL 79	7,706,747 - 7,907,397
CANADA	10 JUL 79	1,057,901 - 1,058,350
	17 JUL 79	1,058,351 - 1,058,800
DENMARK	16 JUL 79	7,704,078 - 7,805,814
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	+ 30 MAY 79	135,558 - 135,847
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-OLS	2 AUG 79	2,741,806 - 2,903,998
EUROPE	8 AUG 79	3,209 - 3,471
FRANCE*	1 JUN 79 (BOPI 6 JUL 79)	2,407,649 - 2,408,284
UNITED KINGDOM	8 AUG 79	1,549,751 - 1,550,320 2,013,071 - 2,013,460
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JAPAN		
-Unexamined	—	47,029,284 - 54,050,509
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-Examined	12 JUL - 18 JUL 79	79,019,001 - 79,019,920
NETHERLANDS	23 JUL - 29 JUL 79	7,800,644 - 7,900,605
NORWAY	16 JUL 79	7,704,350 - 7,901,727
PORTUGAL	24 JUL 79	61,300 - 69,013
SOVIET UNION	—	629,260 - 630,617
SWEDEN	23 JUL 79	7,710,718 - 7,904,883
UNITED STATES		
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-Patents	24 JUL 79	4,161,792 - 4,162,541

*Printed patents actually published early July - early August, 1979

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

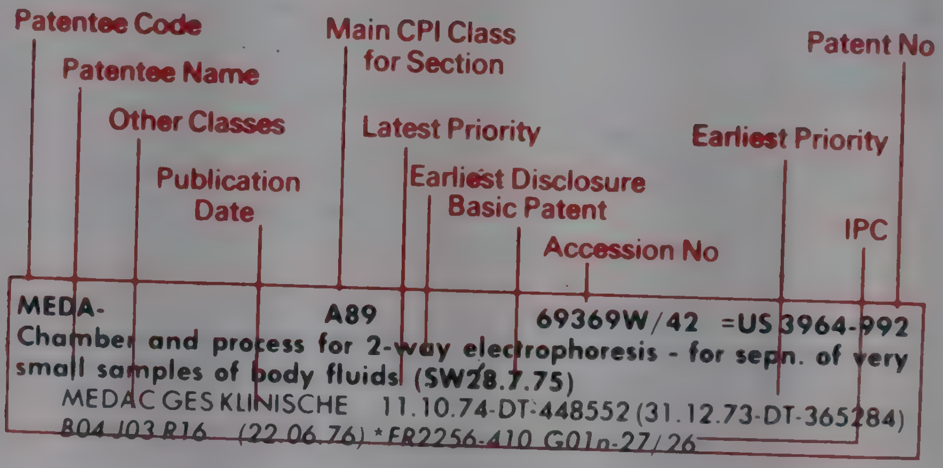
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Earliest Priority
IPC
Patent No

MEDA- **A89** **69369W/42 =US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

D11 58051B/32 ★BE -875-318
en with access in one vertical side - has grill support turning
tical axis, with guide line for removing the grill
REVENT AB 04.04.78-SW-003786
(31.07.79) A21b A47j

ill oven incorporates an access opening in one of the
l sides, through which the grill with food on is in-
horizontally. A grill support inside the oven turns
ertical axis, and can be detached from the grill it-
The grill is extracted horizontally along a guide line.
grill support is automatically driven so that it can
a non-operating position in which the guide line is
ngular position in relation to the access. The exten
of the guide line passes through or near one of the
al sides of the access. 4.4.79 as 875318 (10pp318)

★ D11 58110B/32 ★DL -135-680
cutting and feeding machine - with reciprocating pusher
nd feeder slide to save labour
RLE & MONTANARI 03.04.78-DL-204565
23.05.79) A21c-15/04

chine for the automatic cutting and feeding wafers to
sting moulds for the production of multi-layer water
ream or chocolate fingers has an inclined chute lead-
om the mould table upwards to a magazine for the
s. A pusher plate feeds the wafers to parallel cutter
s and the cut strips are moved in separate channels
the chute by a reciprocating feeder in coordination
he movement of the moulds.

is saves most of the labour, at present needed for
operations. 3.4.78 as 204565 (21pp39)

D11 47708W/29 =DS 2509-413
ng device in which yarn is inclined to diametric axis of bobbin
oles adjacent windings to be automatically packed closely
er
AHTWAREN DRAHTZUG 13.03.74-CH-003523 (13.03.74-CH-
3522)
Q36 (02.08.79) *BE-825-992 B65h-54/04

stallation for winding wire, strip, etc. on to a reel,
comes the problems arising from guides laying in at
stant angle. With these, at the point of reversal, the
rial jumps away and the new layer is only commenced
a gap equal to a number of coils, to that the capacity
e reel is not used to the full, and the stability of the
ng is in doubt.

oth the reel and the material being wound carry out
iable displacement motion relatively to each other
arallel to the axis of the reel. A control circuit is
ided which regulates the displacement speed dependent
the position of the material and the angle at which it is
ing on to the reel. The control circuit embraces a
arrangement for regulating the feeding angle of the
rial, a second arrangement for regulating the speed
e relative displacement between guide and reel, so
the running on angle is variable to the value zero or
s desired value.

third arrangement influences the first and second
ngements dependent upon the progress of winding.
, in a definite zone of the winding on, the running on
e can be regulated at its desired figure and in at least
other definite zone of the winding on, the running on
e can be altered to zero or to its desired value.
75 as 509413 (8pp1045)

F/ ★ D11 58285B/32 ★DT 2804-033
erbread spreading machine - with shallow concave openings
rum periphery for applying dough on wafers
VOLFEL P 31.01.78-DT-804033
(02.08.79) A21c-09/04

wafers in the mfr.
of spiced honey cake (Lebkuchen) includes a drum with several opeings on the periphery to accept a wafer. On passing a dough funnel under pressure the concave space over the wafer is filled with dough.

The capacity of this machine can be increased by arranging severl lines of openings on a wide drum. It is easier to clean than a plate chain design. 31.1.78 as 804033(14pp)

HEBE- D11 52418Y/30 =GB 1550-232
Plates for baking clamps, esp. for waffles - which are self-supporting, transfer heat uniformly and are easily handled
HEBENSTREIT GMBH 06.05.76-DT-620109
(08.08.79) *DS2620-109 A21b-05

A baking plate for baking tongs for the production of cakes has recesses in the outer heat input side which taper towards the paste treatment side of the plate. The surface area of the outer side is greater than the inner.

Pref. the recesses are symmetrical to the centre line of the baking plate in a cobweb-like array. Alternatively the recesses can be arranged in lines. The recesses all have a frusto-conical or a pyramidal shape. The taper angle is 7.5° to 22.5°.

The heat economy is improved. 17.1.77 as 001705 (9pp1376)

CONF= ★ D11 ✓ 59373B/32 ★SU -629-911
Dough for baking protein-rich sweet pastries - includes addn. of protein components and starch soln. stabilised with sodium alginate
CONFECTIONERY IND (HETO) 08.06.77-SU-496048
(12.09.78) A21d-13/08

The emulsion is prepd. from sugar powder, inverted syrup, condensed milk, melange, salt, soda, ammonium carbonate, water and melted margarine (at 42°C). Separetely, an alginate-starch gel is prepd. by solubilisation of one half of the total amt. of starch in a 0.9-1.2% sodium alginate soln. at 68°C. Then, the remaining half of the starch is admixed to the above emulsion, followed by the above gel and proteins in an amt. of 10-15% w.r.t. the total compsn.

The mixt. is kneaded at 30°C. for 2 min., and baked. Shulga, L.F., Antokolskaya, M.Ya., Tolstoguzov, V.B. et al. Bul. 40/30.10.78. 8.6.77 as 496048 (3pp70)

MRSC ★ D11 59767B/32 ★US 4162-333
Filled food product manufacture - in which extruded dough tubes are internally supported during baking prior to filling
MARS INC 03.08.78-US-930757
(24.07.79) A21c-03/04 A21c-09/06 A21d-08/02

Food articles having a tubular body of baked dough and a soft filling of e.g. cheese, are made by extruding tubular dough lengths onto upstanding pins carried by a conveyor, passing the lengths still on the pins through prooving and baking stations, removing the lengths from the pins and finally filling the removed lengths with the filling.

Pref. the pins are carried by separate plates which are moved through the various stations by several conveyors in series, whilst in another embodiment the pins are carried by a single wire mesh conveyor which moves the pins through all the stations.

The pins support the dough lengths and ensure a regular shape to the articles. 3.8.78 as 930757 (9pp525).

ALFR- ★ D11 59768B/32 ★US 4162-334
Bread baking in earthenware pans - coated with terra sigillata to prevent adhesion
ALFRED UNIV RES FOU 21.08.78-US-935663 (27.04.77-US-791507)
L02 (24.07.79) A21d-08/06

Bread is baked in a fired brickware pan having a water permeability of ≥ 2% and a coating, at least on the baking surfaces, of fired terra sigillata. The coating closes only some of the pores in the earthenware body, so that it still imparts the characteristic taste and physical properties of brick oven baked bread, but the bread does not stick to the pan.

The earthenware body has a permeability of 2-12% and the coating closes 30-95 (30-60)% of the pores. 21. 8. 78 as 935663 (6pp955).

D12 : MEAT ; FISH PROCESSING

QUAK ★ D12 58003B/32 ★BE -873-617
Extruded foods esp. meat products for pet foods - using modified extruder conditions to obtain greater throughput
QUAKER OATS CO 19.06.78-US-917322
C03 P28 (23.07.79) A23p A47j

The process comprises (a) forming a thermoplastic paste contg. sufficient water and of the desired viscosity, (b) extruding the paste in an extruder, (c) injecting sufficient steam into the extruder prod. when it leaves the extruder, (d) mixing the steam and prod. to condense at least part of the steam and distributing the water uniformly in the prod. thereby raising the temp. and water-content (e) shaping and recovering the product.

A shaped prod. formed from a paste comprises 14-40% protein on a dry basis derived from at least one protein source, 1-45% of at least one starchy ingredient, 15-50% water equal to at least the paste water-content, together with nutrient and appearance additives and a stabilising system. 22. 1. 79 as 873617 (23pp597)

WINK/ ★ D12 58111B/32 ★DL -135-681
Fish transporting device - with return drums of parallel endless belts swinging eccentrically
WINKLER O 04.04.78-DL-204575
(23.05.79) A22c-25/08

A device to feed fish into fish processing machines uses two endless belt conveyors with pulleys on vertical axes between which the fish is moved forward. The drive pulleys can turn around their shafts and the return pulleys can swivel on circular arcs from a centre, offset from the centre of the drive shaft.

This causes the conveyor belts to exert a constant pressure against the fish sides without requiring springs or other technical facilities. 4.4.78 as 204575 (6pp39)

SPRA/ ★ D12 58156B/32 ★DL -135-798
Fish loading device for processing machines - with sensor for size dependent discharge
SPRANGER H 20.04.78-DL-204910
(30.05.79) A22c-25/08

An automatic device to feed fish to processing machines at a level depending on the fish size, a feeler responds to the fish height and adjusts by a linkage a wedge. The wedge governs the displacement for the delivery end of a fish conveyor which is actuated by a power cylinder.

The fish is not exposed to any stress which may cause damage. The device is entirely automatic and needs no attendance, once a wedge has been selected to suit the type of fish. 20.4.78 as 204910 (7pp39)

HUCK- ★ D12 58216B/32 ★DT 2803-361
Woven sausage skin - with warp and weft threads at angle to longitudinal and peripheral direction
HUCKFELDT & THORLIC 26.01.78-DT-803361
F07 (02.08.79) A22c-13

A woven sausage skin is made from a woven strip with diagonal weft and warp threads which include pref. an angle of 90° and include rhombs with a ratio of the diagonals of 1 : 1. When the edges have been sewn together to form a hose and the sausage meat is filled in, the hose is stretched to 1.27 times its old diameter and the diagonal ratio os 2 : 1.

The woven skin can be produced economically and can be stored on the tubes of sausage machines in much greater quantities than woven skins with longitudinal and equat-

STEN- ★ D12 58235B/32 ★DT 28
Sausage loop presentation device - with feeding flight, cutte
and flexible pusher
FA STENZEL P 27.01.78-DT-803511
(02.08.79) A22c-11/12

A device to present suspension loops to a sausage fill
machine contains a reel with a wound strand of loops
which is unwound and pulled along a groove by a fligh
Locating plungers hold the strand as a cutter balde cu
off a certain length and a flexible pusher moves the l
along a guide tube to the sausage filling machine.

This requires no manual intervention and automati
presents the suspension loops to the sausage filling m
ine. 27. 1. 78 as 803511(12pp39)

FREI- ★ D12 58279B/32 ★DT 280
Meat carcass suspension rail conveyor junction - has two
tongues with setting device for connection with either branch
FREITAG L TRANSPORT 31.01.78-DT-804005
Q21 Q41 (02.08.79) B611-05 E01b-25/26

The junction points are for conveyor layouts with susp
sion tracks, esp. sliding tracks for large pieces of m
with one rail as approach and two or more for selecti
runoff, and movable points tongue connected with a se
unit. Here there is a second points tongue (11). Both t
gues (11, 12) are activated simultaneously with one se
unit (8).

In each locking position one tongue only provides co
ection between the approach and the appropriate runoff
The tongues may have different configurations, both be
mounted on a sliding carriage for the setting unit. Thi
obviates need for hinge joints subject to damage or req
ring constant maintenance. 31. 1. 78 as 804005(16pp568

HENN/ ★ D12 58299B/32 ★DT 2804
Meat e.g. sausage treatment with smoking spice colour soln.
immersion or sprinkling to prevent benzopyrene collection
surface
HENNING W 01.02.78-DT-804184
E14 (02.08.79) A23b-04/14

Surfaces of meats are treated, cold or warm, by quick
immersion or insertion in- or by quick sprinkling with
a meat-smoking spice colour soln. contg. smoked aron
atisers, finely ground brown, reddish/brown, yellowis
brown foods, spices and/or food additives and water.

The smoking spice colour soln. is pref. prepd. by s
king the water-soluble foods and/or additives so that th
soln. contains only 8-15 µg benzy(a)pyrene/kg.

The collection of water-insoluble benzopyrene-contg
polycyclic hodrocarbons on meat surface and enviromen
tal pollution by smoking-pyrolysis are prevented. Benz
pyrene concn. on meat surface can be limited to 0.3-0.
µg/m^2. Taste and aroma are good. 1.2.78 as 804184(

STRE- ★ D12 58301B/32 ★DT 2804-
Hot dogs in brine - packed in plastic bags by lowering hose f
filler tube and applying clips after filling
STREITER F KG 01.02.78-DT-804191
Q31 (02.08.79) B65b-09/10

Bags containing hot-dogs in brine are produced by gathering a plastic hose over a vertical filler tube, closing
bottom end and lowering a group of hot dogs in it. After
pouring in brine, the bag is closed on top and severed.

This is a cheaper way of packing hot dogs than tins.
The transparent bag attracts customers and the

D12 58327B/32 ★DT 2843-624
illing machine - with one swivelling cylinder in filling and ischarging station
OMBINAT NAGEMA 27.01.78-DL-203439
(02.08.79) A22c-11/08 B65b-03/12

ne for filling food paste, e.g. sausage meat for the tion of sausages, consists of two parallel cylinders hem is filled with the food paste by a worm convey- a contact cuts out the conveyor drive. A detent is l and the full cylinder is turned into a discharge where a piston discharges its contents. During ration, the other cylinder is filled.

reduces the percentage of unproductive time per- greatly increases the labour productivity. 6.10.78 24(8pp39)

D12 94304X/51 =GB 1549-886
ic evisceration of butchered animal carcass - with high nd automatic sepn. of undamaged abdominal and thoracic

ICE NAT VALORISA 10.06.75-FR-018025
*.08.79) *BE-842-567 +A22c-07*

matic evisceration process for carcasses suspen- m a conveyor includes using a rotary cutter to make bove the anus, using a blade to cut the hip bone damaging the intestines or bladder, pivoting the s through 90° to bring its ventral aspect onto a fur- tter and then successive cutting elements for open- carcass to release and successively remove sep- the abdominal and thoracic viscera.

f. the viscera are removed by gravity with the car- orizontal. The rotary cutter is advanced when a feel- acts the carcass.

ual evisceration is avoided and hygiene conditions proved. 10.6.76 as 024036 (9pp1376)

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r D12 58799B/32 ★J5 4080-455
g bed material prepn. - by dropping aq. soln. of arginate and e and vegetable gum in aq. metal salt soln.
CHEMICAL IND KK 06.12.77-JA-145696
7.06.79) A23b-07 A23l-01/21

ng bed material is prepd. by dropping the aq. soln. nate (e.g. Na arginate) or of the mixt. of arginate, nd vegetable gummy substance in the aq. soln. of t of an at least divalent metal (e.g. $CaCl_3$) with st-
.

ginate and the metal salt react instantaneously to water insol. gel and the gel is moulded into various . The obtd. gel is edible, thermo-resistant and ex- t in mechanical strength and water-holding property. t pickled vegetables superior in appearance and flav- re prepd. more cheaply. 6.12.77 as 145696 (4pp5)

★ D12 58800B/32 ★J5 4080-456
d beef prodn. - involves adding phosphate compsn. and g under reduced pressure to increase yield
REHA CHEM IND KK 09.12.77-JA-147181
27.06.79) A23l-01/31

ethod comprises (a) making cuts on the surface of lumps using a meat-tenderiser, (b) adding phosphate sn. and edible salt, (c) pickling the mixt. with stirr- der reduced pressure $<$ 60 cmHg, and (d) treating ckled mixt. as usual to prepare corned beef.

e yield depends on steaming process and pickling od. The loss can be decreased using the present me- nd nutritive corned beef can be prepared with the as high as 70-85% cf. 55-60% by conventional meth- By making cuts on the surface of meat lumps fascia endon of meat material can be previously cut and the lving-out of water and essence from meat material gh the pressing of muscles due to the contraction of a and tendon, can be decreased. 9.12.77 as 147181)

★ D12 58853B/32 ★J5 4080-900
density storage of live (shell)fish - where concentrations of nic acid, nitrogen cpds. water-soluble organics and oxygen ontrolled to specified levels
SAHI CHEMICAL IND KK 03.12.77-JA-145478

The water tank for live fish and shellfish is maintained at a low temp. suitable for the fish and shellfish and the conc-ns. of carbonic acid, ammonia nitrogen cpd., water-sol. organics, and oxygen are regulated to $\ngtr$1000 ppm, $\ngtr$15 ppm, $\ngtr$150 ppm, and $\nless$ 3 ppm, respectively. Ammonia nitrogen cpd. or water-sol. organics-treating chemical-filled portion is packed with $>$1 a silicate ion exchanger, e.g., synthetic zeolite, Al alumino-silicate ion exchanger, e.g., Zr phosphate, Zr tungstate, etc., and activated carbon whereby nitrogen cpd. and organics are controlled to $\ngtr$25 ppm and $\ngtr$150 ppm, respectively. An oxidising agent-supplying tank is provided from which an oxidising agent, e.g., a halogen oxidant is supplied. The appts. also has an aeration portion; a temp. regulating portion, and so forth.

The shellfish can be stored for several days to one month even at a high density of 200-700 kg/m^3 to the extent of 100%. 3.12.77 as 145478(9pp117)

KYOW ★ D12 59221B/32 ★J7 9019-454
Mfr. of protein food with good water retention - by adding 5-guanylic acid or its salts to the food at acidic pH
KYOWA FERMENTATION KK 07.08.70-JA-068650
(16.07.79) A23b-04/14 A23l-01/31

Method comprises adding $\geq$0.1 wt.% of 5-guanylic acid or its salt to protein food (e.g. ham, sausage, boiled fish paste, etc.) at pH of 3-8. The additive imparts to protein foods excellent water retention, gelling property and elasticity without affecting flavour and taste

In an example, a mixt. of 700g beef, 300g pork, 30g salt and 3g KNO_3 is finely ground, and added with 2g sodium glutamate, 3g sugar, 5g spice and 10g sodium guanylate; the mince is mixed with a mixt. of 200g lard and 50g salt, stuffed into a casing, smoked for 50 mins. at 50°C and boiled for 20 min. at 70°C. 7.8.70 as 068650 A23l-1/31; A23b-4/12 (16.7.79) KYOWA FERMENTATION KK (3pp83)

VOLK- D12 92527X/50 =SU-629-912
Removal of pin bones from fish fillets - mechanically or manually placed on the boning machine
VEB VOLKSWERFT STRA (SCHM/) 23.10.75-DL-189000
*(30.11.78) *DL-122-322 A22c-25/16*

In a process for removing pin-bones from fish fillets mechanically or manually placed on the machine, the pin bones are first pressed from the fillets, then clamped whilst moving with the fillets, and finally pulled out of the fillets. The bones are removed without loss of fish flesh. No adjustment is required to cater for fillets of varying sizes.
Schmidt, U. Bul. 40/30.10.78. 15.10.76 as 410958 (4pp)

UNIC D12 37518B/20 =US 4161-968
Peelable cellulosic casing for food prods. - has internal coating of water-soluble cellulose ether and cationic thermosetting resin or edible protein
UNION CARBIDE CORP 03.11.77-US-848065
*A97 +Q67 (A11 A21 A23) (24.07.79) *EP---1-867 +F16l-11/02*

A cellulosic food casing is prepd. which includes on the interior surface of the casing a release coating which comprises $\geq$ 0.286wt.% of water soluble cellulose ether and $\geq$0.029wt.% of a cationic thermosetting resin.

Pref. the casing is in shirred form and further comprises a fibrous web embedded in the casing. The resin is curable from being water soluble to being water insol. The coating further comprises a mineral oil, a polyol, or a water soluble alkylene oxide adduct of partial fatty acid esters. The cellulose ether is pref. methyl cellulose; and the resin is the reaction prod. of an epichlorohydrin and a polyamide, or a polyalkylenepolyamine or its salt.

The casing is esp. used with a small dia. dry sausage prod. or 'snack food'. 3.11.77 as 848065 (7pp931).

GENO D12 21326W/13 =US 4162-332
Simulated meat products of vegetable protein - partly cooked esp. bacon with contrasting layers of fat and lean
GENERAL FOODS CORP 10.09.73-US-395793 (18.10.76-US-733579)
*(24.07.79) *DT2443-101 A23j-03*

A simulated meat prod. is prepd. by preparing $\geq$1 slurry

≥1 layer of the slurry to a moving surface to form a layered mass of the slurry.

The layered mass is then subjected to moist heat at atmos. pressure by conveying the mass through a heat-set chamber. Chamber is comprised of humidified air having a wet bulb temp. of 205-212°F and dry bulb temp. of 220-240°F. Treatment is for a time sufficient to raise the internal temp. to 180-200°F in order to coagulate the protein without removing significant amts. of mo from it, such that undue prod. expansion does no

The heat-set prod. can be sliced for marketin prepd., or after subjecting it to varying degrees Pref. the prod. is a partially fried bacon analogu 18. 10. 76 as 733579 Div. ex 3999474 (13pp931).

See Also

D13 J7 9019453 D16 GB 1549959

D13 : OTHER FOODSTUFFS

UNIL ★ D13 58008B/32 ★BE -873-858
Granulation of foodstuff esp. for fish - by spraying an aq. soln. of a polymer on an agitated bed of finely-divided ingredients
UNILEVER NV 31.01.79-BE-873858
A97 C03 (31.07.79) A23k A23p

Prepn. of foodstuff for small animals, esp. fish, comprising granules with a maximum size of 300-2000 µm, comprises aggomerating an agitated bed of essentially solid, finely-divided foodstuff ingredients with a mean particle size of ≤ 500 µm by spraying with an aq. soln. of a non-toxic polymer and drying the granulated product, if necessary, to < 15% moisture.

Improvement in flow properties of the granules is afforded by using a polymer soln. rather than water. The granules are more regular in size. In an example, a typical foodstuff contg. 68% fishmeal, 13% skim milk powder, 10% mineral/vitamin mixt. and 9% edible oil was mixed and granulated at 30°C by adding an 18% aq. soln. of gelatin at 60°C and drying the granules at 50°C to 10% moisture content. 31. 1. 79 as 873858 (34pp288)

UNIL ★ D13 58009B/32 ★BE -873-859
Foodstuff for very small fish - is granulated with an aq. soln. of a polymer on an agitated bed of premix
UNILEVER NV 31.01.79-BE-873859
A97 C03 (31.07.79) A23k A23p

Prepn. of foodstuff for very small fish comprising granules of ≤ 300 µm, comprises agglomerating an agitated bed of essentially solid, finely-divided foodstuff ingredients with a mean particle size of no more than 150 µm by spraying on them an aq. soln. of non-toxic polymer and opt. drying the prod. to <15% and opt. classifying the prod. so that it contains > 10% w/w of granules with a max. particle size of 300 µm.

Food is suitable for feeding larvae of sea fish including crustaceans and molluscs. In an example, a typical foodstuff contg. 68% fish meal, 13% skim milk powder, 10% mineral/vitamin mixt. and 9% edible oil was milled and agglomerated at 30°C with 5% gelatin soln. at 60°C, 44% of prod. was fit for larvae of sole and 10% for turbot. 31. 1. 79 as 873859 (20pp288)

PETR- ★ D13 58020B/32 ★BE -873-914
Chewing gum contg. sorbitol as sweetener - is prepd. using conc. syrup with a sugar acid to stop crystallisation
PETRIS C F EFTF 03.02.78-DK-000496
(02.08.79) A23g

The sugar free chewing-gum is prepd. using a chewing-gum base and a very conc. sorbital syrup contg. a sugar acid or its water-soluble salts to control the sorbital crystallisation.

The additive inhibits crystallisation. The process gives a compsn. which is easier to work, it is not sensitive to variations in the compsn. and the prods. have a better storage stability. 2. 2. 79 as 873914 (7pp597)

SLAG- ★ D13 58024B/32 ★BE -873-932
Decolourised blood human foodstuffs - obtd. by centrifuging haemolysed hydrolysed red cells and charcoal treating prod. then drying
SLAGTERIERNES FORSK (NOVO) 06.02.78-GB-004619
(06.08.79) A23j A23l

Prepn. of foodstuff additive based on blood by haemolysing some of the red blood and then partial hydrolysis proteolytic enzyme to a degree of hydrolysis (DH) then inactivating the enzyme, sepg. the supernata pH of > 4 and treating it with charcoal.

Haem is removed from the haemoglobin so that red colour does not intrude when the protein fracti ed in human foodstuffs.

In an example, pigs blood was citrated and cent to give 110. 9 kg of red cell suspension. This was lysed by adding water at 55°C then adjusted to pH 'Alcalase' (RTM) was added and incubated for 70 m give a DH of 18. 1 50% of protein in the red cells, covered as haem-free protein. 5. 2. 79 as 873932 (

FARM= ★ D13 58086B/32 ★DL
Pasteurising and cooling plant for milk - with electric elements inside cell plates contacting conductive rods
FARM ANIMALS REARIN 10.03.78-DL-204112
(16.05.79) A23c-03/02 A23l-03

A pasteurising and cooling plant for liquid prods. s milk, uses for the heating for the milk built-in elec heating elements in the plates of the pasteurising c elements and their current-conductive connection r insulated from the heat exchange surface areas.

This plant combines low capital cost for its mfr. high productivity and quality of the finished product as 204112 (36pp39)

GART- ★ D13 58157B/32 ★DL
Brussels sprouts sorting and cleaning machine - with sortin aligning troughs and stalk cutters
VEB KOMBI GARTENBAU 17.04.78-DL-204810
(30.05.79) A23n-07

A machine for the sorting and cleaning of vegetable as Brussel sprouts consists of several sorting belt and a storage bunker. An alignment chute terminat trimming chute where a revolving cutter shaft with up belt cuts off the stalk.

The machine requires a min. of manual labour. sprouts are aligned automatically in the correct pos for trimming the stalk. 17.4.78 as 204810 (11pp39)

GERV- D13 76784T/48 =DS 2
Cheese fondu - preserving its consistency on subs heating, contg heat-coagulable proteins
GERVAIS DANONE AG (GER -) 03.06.71-DT-127531
*(02.08.79) *BE-783-590 A23c-19/12*

Melt-resistant processed cheese is prepd. by addin % heat-coagulatable proteins, (I), at <70°C, after ing the processed cheese by heating to 80-110°C. A the addn. of (I) the processed cheese may be heated 70°C until most of (I) have coagulated.

High quality warm cheese dishes can be prepd. (I be egg albumin, lactalbumin, blood albumin or globu aq. or dry or present as highly conc. foodstuffs. 3. as 127531 (4pp200)

RESE D13 73218T/46 =DS 2
Enzymatically-active membranes - immobilisation of enzy complex formation on protein membranes
RESEARCH CORP 20.04.71-US-135753
*B04 (D16) (02.08.79) *NL7205-308 C07g-07/02 C13k-03*

lagen-, zein-, caseine-, ovalbumine-, wheat- fibrinogen-, myosine-, mucoprotein-, polyglu- polyaspargate-, polyphenylalanine- polytyros- eucine-p-aminophenylalanine-copolymer mem- a pH of 2-12 to max. swelling capacity. The swo embrane is then immersed in an aq. soln. of the at a pH between the iso-electric point of the mem- nd that of the enzyme.

ay be used for enzyme-catalysed substrate con- s. (I) have high enzymatic activity. A constant of enzyme remains on the carrier throughout n. Separation from the product formed is simple. stable upon storage and can be washed out repeat- thout losing activity. Pref. are membranes of n or zein. 19.4.72 as 219063 (8pp279)

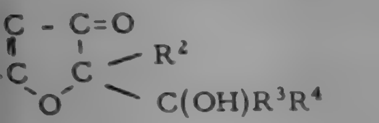
D13 08645V/05 =DS 2335-277

vouring agents - consisting of 2,5-dimethyl-4-hydroxy-3- none/carbonyl cpd reaction prods

EVER NV 12.07.72-GB-032653

*(02.08.79) *NL7309-647 A23l-01/22 C07d-307/60*

bstd. furenidones have formula (I):-



(where R^1 and R^2 are 1-4C alkyl; R^3 is H or Me and R^4 is H, 2-10C alkyl or alkenyl or benzyl, Ph, furyl, Me-furyl or hydroxymethylfuryl; provided R^4 contains $\leq$ 4C when R^3 is Me).

are prepd. by reacting a dialkyl-furenidone having g (I) where H replaces the $-C(OH)R^3R^4$ gp.) with a nyl gp. having formula R^3R^4CO, in a polar solvent, presence of an acid catalyst.

have high stability to storage and water and are or improving the aroma properties of foodstuffs, . foods heated above 100 °C for consumption. 73 as 335277 (6pp200)

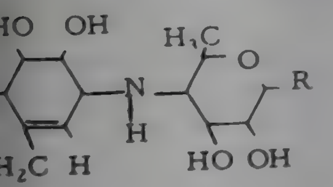
D13 67509W/41 =DS 2413-720

bial amino-sugar cpds as feed-additives - to increase meat/fat and improve feed utilization

YER AG 21.03.74-DT-413720

*3 C02 (02.08.79) *DT2413-720 A23k-01/22*

stuffs containing at least one aminosugar of general ula (I):-



(I)

in which R= an oligosaccharide chain with 1-40 hexose residues; given in quantities of 0.5 mg - 2.5 g/kg body-weight/day.

(I) prevent undesirable fat increase in animals in favour of increased meat production. (I) may be used edstuffs for agricultural animals esp. pigs and chicks, g them more meat and less fat as well as a better of the feed resulting in less protein requirement in the . (I) may also be used for other animals including pets fish.

Preparation comprises culturing micro-organisms of family Actinoplanaceae, esp. strains of Actinoplanes SE 50 etc. (CBS 961.7o) Media used contain C- and ources, salts and antifoam agent. The length of chain epends on the C-source in the medium e.g. starch- media contg. maltose, produce predominantly derivs. I) with 2-3 hexose units. 21.3.74 as 413720 Div. in 2836 (8pp279)

G- ★ D13 58291B/32 ★DT 2804-108

d evaporation plant esp. for milk - utilises cooling water and aust from Diesel engine driving vapour compressor

WIEGAND KARLSRUHE 31.01.78-DT-804108

J01 (02.08.79) B01d-01/28

plant for the evaporation of a fluid, the vapours from a parator at the outlet of a heater are compressed and re- ned to the heater. The compressor is driven by an inter al combustion engine which delivers its hot cooling wat- and exhaust gases to a heat exchanger for preheating e fluid.

ll available heat and saves

804108(10pp39)

RALS D13 17550A/09 #GB 1549-891

Proteinaceous food product prodn. of good toughness - by freezing a protein slurry in a helical configuration and heat setting, useful e.g. as meat substitute

RALSTON PURINA CO 01.06.76-US-691654 (01.11.77-GB-045464)

*(08.08.79) *US4073-962 +C07g-07*

Prepn. of a protein food prod. is described, in which an aq. slurry of a proteinaceous material having a solids content of ⩾5 wt.%, is frozen whilst being conveyed along a helical path to form layers of ice crystals alternating with helical layers of proteinaceous material. The frozen prod is heated to heat-set the helical layers of proteinaceous material and to melt the ice crystals.

Pref. the slurry is conveyed along the helical path by a screw extruder with helical flight screws. Pref. freezing is effected by passing a coolant or refrigerant through a jacket around at least part of the extruder barrel.

The food prod. has improved toughness and the chewy characteristics of real meat. 1.11.77 as 045464 (8pp924)

UNIL D13 79419X/43 =GB 1550-000

Vented packs for aseptic pasteurised food - to depressure heat treated packs without contamination

UNILEVER LTD 14.04.75-LU-072277

*A92 Q31 Q32 +Q34 (08.08.79) *BE-840-703 +A23l-01/* A23l-03/10*

Water containing foodstuffs are aseptically packaged by placing the food in an impervious film to form a package with discrete vents, heating the package to the pasteurisation or sterilisation temp.at first with the vents open and finally with them closed to seal the package. Before heatin to effect sealing the package is cooled with the vents open to prevent collapse when finally cooled. The free path of the vents is smaller than the length.

The vents are pref. straight channels, each having a max. cross sectional area <2.5 mm.^{2} Dough can be baked with the vents open. 13.4.76 as 015046 (4pp1376)

MLCW D13 41732Y/24 =GB 1550-008

Dry powder flavouring agents - contg. aromatising agent entrained in a matrix of a disaccharide and a carbohydrate

MALLINCKRODT INC 12.12.75-US-640189

*(08.08.79) *BE-849-319 A23l-01/22*

A particulate flavouring material is prepd. comprising a flavouring agent fixed in a particulate matrix. The matrix contains lactose and a starch hydrolysate in a ratio such that the amt. of flavouring agent entrapped in the matrix is ⩾30% of the flavouring material, and the amt. of flavouring agent entrapped on the surface of the matrix is <4% of the flavouring material.

Pref. the matrix comprises 60 wt.% lactose and 40 wt.% starch hydrolysate. The amt. of flavouring agent entrapped on the surface of the matrix is <2% of flavouring material.

This process is esp. used to fix essential flavouring oils in many different types of organic matrices to provide stable free flowing powders which contain the oils for flavour release when incorporated into many types of foods. 10.12.76 as 051707 (4pp931)

IMPU- D13 59749X/32 =GB 1550-138

Butterlike products of low fat content - from fat-in-water emulsions by supplying mechanical energy

KOMB IMPULSA VEB (BALL/) 01.07.75-DL-186981

*+P13 R16 R26 (08.08.79) *DL-120-119 A23c-15 +A01j-15*

In a method for the mfr. of low fat butter-like products in which energy is supplied mechanically to a fat-in-water emulsion, the transition from the above emulsion to an intermediate structure is detected by measuring the conductivity of the material. The mechanical energy is stopped before the intermediate structure transforms to a granular water-in-fat emulsion in an aqueous phase.

Pref. the original emulsion is cream. The residence time in a chamber is controlled so that the product leaving is at the intermediate structure stage. 1.7.76 as 027395 (5pp1376)

ISEN ★ D13 58756B/32 ★J5 4080-363

Board for sepg. unpolished rice grains from unrefined rice mixt. - made of extruding molten resin onto a casting roll with a rough outer wall and contg. cooling water in a hollow space

ISEKI AGRIC MACH MFG KK 08.12.77-JA-147555

A88 (A32) (27.06.79) B29c-15

A board is provided for sepg. an unrefined rice mixt. into unhulled (rough) and unpolished (brown) rices , utilising the difference of their specific weights; to reduce the total wt. of the board, it is made of a synthetic resin, and it includes edges formed on one side to provide a fluidic friction resistance over the rough surface to the rice mixt. board is reciprocally swung to effect the sepn.

The board is produced by extruding around a casting roll having a rough outer side wall and contg. coolant water in a hollow space to cool the back side of the resin under moulding. 8.12.77 as 147555(5pp26)

RIKA ★ D13 58787B/32 ★J5 4080-413

Agricultural fungicide contg. sodium bi:carbonate as active agent - also useful for controlling diseases, during storage, of harvested crops

RIKAGAKU RES LABS KK 00.00.78-JA-052903 (27.11.74-JA-136492)

C03 (27.06.79) A01n-11

The active cpd. shows excellent effects in the control of disease caused by plant pathogenic bacteria and in the control of storage-disease of harvested crops. The active cpd. is effective against diseases of rice plant, anthracnose of cucumber, powdery mildew of cucumber, canker of citrus and like plant diseases, and to storage-diseases (e.g. penicillium italichum, penicillium digitatum, Botrytis cinerea, Diaporthe citri, Cloesporium laeticolor) and is non-toxic to humans and animals.

In an example, 20 pts. of the active cpd. 2 pts. of white carbon, 2 pts. of sodium lignin-sulphonate, 4 pts. of polyoxyethylene alkyl ether and 72 pts. of clay are mixed and pulverised to prepare a wettable powder. In use, it is diluted 1000 times with water.

The active cpd. is generally used in the form of granule, powder, emulsion, tablet, spray, fumigant, etc. It is possible to use the present agent in combination with herbicide, insecticide, fertiliser and soil-conditioner. 1000 ppm of the active cpd. shows 100% control after 3 days, to penicillium digitatum. 27.11.74 as 52903/78 Div. ex 136492/74(4pp108)

TANA ★ D13 58798B/32 ★J5 4080-451

Peach nectar mfr. from peach waste and peach lees - by treating with enzyme having hemicellulase and pectinase activity, and filtering before mixing with normal peach nectar material

TANABE PHARMACEUTICAL KK 02.12.77-JA-145578

(27.06.79) A23l-02/02

The method comprises (1) reacting an enzymic agent showing hemicellulase activity and pectinase activity with (a) peach waste obtd. when removing kernal from peach fruits and/or (b) peach lees obtd. when straining or pressing peach fruits, for decomposing and solubilising the flesh and the pulp included in the peach waste (a) and/or the peach lees (b) and (2) straining or filtering the enzymically decomposed prod.

Peach waste and peach lees, which have previously been discarded and contain remarkable amt. of peach flesh, are treated enzymically and thus recovered material can be mixed with normal peach nectar material. Thus peach material can be utilised effectively and the waste can be made almost free of substances which causes pollution problems. 2.12.77 as 145578 (6pp5)

SNOW ★ D13 58801B/32 ★J5 4080-458

Powdery bean milk prepn. - by dehusking soybeans, wet heating , cooling, adding milk component, fermenting with lactic acid bacteria and yeast, drying and pulverising

SNOW BRAND MILK PRODUCTS (CHOK-) 09.12.77-JA-147193

(27.06.79) A23c-09/12 A23c-11 A23l-01/20

Powdery bean milk is prepd. by (a) dehusking whole soybeans, (b) wet-heating, (c) cooling, (d) adding milk compo-

seasoning, alkaline substance, etc. in the fermente
obtd. in (e) and emulsifying the mixt.

Powdery bean milk which is free of bean smell a
cellent in preservative property, dissolving propert
ste and flavour and digestive property, can be inexp
ely.

As milk component skimmed milk, powdery milk
powder, casein Na, etc. can be used, in amt. of 2-
on steamed soybean. As lactic acid bacteria Strepto
lactis, Lactobacillus bulgaricus, L. acidophilus, et
be used in amt. of 2-3 w/w% on the material. As ye
Saccharomyces cereviseae, etc. can be used 0.1-0.
%. 9.12.77 as 147193 (5pp5)

KANE- ★ D13 58802B/32 ★J5 40

Cold-water dispersible foaming drink granules - have core
fruit and/or vegetable components, sugar, sour compone
sodium bi:carbonate, coated with excipient and foamer

KANEBO SHOKUHIN KK 02.12.77-JA-145575

(27.06.79) A23l-02/02

Granules comprise a core contg. (a) effective compo
of fruit and/or vegetables; (b) sugar; (c) sour compo
and (d) Na bicarbonate, coated with a mixt. of excipi
and foaming agent.

Granules are readily dispersed in cold water with
ming and the dispersion is foamed uniformly. The fo
serve to stir the dispersion and to break up the fruit
or vegetable components. The drink obtd. is not only
reshing, but also excellent in appearance, taste, flav
and preservative stability.

Pref. the fruit and/or vegetable components are w
soluble and/or water dispersible. Sour component is
combined as 7-20 w/w% in the drink and the sour com
ent and Na bicarbonate are pref. present in a wt. rat
1 : 0.5-1.5. Pref. foaming agents are processed albu
cpds. obtd. from animals or plants. 2.12.77 as 1455
(4pp5)

NIOF ★ D13 58803B/32 ★J5 40

Prepn. of butter flavour - by mixing oil, fat, skimmed milk sol
water and decomposing with lipase, protease and/or lactase

NIPPON OILS & FATS KK 06.12.77-JA-145701

(27.06.79) A23l-01/22

The method comprises combining oil and fat 10-60 w
skimmed milk solid 5-35 w/w% and water 30-80 w/w
and decomposing the mixt. with lipase, protease and/
lactase.

As oil and fat beef tallow, butter oil and eater-exc
nge oil can be used singly or together and among them
pure butter oil and the ester-exchange oil obtd. by es
exchanging the mixt. consisting of tallow 83.8%, trim
stin 6.5%, trilaurin 1.5%, tricaprin 1.8%, tricapryl
tricapron 1.5% and tributyrin 4.0%, can be used favou
ably. As lipase that obtd. from the microbes of Asper
llus, Rhizopus and Mucor and animals such as infant
eep, calf, pig, etc. can be used. As protease that obt
from the microbes of Aspergillus, Rhizopus, Strepto
ces, etc. and that obtd. from plants such as bromelin
papain, etc. can be used. As lactase that obtd. from
microbes of Saccharomyces, can be used.

Excellent butter flavour can be prepd. from inexpe
ive materials which are readily available. 6.12.77 as
145701 (3pp5)

MORI/ ★ D13 58851B/32 ★J5 408

Nutritious animal feed - contains a powder or liq. obtd. by
activation of oyster shells

MORIYAMA M 05.12.77-JA-145132

C03 (27.06.79) A23k-01/17

The powder or liq. obtd. by ionic activation of oyster
ells by electrolysis, contg. CaO , MgO, Fe_2O_3, NaO
K_2O, Al_2O_3, TiO_2, SiO_2, P_2O_5, Cl, SO_3, and CO_2, is d
olved in natural water or a feed, or compounded with
feed.

The feed contains a large amt. (40-80%) of easily s
ble calcium and has a high but well-balanced nutrition
value. 5.12.77 as 145132 (2pp117)

★ D13 58852B/32 ★J5 4080-893
n bait for fishing - based on aminoacid(s); fatty acids etc.
naterials, e.g. albuminous materials which have a high mol.
l layer
K 06.12.77-JA-146769
P14 (27.06.79) A01k-85
tation bait for fishing was developed which is prepd.
mixing materials contg. mainly amino acids, fatty
etc., having amino acid gp. connected with choline,
amine, serine, etc., e.g., animal or vegetable
nous materials, synthetic albuminous materials,
moulding into granules of a dia. of several mm or a
string form; then (2) heating the moulded albumin-
aterial and then subjecting to purifcn. treatment us-
organic solvent and a special soln. to deposit a high
cular transparent colloidal layer on the surface of
oulded material.
s bait, which is analogous to natural fish spawn in
, appearance, odour, etc., has a great attractive
on fish, and also cannot be destroyed easily by fish-
ok during use because the colloidal layer on its sur-
as sufficiently high mechanical strength and elastic-
.12.77 as 146769 (2pp117)

★ D13 58913B/32 ★J5 4081-197
al of solvent from purified phosphoric acid - by steam distn.,
ed charcoal treatment and then treating with hydrogen
le
TRAL GLASS KK 13.12.77-JA-148840
C04 E36 (28.06.79) C01b-25/18
small amt. of solvent remaining in purified phosph-
cid obtd. by extracting crude phosphoric acid (wet
s) with an organic solvent, esp. alkylphosphoric es-
. is completely removed by (1) steam distilling to
-off completely alkylcellosolve, e.g. butylcellosolve
ormed by hydrolysis of the alkylphosphoric ester, (2)
g it with an activated charcoal, in amts. of 0.5-5 wt.
.t. amt. of H_3PO_4, to remove the alkylphosphoric
still remaining and (4) subsequently further treating
h H_2O_2 in an amt. of 0.3-2 wt.% w.r.t. of 100%-H_3PO
completely decompose any alkyl phosphoric ester still
nt. When the activated charcoal- and H_2O_2-treatment
re effected in opposite order, foaming occurs which is
esirable.
e H_3PO_4 thus purified is suitable for use in food and
cine etc. 13.12.77 as 148840(4pp34)

V ★ D13 59218B/32 ★J7 9019-448
. of frozen foods contg. mayonnaise - by adding mixt. of
n, starch hydrolysate and mayonnaise to foodstuff prior to
ng
OW BRAND MILK PRODUCTS 05.07.72-JA-066629
(16.07.79) A23l-01
xt. of mayonnaise, gelatin and starch hydrolysate of
5-15 is mixed with a foodstuff, followed by freezing
epn. of mayonnaise or water is observed on de-freez-
he foodstuff. 5.7.72 as 066629 A231-1/00,(16.7.79)
W BRAND MILK PRODUCTS (3pp22) (J4 9026439)

★ D13 59219B/32 ★J7 9019-449
y-to-cook packaged rice - obtd. by mixing rice, water and
e viscous liq. dispersant and packaging the mixt.
AHI DOW KK 17.11.73-JA-128809
(16.07.79) A23l-01/10
is mixed with water necessary for boiling the rice
edible viscous liq. which can disperse the rice, and
e mixt. is package. In this way, packaged rice can
ly be prepd. automatically at high efficiency.
1.73 as 128809 A231-1/10 (16.7.79) ASAHI DOW KK
22) (J5 0077558)

W ★ D13 59220B/32 ★J7 9019-451
ng soybean without producing soybean odour - by boiling in
r contg. organic and orthophosphoric acid and washing with
water during and after this process
NOW BRAND MILK PRODUCTS (CHOK-) 16.09.71-JA-071248
(16.07.79) A23l-01/20
ean is dehusked and boiled under pressure in water
g. organic acid and orthophosphoric acid. During the

after boiling is completed, the soybean is again washed with hot water. 16.9.71 as 071248 A231-1/20 (16.7.79) SNOW BRAND MILK PRODUCTS (2pp22) (J4 8036357)

MILE D13 15025X/09 =J7 9019-453
Wet-spun vegetable protein fibres - to give foodstuff with meat-like texture
MILES LABORATORIES INC 25[illegible]74-US-509287
*F01 (D12) (16.07.79) *BE-833-[illegible] A23j-03 A23l-01/20*

Drawn moist protein filaments are prepd. by (a) prepn. of a first aq. suspension of pulverised degreased vegetable matter pref. contg. 45-55 wt. % (dry) of protein and N_2 solubility index of at least 60%, a beta-amylase activity of at least 10 units/g. and particle size at least 14 microns, (b) adjusting the pH to approx. the iso-electric pt. of the vegetable protein e.g. pH 4.4-4.6 (c) sepn. of the solid matter from the liq. phase, (d) prepn. of a second aq. suspension from the sepd. solids, pref. at a concn. of approx. 20% wt./vol. based on total vol. (e) adjusting the pH to alkaline to give a viscosity suitable for drawing the prod. e.g. pH 12.4-13 and (f) pressing the prod. mass through an orifice into a coagulation bath to form proteinous filaments. Suitable vegetable matter is soya, peanust and peas

The filaments are used as a foodstuff for humans having the appearance and taste of natural meat, fish or poultry. A nutrious prod. is obtd. froma normally unacceptable source being a fibrous consistency and acceptable taste. 22.9.75 as 113785 (clg. 25.9.74-US-509287) A23j-3/00; A231-1/20 (16.7.79) MILES LABORATORIES INC (7pp) (J5 1064025)

DNAS/ ★ D13 B/32 ★PT --69-013
Prepn. of animal feeds for ruminants - from materials contg. aldoses
DO NASCIMENTO J M 29.12.78-PT-069013
*C03 (24.07.79) A23k-00/**

HEAT= ★ D13 59319B/32 ★SU -629-419
Vibrating fluidised layer drying of friable material - using different temp. and velocity of drying agent when blowing through layer top and bottom
HEAT MASS TRANSFER (CONF=) 17.05.77-SU-484800
Q76 (23.09.78) F26b-03/08 F26b-17/24

The free flowing material vibrating fluidised layer drying method can be used in the confectionery industry. The method is carried out by blowing the drying agent through the material layer alternately from the top and the bottom. The drying agent used has variable velocity and temp.

To intensify the drying process, the ratio between the drying agents velocities is chosen depending on the layer height redn. of 20-40%, when blowing from the top, w.r.t. the layer height when blowing from the bottom. The drying agent temp. difference is 50-150°C.

Sheiiman, V.A., Lyuboshits, A.I., Kaplan, V.Ya. et al. Bul. 39/25.10.78. 17.5.77 as 484800 (2pp110)

SAFA= ★ D13 59349B/32 ★SU -629-498
Estimation of 2,4-di:chlorophenoxy-acetic acid herbicide in grain - by extraction with alcohol, treatment with lead acetate and chromatographic separation
SARAT FARM HYGIENE 01.12.76-SU-427921
J04 R16 (19.09.78) G01n-31/08

Determination of herbicidal 2,4-dichloro-phenoxy-acetic acid in grain cultures includes extraction with organic solvent, purificn. of extract and subsequent chromatographic analysis.

The accuracy of the determination is increased if fragmented grain is extd. with ethanol and extract is purified by treatment with aq. 10% lead acetate to ppte. the proteins. The extract is then treated at 60-65% with 1.5% alcoholic lead acetate to ppte. lipids. After filtration the herbicide is extd. with chloroform and sepd. by gas chromatography to determine the amt. of herbicide in grain tissue.

The removal of fats and proteins from organic extract using lead acetate reduces the error of qualitative determination of above herbicide in grain from 27% to 8%. Kiryukhina, N.N., Kolotusha, L.I. Bul. 39/25.10.78. 1.12.76 as 427921 (2pp938)

MOKR= ★ D13 59374B/32 ★SU -629-913

Candy mass shaper - has row of cylinders and pistons to which mass is fed by screws from measuring chamber, to be dropped past chop-off strip

MOSC KRASNYI OKTYAB 30.06.77-SU-502374
(01.11.78) A23g-03/12

The equipment including a feeding hopper, measuring chamber, with discharge channels, pistons and chop-off strip. Returnable waste materials are reduced and the quality of shaping is improved by fitting several hollow cylinders, each one mounted vertically above a discharge channel so that it is capable of moving up and down. The pistons are disposed inside the cylinders and the chop-off strip is fastened below the measuring chamber and has exit holes. Intermittently-active screws are installed in front of the measuring chamber.

Glonin, E.K., Ezerskaya, E.A., Malysheva, L.V. et al. Bul. 40/30.10.78. 30.6.77 as 502374 (2pp29)

ODFO= ★ D13 59375B/32 ★SU -629-914

Processing buckwheat grains for use in food - by steaming and then thermal treatment in alternating electromagnetic field to increase yield of groats

ODESS FOOD IND TECH 22.06.77-SU-500267
(01.11.78) A23l-01/10

Pretreatment of buckwheat grains, prior to processing to groats, comprises mechanical cleaning, washing in warm water, leaving aside for some time, xerothermal treatment, drying and cooling.

This process is accelerated and the yield of groats is increased by leaving the grains aside for 2.8-4.6 hr. with periodical treatment with dry steam (0.2-0.3 x 10^5Pa) for 5-7 mins., at 16-22 min. intervals; and by carrying out the xerothermal treatment with simultaneous action of electric a.c. (50-71 x 10^4 A/m) until the moisture content is reduced to 3-4%.

Yakovenko, V.A., and Kaminskii, V.D. Bul. 40/30.10.78 22.6.77 as 500267 (2pp70)

HUNF ★ D13 59664B/32 ★US 4162-011

Appts. for sorting soft from hard fruits - by rolling the fruit down an incline onto a backwardly moving conveyor which removes the soft fruit

HUNT FOODS & IND INC 18.10.76-US-733397
P43 (24.07.79) B07c-05

Hard and soft fruit is sepd. by rolling the fruit down an inclined plate onto a taught, horizontal conveyor belt moving in a direction opposite that of the fruit. The hard fruit have sufficient velocity and rigidity to bounce to the forward end of the belt and thence onto a take-off conveyor whilst the soft fruit does not and is carried rearwardly by the belt to a reject station.

Provides automatic accurate separation of hard and soft fruit. The system is of particular use in sorting out firm tomatoes for subsequent eye peeling from soft fruit not successfully susceptible to such treatment. 18.10.76 as 733397 (6pp525).

CREP- ★ D13 59676B/32 ★US 4162-127

Freezing and mixing chamber for ice cream - having a dasher with an imperforate leading end to control the mixing temperature

CREPACO INC 27.12.77-US-864631
(24.07.79) A23g-09/16

Appts. for the mfr. of a mixture of ice cream and another ingredient, such as air, includes a horizontal cylindrical freezing chamber having an inlet at one end and an outlet at the other. Located within the chamber, which has an outer chamber containing refrigerant, is a dasher assembly.

The dasher assembly comprises an outer fixed tube, joined at its ends to end plates of the chamber, and an inner rotating tube comprising an upstream imperforate section and a downstream section having axial slot
Located with the downstream section is a bladed a
mounted upon a fixed hollow shaft. The inner tube
fins which sweep to space between the inner and ou
tubes.

In use, ice cream is fed to the chamber and pas
tially between the imperforate section of the inner
and the outer tube to the perforate section where it
thoroughly mixed by the agitator with a second ingr
introduced through the fixed shaft. Finally the mix
the chamber through the outlet. The imperforate s
enables the temperature of the ice cream to be con
to an optimum (26-27°F) before actual mixing take
27.12.77 as 864631 (9pp525).

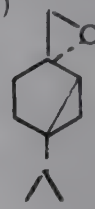
LIOC D13 76755A/43 =US

**Spiro-5-isopropyl-bi:cyclo(3,1.0)hexane-2,2′ oxirane iso
useful as mint flavours-perfumes, made in fewer stages an
yields from 3-isopropyl-2 cyclopentenone-1 and sulph(o
methylide(s)**

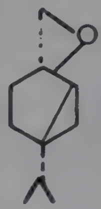
LION DENTIFRICE KK 29.09.77-JA-117160 (06.04.77-JA-0
*E13 (24.07.79) *DT2814-558 C07d-303/04*

Spiro (5-isopropylbicyclo (3.1.0) hexane -2, 2'-oxir
cpds. are prepd. as either the trans-isomer having
ical structural formula (I), or the cis-isomer havin
mula (II).

(I)



(II)



The cpds. are prepd.
acting 3-isopropyl 2-cy
ten-1-one with sulphoxo
methylide, reacting 5-i
pylbicyclo (3.1.0) hexan
with sulphonium methyli
sulphoxonium methylide
acting 3-isopropyl 2-cy
ten-1-one with sulphonium methylide to form 5-isop
bicyclo (3.1.0) hexan-2-one and then reacting with
nium methylide or sulphoxonium methylide.

Prods. prepd. are esp. used to prepare trans- a
cis-sabinene hydrates, which are used as intensifie
spearmint type or peppermint type flavours. 27.3.
890337 (+6.6.77 (2), 16.6.77 - JA - 066567/8, 0713
(15pp931).

DAND- ★ D13 59769B/32 ★US 4

**Extruded dry pet food contg. aldo-hexose(s) or keto-hexose(
yieldable elastic structure for chewy effect**

DANDY J CO 21.11.77-US-853540
C03 (24.07.79) A23l-01/09

Extruded food comprising 50-60% ground cereal gra
15-35% non-adhesive protein (inclusive of the protei
the cereal grains), 7½ - 20% aldohexoses and/or ket
oses and 10-15% water. The food has a microstruct
as seen by scanning electromicroscopy at 200 X, co
ed mostly of convoluted layers with inclusions in fis
like spaces of elongated chamber-like cells. It is c
pressively deformable by > 20% of its thickness with
disintegration by crumbling and without loss of much
elastic resiliency.

Food has a unique, soft, yieldingly elastic struct
give pet food that is esp. chewy, in contrast to the u
brittle or crumbly dry pet foods. Polyhydrins as te
ser or preservative are not required in the food. 21
as 853540 (9pp1248).

See Also

D16 EP ---3318 D16 J7 9019466 D16 US 41621
D23 US 4162335

D14: FOODSTUFF MACHINERY

- ★ D14 B/32 ★DK 7705-783
entrator for solid suspended in liq.
UEGER I A/S 23.12.77-DK-005783
(16.07.79) C02c

/ ★ D14 58456B/32 ★EP ---3-394
ning compressible viscous material, e.g. dough in extruder -
rotary gate having offset inlet and outlet and compacting

RRING M T A 24.01.78-GB-002770
3 (08.08.79) A21c-05/02 A22c-07 G01f-11/02
E(BE, CH, DT, FR, SW).

rtioning machine comprises a body having an inlet
ected to a feed hopper. A rotary gate is movable in
ody to open the inlet and an outlet selectively. A
n is provided for compacting the material in the body
or extruding a predetermined quantity from the outlet.
apertures in the rotary gate are offset from one an-
longitudinally of the rotational axis.

sed for portioning compressible viscous materials
as dough or slurries of food products such as meat
ucts. The piston is provided with an adjustable
sure sensitive device for preselection of the density
e material compacted. The material discharged has
istent vol. and density. The machine is compact and
few individual components.
.79 as 300035 (12pp1044).
SR: US2539457; US1648554; GB-614714; GB1004292;
142290.

★ D14 58509B/32 ★FR 2407-872
able container for preserving food and flowers - contg.
onaceous molecular sieve contg. adsorbed bromine (BR
.79)
AKEDA CHEMICAL IND KK (RENS) 07.11.77-JA-133817
01 +P28 Q34 (06.07.79) A01n-03 A47j-47/02 B01d-53/14
65d-81/28 B65d-85/50
molecular sieve has micropores of 4-6°A dia. The
tainer material pref. has a permeability to carbon di-
de at 25°C of 5,000 to 100,000 ml/m^2/24 hr. The amt.
nolecular sieve used is pref. 0.5-30 pref. 1-10 gm/kg
roduct to be preserved.
The ethylene evolved is rapidly adsorbed and, unlike
ive carbon, without losing any of the intrinsic flavour
smell of the fruit or flower. 6.11.78 as 031381 (18pp)

/ ★ D14 58528B/32 ★FR 2408-279
king and grilling fuel element for foodstuffs - secured in fibre-
s jacket in form of charcoal impregnated with inflammable liq.
RSING J H 04.11.77-FR-033293
H09 P28 Q34 (06.07.79) A23b-04/04 A47j-37/07 B65d-65/38
365d-75/30 C10l-05
l element, which is easily handled, comprises an in-
nbustible jacket to contain the fuel and retain the ashes.
fibrous, porous jacket is made by felting glass fibres
a sheet which is then impregnated with a binder. The
ric is folded to form a tube and the sides are kept in
ition by clips; the ends are bent over and secured by
ther row of clips to keep the fuel in position. The lat-
consists of granulated wood charcoal treated with a
quetting liq. which acts as an igniting fluid. A suitable
is isododecane but paraffins with a flash point of the
ler of 60°C. can be used.
Two superimposed sheets of a non-porous, pliable
stic material, such as polyethylene, polypropylene,
yvinyl chloride or polyvinylidene chloride enclose the
ole assembly and are sealed together around the per-
ery on all four sides. Before final sealing, the enve-
e is evacuated in a chamber at a pressure of 5 mm of
rcury so that the igniting fluid remains uniformly dis-
buted throughout the fuel.

The element can be used more easily than the usual
wood chips or sawdust; the foodstuffs can be grilled or
smoked under better conditions. 4.11.77 as U33293 (7pp

MOMD ★ D14 59376B/32 ★SU -629-9
Food conserves prodn. appts. - has perforated cylinder and dru
mounted coaxially, to permit heat-carrier to contact meat f
dewatering
MOSCOW MEAT DAIRY INST 01.06.77-SU-491448
(01.11.78) A23l-03
Device for conserving food products in a liquid heat-carr
ier, e.g. meat, fish, vegetables, and fruits, which are
dewatered under vacuum, consists of a vacuum chamber
with a perforated drum installed inside it, so that it is ca
-able of rotation, a storage tank for the heat-carrier, he
-exchanger, pump and pipelines system. The heat and
mass transfer are intensified and the duration of the pro-
cess is reduced, by also installing a perforated cylinder,
so that it can rotate inside the perforated drum. The cyl
inder has blades on its inner surface. The vacuum cham-
ber also has a heat-carrier level indicator in its lower
section.
Grigorev, A.D., Palmin, Yu.V. Bul. 40/30.10.78.
1.6.77 as 491448 (3pp29)

AMLA= ★ D14 59377B/32 ★SU -629-91
Electro-plasmolyser for raw vegetable material - ha
magnetohydrodynamic pump worked by an AC fed to windings, t
treat and convey the material
AS MOLD APP PHYSICS 01.06.77-SU-491429
(01.11.78) A23n-01
Electroplasmolyser for processing raw vegetable materia
incorporates a magneto-hydrodynamic pump as the active
component. As an alternating current is supplied to the
primary winding a variable magnetic flux is generated and
this induces a second alternating voltage in the secondary
winding. This second current is fed through the electrod-
es into the raw material moving through the pipe-line, in-
ducing the variable electric current to pass through the
material. The current acts on the protoplasmic sheaths o
the cell structure, breaking them down, so that the
plasmolysis can take place.
Furer, L.A., Koval, N.P., Shcheglov, Yu.A. Bul. 40/
30.10.78. 1.6.77 as 491429 (2pp29)

CREP- ★ D14 59651B/32 ★US 4161-909
Ultrahigh temperature heating system for liquids - in which liquid
from a steam heated curtain heater is pumped to a holder tube, e.g.
for pasteurising milk
CREPACO INC 08.09.78-US-940718
(24.07.79) A23c-03/02
Appts. for ultrahigh temp. treatment of liquid, e.g. milk to pasteurise it, comprises a vertical housing in which a falling curtain of the liquid, preheated to a first temp., is heated by a jet of steam. The resultant liquid/water/steam mixt. at a second temp. is pumped from the bottom of the housing, at a rate sufficient to prevent any build up in the housing, to a conventional holder tube where it is maintained for a desired period at the second temperature.

The pressure of pumping is such that all of the steam in the mixt. is condensed. Knowing the specific heat etc., of the liquid to be heated the flow rate of steam and liquid can be controlled to give the desired rise in temperature in the housing. When milk is being pasteurised it is preheated to 170°F and heated in the housing to 290°F.
8.9.78 as 940718 (6pp525).

See Also

D16 SU 630582 D12 DT 2803487

D15: WATER TREATMENT

VEVG- ★ D15 58028B/32 ★BE -873-958
Anaerobic treatment plant for effluent - with circulation from digester to settling tank induced by methane gas rising in central column
VER VAN GEBRUIKERS 18.09.78-NL-009488 (06.02.78-NL-001345)
(06.08.79) C02c

Water-borne effluent is treated anaerobically in a vessel comprising a digestion chamber equipped with a feed for the effluent, above the digester, a pptn. chamber with a central opening and an inclined floor, a column rising through the central hole in the floor of the pptn. chamber which overflows into an annular space between the column and a sleeve, a gas collector and an overflow for clean water. The bottom of the central column is dished outwards so that the methane gas generated flows into the column and induces a circulation of liq. upwards through the column and over the overflow.

To ensure that effective sepn. of the gas from the liquid takes place in the annular zone, a flocculant is pref. added The water and sludge flow beneath the lower lip of the sleeve into the settling chamber. The floor of the chamber is pref. inclined down toward the central opening to ensure that the sludge flows out between the central column and the lower edge of the floor. For larger treatment plants where this may be impractical, the floor is equipped with a mechanical sludge scraper.

Due to the construction of the central rising column and the arrangement of the settling chamber and digestion chamber, short circuiting of the digestion and settling streams is avoided. By adjusting the vertical postion of the column, the throughput can also be regulated. 6.2.79 as 873958 (16pp1370) (F1)

ASKO- ★ D15 58072B/32 ★CA 1054-307
Biological dry toilet with sepn. of urine from excrement - for evapn. of urine and composting of solid matter
ASKO-UPO OY 06.05.76-SF-001273
+P28 (15.05.79) A47k-11/02 C05f-03/06

Toilet comprises a box-shaped frame having on its top surface a toilet seat covered by a hinged lid. Within the frame is a composting space holding ⩾2 composting tanks which are rotatable about an axis offset from the vertical. In use one of the tanks has its opening beneath the hole beneath the toilet seat.

A separator comprises a flap and a follower. The flap is positioned beneath the seat. In the first position of the flap partially covers the hole whereas in its second position the follower pushes excrement into one of the composting tanks. In the first position the flap permits passage of urine to separate it from the excrement . The sepd. urine is collected in an evaporating basin.

The toilet separates at least part of the urine from excrement thus permitting the waste in the composting tank to come nearer to the optimum carbon/nitrogen ratio (about 35 to 1) for a composting process. 5.5.77 as 277740 (10pp295)

SCHM/ ★ D15 58085B/32 ★CA 1058-776
Modular aerator and separator for sewage plant - with grease trap and using upward sewage flow
SCHMID L A 04.06.76-CA-254082
(17.07.79) C02c-01/12

Appts. comprises a bottom wall which holds sludge derived from the sewage. The sewage moves upwardly through the appts. to a separation section. The sewage enters at the bottom of the apparatus where it is aerated both to induce the upward flow and to increase turbulence. Clarified liq. is removed from the top of the appts. Pref. the sewage is admitted through two opposed elongate slits, there being separate perforated aeration conduits for each sewage inlet.

The appts. may be dropped into a small sewage treat

"dropped in" to a sewage tank. Additionally the unit should only require minimum maintainence once ins 4.6.76 as 254082 (20pp295)

DIES/ ★ D15 58148B/32 ★DL -
Efficient prodn. of potable water on ships - using cooling round combustion engine with sec. controlled heating and to maintain balance
DIESSNER H 04.04.78-DL-204574
Q78 (23.05.79) F28d-01

Waste energy from combustion engines is recovered their cooling water circuit to provide energy for a f water plant. The cooling water temp. across the en is monitored and controlled by a controller.

If the energy absorption is insufficient, additional ing can be introduced. If the heat output from the en is inadequate, supplementary heating e.g. by steam i applied.

Used esp. in ships to produce fresh water. Gives roved thermal efficiency compared with conventiona tems. The cooling and fresh water systems can ope independently of each other. 4.4.78 as 204574 (8pp10

VYRM- D15 57365R/32 =DS 19
Removing iron from deep earth well water
VYRMETODER AB (REI /) 13.02.69-SF-000453
*(02.08.79) *BE-745-664 +C02b-01/26*

In a method to remove iron from water extracted fro deep groundwater well, feed water with an oxygen co is introduced into the ground formation surrounding well. A number of pipes are pushed into the ground are arranged on a radius of a few metres up to 100 n around the well. These tubes receive water by a pun from a branch pipe of the delivery main; oxygen is in ed upstream of the pump, together with NaOH or NaH if neutralisation is required.

This is an inexpensive method of removing iron ar preventing any clogging of the formations. 9.9.69 as 945605 (3pp39)

HORN- D15 09881U/08 =DS 21
Debris grating/rake assembly - for use with clarification tanks on prefabricated concrete components
HORNBACH A & W OHG (HOR -) 27.07.71-DT-137473
*(02.08.79) *DT2137-473 C02c-01/22*

A bar screen installation for sewage and water treatm plants has a central part which is deeper and leads to central bar screen which is higher and can be cleaned chanically. A wider and shallower part on both sides separated from the centre by overflow plates and lead bar screens which reach just to ground level and have be cleaned manually. The centre part is adequate to with normal dry weather flow and the side extensions receive the overflow.

This is sufficiently adaptable to be assembled from cast slabs which is much cheaper than in situ casting. 27.7.71 as 137473 (6pp39)

ELBI- D15 38591V/21 =DS 23
Water softener signalling device - warning lamp being actuat perm-anent magnet in float in cooperation with reed switch
ELBI SPA 10.11.72-IT-070541
*P28 R16 (02.08.79) *DT2354-662 C02b-01/76*

The ion exchange-type water softener for dish-washin machines includes a float in the salt container which c move up and down in a guide and includes a permanent magnet. When the salt concn. reaches its min. level the float has dropped, it actuates a reed switch. This switches on an external warning lamp to indicate that salt soln. must be regenerated.

Steps can thus be taken quickly to regenerate the s soln. The device is simple to instal and is functionall liable. 31.10.73 as 354662 (5pp39)

D15 36170W/22 =DS 2436-080

aration by differing densities - using separate stages of
paration coalescence and fine filtering

R INDS INC 19.11.73-US-417225

(02.08.79) *DT2436-080 B01d-17

nd solids are sepd. from oil, kerosene, Diesel
etrol by a device which combines the coalescent
f a turbine deflector with a filter action. The fluid
irst the lower part where a turbine deflector with
lades causes water and solids to be thrown against
and to accumulate at the bottom. Oil rises through
ar gap into upper filter part. The filter is mount-
of the outer wall; the oil passes it radially inward
ugh a perforated cylinder. A central tube guides
outlet.

combination of coalescence and filtration results
ch better purificn. efficiency. 26.7.74 as 436080

D15 42714W/26 =DS 2505-722

urification using rotary discs - in which treatment flow rate
ndent of disc speed

A NORRAHAMMAR 14.02.74-SW-001946

08.79) *BE-825-147 C02c-01/04

ical purification plant consists of a float which
a rotor. The rotor has a number of parallel
right angles to its centre line. Discs with a hole
entre alternate with discs with a slot around the
ry. The sewage which enters the revolving rotor
forced to travel with the air in a zigzag path throu-
aps between the discs which carry the biomass
he treated sewage is finally discharged from the
ough the basin walls.

is a simple and low-cost plant which has a better
age ratio and has a good efficiency. 12.2.75 as
(7pp39)

D15 28032B/15 =DS 2744-050

for trickling water tower - with corrugation inlets and outlet
ng on every other panel of plastics foils

ESSELWERKE AG 30.09.77-DT-744050

.08.79) *DT2744-050 C02b-01/10

king in a tower for water treatment, e.g. the aer-
drinking water, CO_2 deaeration or the biological
osition of organic constituents in waste water was
ed in the Parent Patent as consisting of several
of plastic material, with descending corrugations.
ad the same design and therefore tended to urge
plets to one side.

e addn., the corrugations of the second panel from
have the opposite survature at the entry compared
corrugations of the first panel at the exit. This
the droplets evenly over the full panel width.
7 as 744050 Add to 1759102 (3pp39)

D15 58205B/32 ★DT 2803-256

ite electrode for cells contg. sulphuric acid electrolytes - has
substrate coated with doped silicon and then lead di:oxide

AG 26.01.78-DT-803256

03 M25 (02.08.79) C25b-11/16

trically conducting Ti substrate (a) is coated with
rmediate layer(b) of metallic silicon and/or german
where layer(b) is doped with one or more elements
II of the periodic system; and layer(b) is covered
yer(c) of PbO_2 obtd. electrolytically by making the
substrate(ab) the anode in a plating bath. Layer(b)
doped with B, Al, and/or In; and this layer(b) may
ntain elements in the main gp. V of the periodic

d in sec. cells or other cells using H_2SO_4 electroly-
in the recovery of metals from waste water contg.
26.1.78 as 803256(8pp1144)

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r D15 58213B/32 ★DT 2803-328

extraction from settling basins - by movable collecting
and floats separator tank

CKE A 26.01.78-DT-803328

2.08.79) C02c-01/38

are collected from a settling basin in a sewage tre-
trough which skims along the
surface. A pump takes the floats through piping to a floats separator. This is a cylindrical tank with a conical bottom in which the floats/water mixture enters slowly in an upward direction in the lower third. The clear water is discharged to the drainage system and the floats are extracte from the top layers.

This improves the function of settling plant and keeps the water course receiving effluent water free from floats. 26.1.78 as 803328(7pp39)

OLTM/ ★ D15 58226B/32 ★DT 2803-472

Tangled thread mats for water works - are spun through different sized nozzles with threads uniformly bonded at intersections

OLTMANNS H 27.01.78-DT-803472

A32 F04 Q42 (02.08.79) D04h-03/02 E02b-03/14

A mat of tangled fibres, esp. for use in water works, is produced by an arrangement of spinnerets for a molten synthetic material, above a bath of a cooling medium, pref water, together with bodies, partly immersed in the water, between which the mat being formed is moved away. The spinnerets have outlets of different sizes and are offset to each other, relatively to their distance from the surface of the water.

Used for the prodn. of filter mats to be used in water undertakins, and have for pref. one surface with soft fine threads and the other surface with coarser and harder threads. These cannot be produced by existing methods, and the present invention make it possible to spin threads of different diameters simultaneously and maintain them in a uniform plastic condition so that at their intercrossing points a mat of uniformly bonded threads is produced. 27.1.78 as 803472(12pp1045)

VOIJ ★ D15 58253B/32 ★DT 2803-700

Purifying waste water from old paper processing - by mixing with calcium soaps to flocculate water repellent impurities e.g. printing ink

VOITH J M GMBH 28.01.78-DT-803700

E12 F09 (02.08.79) C02c-05/02

Washing- or waste-water formed in old paper-processing is purified from foreign bodies, esp. water-repellant amterials, (I), by admixing Ca soaps. The Ca soaps, acting as collectors for (I), are sepd. together with (I), by sedimentation, flotation, centrifuging or screening, and the purified water is recycled to paper processing.

Ca soaps flocculate with (I), e.g. to 1-5mm particle size. Printing ink particles are separated quickly. 28.1.78 as 803700(5pp200)

STEM ★ D15 58297B/32 ★DT 2804-164

Decarbonisation of cooling tower water in e.g. coal power stations - uses purified flue gases to regenerate exhausted ion exchangers

STEINMULLER L & C GMBH 01.02.78-DT-804164

(02.08.79) C02b-01/76

Decarbonisation of water used in a cooling tower, e.g. in coal-fired power station, comprises using all or part of the purified Flue gases to regenerate the exhausted cation exchangers used in treating the water.

Pref. the carbonic acid concn. in the gases is increased by passing them over a molecular sieve. The process avoids the use of expensive mineral acids. 1.2.78 as 804164(4pp903)

ICEB- ★ D15 58336B/32 ★DT 2900-404

Self stabilising floating tower - with platform joined by column to partly water filled buoyancy tank

ICEBERG TRANSPORT 01.02.78-FR-002715

H01 Q24 (02.08.79) B63b-35 B63b-39

A self-stabilising floating tower for use in offshore operations or in handling iceburgs includes a cap-shaped platform above water level which rests through a tubular column, partly filled with air, on a buoyancy tank. This tank has the shape of a central slice from a sphere and is open at the bottom. Its water content acts a a damping ballast.

This prevents violent tilting of the tower which could damage it when it hits an iceburg, Compared with the maximum amplitudes of the swell of the sea, these amplitudes of the vertical tower movements are < 20%. 8.1.79 as 900404(13pp39)

SAAR- D15 42492B/23 =EP ---3-216

Thermal sewage sludge treatment - utilising thermal energy from sludge oxidn. for thickening before oxidn.

SAARBERG-FERNWARME 01.12.77-DT-753537

*+Q73 (08.08.79) *DS2753-537 C02c-03 +F23g-07*

D/S: E(BE, CH, FR, GB, LU, NL, SW).

Sewage and other sludge with a content of combustible matter is subjected to oxidn. at elevated pressure and temp. The gas/vapour mixt. produced from the sludge during the oxidn. is used to thicken the sludge by indirect heat exchange prior to the oxidn. The accruing phases are extracted and processed separately.

This utilises the energy released by the oxidn. and saves the use of external energy. The salts dissolved in the raw sludge are retained in the residual liquor of the dewatered sludge.

29.11.78 as 101474 (11pp39).

(G) ISR: DT1800961; DT2422814; US3926129; DT2645150; DT2150414; DT1459487.

PASE D15 54792B/30 =EP ---3-327

Chemical-mechanical water treatment process - by flocculation and settling, including concn. of slurry before recycle

PASSAVANTW MICHELBACHER 18.01.78-DT-802066

*(08.08.79) *DT2802-066 C02b-01/20 +C02c-05/02*

D/S: E(CH, FR, GB, IT, NL).

Chemical-mechanical processing/purificn. of water comprises the following sequential stages carried out in separate zones: (a) mixing with a flocculating or pptg. agent; (b) mixing in contact slurry; (c) mixing in at least one flocculation auxiliary while applying stirring energy at > 20 W per cu.m. of reactor vol. and limiting contact time to $\ngtr 5$ min.; (d) reacting to form sedimentable particles, etc.; and (e) sepg. flocculate etc. from pure water.

The new features are (i) flocculate etc. is sepd. using inclined plates and/or tubular sedimentors; (ii) at least the part of the sludge to be recycled is concd. to > 1, pref. 3-8% solids content (wt.% after drying at 105°C) and (iii) a part of the conc. sludge is recycled as contact slurry and opt. also to zone (c).

Used for treatment of all types of ground, surface and waste water. Reduced investment and operating costs are obtd. and less space is required. More rapid sedimentation is achieved, the sediment is easily sepd. and only minimal amts. of dissolved auxiliaries remain in the purified water. In some cases, additional filtration of the treated water is unnecessary.

18.1.79 as 100148 (25pp1251).

(G) ISR: FR2339575; DT2026694; GB1418203; FR2304572; CH-361543; OE-304387; DS1139076; US2137966; US2348122; 1 Journal reference.

DUMA/ ★ D15 58510B/32 ★FR 2407-894

Purificn. of highly polluted organic effluent - by filtration through biodegradable rubbish which becomes enriched agricultural fertiliser

DUMAS G P 03.11.77-FR-033676

C04 (06.07.79) C02c-01/18 C05f-07

Purificn. is effected solely by passing the effluent through a set of filter sumps each contg. biodegradable material. The filter sumps are sunk into the base area of an inclined flow channel with slightly sloping sides. The purificn. capacity of the channel is determined experimentally from models.

Filter material packed into the sumps is pref. of little commercial value, partic. selected biodegradable constituents of household rubbish and/or process waste from the mfr. of animal or vegetable products. Waste material used for filtration can be pretreated in a variety of ways, e.g. sorting, screening, grinding, centrifuging, magnetic sepg. chopping, flotation, dehydration, chemical reaction etc.

The construction pref. includes an effluent reception tank for cooling, settling and flow balancing, an area for prepn. of filter material, a flow channel with filter sumps,

rain etc.

Capital and operating costs are about 10% to 30
conventional processes of equivalent capacity. No
power or mechanical equipment is involved. No sl
attention or maintenance is required. 3.11.77 as
(22pp448).

BELM/ ★ D15 58527B/32 ★FR

Motorised turbine aerator for liq. oxidn. and flotation sepr
installed in existing pretreatment tanks of effluent purificn.

BELMONTE N 02.11.77-ES-463778

J02 (06.07.79) B01f-03/04 B01f-05/16 C02c-05

A motorised agitator unit for gasifying, partic. ae
a liq. The unit comprises a tubular column with a
at the top coupled to a shaft extended through the c
to rotate an immersed, turbine impeller just below
bottom of the column. The impeller has radial bla
draw air down the column passage from inlets abov
surface of the liq. The impeller has also corresp.
gential blades to diffuse air into, and simultaneous
agitate, the liq.

The shaft is pref. carried in one bearing above
surface of the liq. and a second, water-lubricated
at the lower end, both bearings being fixed inside t
tubular column. Alternatively, the turbine impelle
shaft can be rigidly coupled to the motor shaft. Th
bottom of the column is pref. fitted with an externa
ular flange to form a horizontal diffuser disc to gui
bubbles out from the impeller.

Process is particularly for the aeration of pollut
effluent to promote biological purificn. by oxidation
and frequently simultaneously, process is for degre
a liq. by aeration which produces bubbles for flotat
sepn. of grease globules. Inexpensive and readily
to existing pretreatment vessels in effluent purificn
plants. 30.10.78 as U30704 (11pp448).

BADI D15 18316Y/11 =GB 1

High mol. wt. acrylamide copolymer retention and flocking
used as water in oil dispersion mixts. of cationic and
acrylamide copolymer dispersions NL020377)

BASF AG 28.08.75-DT-538281

*A14 F09 H01 (A97) (08.08.79) *DT2538-281 C08l-33*

Novel retention aids or flocculants are based on high
wt. polyacrylamides. They comprise a water-in-oil
mer dispersion contg., in the aq. phase, (a) 99.99-
% cationic polyacrylamide (I) and 0.01-5 wt.% anion
acrylamide (II), or (b) the opposite percentages of e
The polyacrylamides are present in separate droplet

Pref. (I) are copolymers contg. 10-90 wt.% ester
amino alcohol with (meth)acrylic acid, amide derive
from diamine and (meth)acrylic acid (the comonome
being in neutralised or quat. form); (II) are copolym
with 10-90 wt.% (meth)acrylic acid or their ammoni
alkali salt. (I) and (II) have mol. wt. of 1-25 x 10^6.

The prods. are used for clarifying aq. systems,
papermaking treatment of communal or industrial w
water, or as dispersants and protective colloids for
ling mud, or as auxiliary in sec. recovery of crude
flooding water. 27.8.76 as 035706 (4pp974)

GENE D15 02365Y/02 =GB 1

Antifoaming dimethyl polysiloxane compsn. - prepd. by dis
the dimethyl polysiloxane, adding a silicon dioxide fill
milling

GENERAL ELECTRIC CO 20.06.75-US-588700

*A26 F09 H01 (A97 D16 D17) (08.08.79) *DT2626-942
83/04*

Stable emulsifier antifoams are made by (a) dissolv
emulsifying agent in water; (b) dispersing a dimethyl
siloxane fluid in the soln.; (c) admixing a silazane-t
pptd. SiO_2 filler and (d) milling until the mixt. is ho
geneous and incapable of sepg. into two layers.

Pref. the compsn. also contains a bactericide, e
sorbic acid. Compsns. are non-flammable and have
variety of uses. 9.6.76 as 023829 (5pp974)

D15 46816Y/26 =GB 1549-950
(N)-(omega)-monoalkyl aminoalkyl-(meth acrylamides -
y reacting (meth)acrylic cpd. with appropriate diamine and
resulting intermediate
CO DEV CORP 18.03.76-US-668171
*E16 (08.08.79) *US4031-138 C07c-103/44 +C08g-18/16*
able N-(ω-monoalkylaminoalkyl)acrylamide or
rylamide monomers are of formula $CH_2=C(R_1)-CON-$
$_nH_{2n})-NHR_3$ (where R_1 and R_2 are each H or CH_3,
sopropyl or tert.butyl, and n is 2 or 3, provided
en R_1 is H, R_3 is tert.butyl).
f. the cpds. are prepd. by condensing 1 mole of a
acrylic cpd. of formula $CH_2=C(R_1)-CO-X$ (where X
gen, OH, or OR_4, R_4 being lower alkyl) with ≥2
of a diamine of formula $R_2NHC_nH_{2n}NHR_3$ to pro-
intermediate cpd. of formula: $R_3NHC_nH_{2n}N(R_2)CH_2-$
$CON(R_2)C_nH_{2n}NHR_3$, and heating the intermediate
a sufficient temp. to split off 1 mole of the diamine
nt.
new cpds. are useful as catalysts in the prodn. of
ethane foams. Also, the cpds., or the (co)polymers
d from them, may be used e.g. as polyelectrolytes
coagulation of low turbidity water, and as additives
flocculation or dewatering of sewage and in the coagu-
of rubber latex. 14.1.77 as 001429 (7pp990)

D15 32162A/18 =GB 1550-109
g aq. effluent esp. to remove phenol cpds. - with oven
ration and particle size restoration of adsorbent
D DR C & CO GMBH 18.01.77-DT-701815
*(08.08.79) *BE-862-523 +B01d-15/06 C02b-01/14*
bent used in an adsorption process is recovered by
ating it from any liquid using a screen, and convey-
adsorbent through a dose determining device to a
erating device. An undersize fraction, whose particle
are greater than 10% of the rated size, is separated
the adsorbent and processed until it reaches the rated
le size when it is returned to the adsorbent.
ef. the regeneration is a fluidised bed oven and the
bent is active C or Al_2O_3. Before regeneration, par-
above 50% the rated size are separated and then fed
regenerator. 10.1.78 as 000807 (5pp1376)

D15 18456Y/11 =GB 1550-129
ng waste waters contg. formaldehyde condensates - of
tic sulphonates, by flocculation with inorganic flocculant and
carbon treatment
D SOAP KK 01.09.75-JA-105012
*(A35) (08.08.79) *DT2637-288 C02b-01/20*
ce active condensates obtd. by condensing with form-
yde sulphonates of aromatic hydrocarbons or sulpho-
of heterocyclic cpds. are removed from waste wat-
y subjecting the water to both a flocculation treatment
≥1 inorganic flocculating agent and an activated car-
reatment.
ef. the waste water contains 1-1000 ppm. of surface
condensation, and is treated with 50-1000 ppm.
cculating agent while maintaining the pH of the water
5-8.5. The resulting flocs are then removed and 50-
pm. of activated carbon added to the water and the
agitated for a time effective to absorb the condens-
to the activated carbon. The activated carbon is then
ed from the waste water.
e combination of both activated carbon treatment
locculation treatment provides an unexpected syner-
improvement in the amt. of surface active agent
ved. 19.8.76 as 034572 (4pp931)

D15 06116Y/04 =GB 1550-140
y metals pptn. from waste solns or gases - by contacting with
uminium foil and adding an activating agent in the form of a
lex NL110176)
SZLO M 07.07.75-SW-007743
*1 M25 (08.08.79) *DT2630-631 C22b-05*
oval of heavy metal(s) from a fluid is described. A
l foil is brought into contact with a soln. of an activa-
omprising a complex of the same metal as that which
s the foil, so that a portion of the foil surface is in
act with the soln. and another portion is in contact w
into contact with the

foil. The heavy metal(s) ppte. on the foil and are isolated in known manner.

Pref. the metal foil is of Al and the activator comprises an NaAl complex, esp. $Na_3[Al(OH)_6]$. The process is useful for recovering heavy metals from industrial waste pickling and leaching solns., etc. 6.7.76 as 027957 (4pp924)

CIBA D15 00045A/01 =GB 1550-2
Cellulose based adsorbent for heavy metal ions - contains chelatin
amino acid gp. attached to cellulose fraction
CIBA GEIGY AG 24.06.76-CH-008087
*A97 J01 +P42 P73 (A11) (08.08.79) *BE-856-010 C02b-05/0*
C07c-103/46 C08b-11/12

Cellulose adsorption material contains ≥1 chelate-formin amino acid gp. bonded through a gp. of formula $-O-CH_2-$ $-O-CH_2-N-CO-$ to the cellulose portion. The CO is linked to the chelate forming gp., the O to the cellulose portion and the N to a monovalent gp. The chelate forming gp. may be a glycine, sarcosine, iminodiacetic acid, methyl-amino-propionic acid, ethanolaminoacetic acid, vinyl-benzyliminodiacetic acid or ethylenediamine-N, N-dipropionic acid gp.

The material is made by e.g. treating cellulose mater al in acid medium with a cpd. contg. N-methylolcarboxamide and chelate-forming amino acid gps., then curing the prod. Used for treatment of effluents to remove heav metal ions. The concn. of these can be reduced to negligible amts. e.g. 2.5 ppm. of even 0.1 ppm. 23.6.77 as 026440 (10pp945)

BRTO ★ D15 58551B/32 ★GB 2013-09
Dissolving sparingly soluble gas in liq. via siphon device - a
constriction to produce turbulent flow and form gas bubbles
BOC LTD 21.11.78-GB-045399 (12.09.77-GB-037979)
J02 (08.08.79) B01f-03/04 B01f-05

Appts. comprises a main vessel for contg. the liq., a reservoir, and a siphon for transferring liq. from the reservoir to the main vessel. A gas extn. pump is operable to avoid gas-locking the flow of liq. from the reservoir to the vessel. The gas is introduced into the liq. flow via a conduit connected to a leg of the siphon. A lift pump is provided for transferring liq. from the vessel to the reservoir.

Used for dissolving oxygen or oxygen-enriched air in water, e.g. sewage water. The gas supply conduit terminates in a constricted region of the siphon leg which creates turbulent flow. The region is provided upstream o a pair of chambers which are adapted to reduce the velocity of the liq. and provide a prolonged residence time for bubbles of gas in the liquid. The turbulence breaks the oxygen into relatively small bubbles. 21.11.78 as 045399 (5pp1044)

CADB ★ D15 58552B/32 ★GB 2013-096
Control valve for water carbonating appts. - to exhaust carbon
di:oxide and prevent backflow to supply water, has fail/safe action
SCHWEPPES LTD 17.01.79-GB-001751 (22.10.77-GB-044051)
(08.08.79) B01f-03/04

Appts. comprises a pump arranged to supply water to a carbonating vessel through a valve having two operationa positions. One of the positions permits flow of water to the vessel and the other position permits exhausting of CO_2 from the vessel to the valve. When the pressure at the pump output deviates from an operating pressure by a pre-set amt. a sensor causes changing of the valve from one position to the other.

Used in post-mix beverage dispensing system. The valve is changed to the second position in response to failure of the electrical supply, low pressure in the liq. flow line and the level of water in the carbonating vessel. Venting of the backflowing CO_2 prevents the CO_2 from coming into contact with the supply water. 17.1.79 as 001751 (7pp1044)

FOSP- ★ D15 58561B/32 ★GB 2013-168
Inhibiting corrosion of non-ferrous metal in water system - by
adding ferrous sulphate and organic polymer to the water
FOSPUR LTD 07.12.78-GB-047531 (28.01.78-GB-003530)
A97 E31 M14 (08.08.79) C23f-11/18

Corrosion is inhibited by adding to the water a soln. of a mixt. of ferrous sulphate and an organic polymer in sufficient quantity to deposit an even layer of ferric hydroxide on the non-ferrous metal.

A mixt. comprising ferrous sulphate, an organic polymer, and a reducing agent for ferric ions or a chelating agent for ferric or ferrous ions is also claimed.

The mixt. comprises 60-99% $FeSO_4$ and 1-40% organic polymer, e.g. a cellulose ther, substd. cellulose ether, natural starch or gum, polysaccharide or substd. polysaccharide. The mixt. may contain a flow assisting agent, e.g. calcium or magnesium silicate, pptd. silica or a mixt. of $CaCO_3$ and calcium stearate. The mixt. is added to the water at 0.2-25 parts per million by wt.

Used for cooling systems, e.g. of a steam generating plant, partic. non-ferrous metal condensers. 7.12.78 as 047531 (3pp1302)

AQUE- ★ D15 58639B/32 ★J5 4079-949

Sterilising water e.g. for swimming pool - by passing through filtering appts. contg. mixt. of diatomaceous earth and silver cpd.

AQUEONIX INC 01.12.77-JA-143338

Q46 (26.06.79) C02b-03/10 E04h-03/20

Water prior to feeding to a swimming pool is passed through a filtering appts. contg. a mixt. of diatomaceous earth and Ag cpd. generating Ag ions.

Filtering material is produced by coating the pulverised diatomaceous earth or river sand with the Ag cpd. at 600-800°C. 1.12.77 as 143338 (3pp15)

OSHI- ★ D15 58640B/32 ★J5 4079-950

Construction filling material mfr. - from waste cake generated in a cleaning bed, by mixing with soil, calcium chloride, blast furnace slag etc., and curing

OSHIO SANGYO KK 08.12.77-JA-146592

(26.06.79) C02c-03

The filling material is produced by adding 3-7, pref. 5 wt. parts of a remaining soil to 10 wt. parts of the waste cake; thoroughly mixing the mixt. in a mixer capable of carrying-out simultaneous revolution and rotation; adding 0.5-1 wt. part of a treating agent prepd. by adding 3-10 wt.%, pref. 5 wt.% of $CaCl_2$ to a blast furnace cement, based on 10 wt. parts of the mixt.; and subsequently curing the mixt. for $\geqslant$ 24 hrs.

In an example, 0.5 m^3 of the wasted cake and 0.5 m^3 of the remaining soil (Kanto loam) are mixed together for 5 mins. in a mixer capable of carrying-out simultaneously rotation and revolution, after which 100 kgs. of the treating agent comprising 95 kgs. of blast furnace slag and 5 kgs. of $CaCl_2$ is added thereto, followed by mixing together for about 5 mins. and curing for 3 days to give a filling material. 8.12.77 as 146592 (3pp34)

KIKU/ ★ D15 58641B/32 ★J5 4079-951

Polymer coagulant for treating sludge from cleaning bed - comprises e.g. sodium polyacrylate which is mixed with sludge and the mixt. filtered and dewatered

KIKUCHI K 09.12.77-JA-147182

A97 (26.06.79) B01d-21/ C02c-01/40 C02c-05/02*

A sludge resulted in cleaning bed is treated in low maintenance and installation cost and in simple procedure by mixing it with a polymer coagulant, e.g. Na polyacrylate, followed by subjecting to filtration and dewatering treatments.

In an example, a sludge is transferred from a sludge pond to a thickener via a pump, and further sent to a reaction vessel via a pump. Into the reaction vessel is charged a coagulant, e.g. Na polyacrylate etc. from a polymer coagulant-dissolving vessel via a pump. The sludge and the coagulant are thoroughly agitated together in the reaction vessel by means of a motor and sent to a filter, e.g. a rotary filter or micro-strainer etc. to separate it into a water component which is recirculated to the sludge pond and a cake which is dried by the sun light for about one month to lower its water content to 40-60% and discarded. 9.12.77 as 147182 (2pp34)

HITF ★ D15 58642B/32 ★J5 4

Treatment of heavy metal-contg. sludge from river beds e
adding sodium silicate and thio:alcohol to provide cake suit
use as land filler etc.

HITACHI SHIPBLD ENGG KK 08.12.77-JA-147901

L02 (26.06.79) C02c-03

Harmful heavy metals-contg. Hedoro, i.e. a sludge
ged from the bottom of sea or rivers etc. is treated
obtain a cake suitable for use as land-fill material e
adding Na silicate or its hydrate and thioalcohol to a
its pH to 7-8, so that the heavy metals are substitut
with the hydrogen atom of mercapto radical in the th
ohol. The heavy metals remain in aggregate without
olution even in water.

In an example, 10 cc of a Na silicate soln. (dilute
5 times of water) is added under agitation to 500 cc
doro contg. Hg and Cr etc., dredged from the botto
river, followed by further adding 10 cc of thioalcoho
adjust its pH to 7-8 and allowing to stand for 20 min
as to effect agglomeration. Hg and Cr etc. were not
cted in a supernatant liquor, whilst the agglomerate
dewatered by compression to give a cake which is us
land-fill material. 8.12.77 as 147901 (2pp34)

HITF ★ D15 58643B/32 ★J5 40

Treating heavy metals-contg. Hedoro to produce land-fill ma
by adding sodium aluminate and sodium silicate(hydrate)

HITACHI SHIPBLD ENGG KK 08.12.77-JA-147902

L02 (26.06.79) C02c-03

Harmful heavy metals-contg. Hedoro, i.e. a sludge
ged from the bottom of sea or rivers etc. is treated
tain a cake suitable for use as land-fill material etc.
adding Na aluminate and Na silicate or hydrate there
adjust pH to 7-8, so that the heavy metals and sandy
granules contd. in the Hedoro are included in an aggl
-ate due to binding property. This prevents the disso
of the heavy metals from the agglomerate even in wa

The agglomerate is more strongly hardened and m
easy treatable by further adding a solidifying agent,
cement etc.

In an example, 10 cc of Na aluminate soln. (dilute
times with water) and 10 cc of Na silicate soln. (dilu
times with water) were added to 500 cc Hedoro contg
and Cr etc. to adjust pH to 7-8 followed by allowing t
and for 20 mins. so as to be agglomerated. Heavy m
were not found in supernatant liquor, whilst the agglo
-ate was dewatered by compression to give a cake wh
used as land-fill material. 8.12.77 as 147902 (2pp34)

YAWA ★ D15 58704B/32 ★J5 40

Heavy metal removal from waste aq. solns. or suspension
adding powdered slag from iron melting furnace and
resulting solids

NIPPON STEEL CORP 09.12.77-JA-147989

J01 M25 (26.06.79) C02c-05/02

Method comprises adding to an aq. soln. or a suspen
contg. heavy metals such as, Fe, Pb, or Cd, powder
particulate slag from an iron melting furnace, and se
the resulting solids from it to obtain an aq. soln. con
no heavy metals.

In an example, 50 g of powdered slag from an iron
melting furnace was gradually added to 1 l of an aq.
of pH 4.1 contg. 162 mg/l Fe, 13 mg/l Pb, and 4 mg
stirred for 2 hrs., and filtered. The pH of the filtrat
increased to 6.3 and the concn. of the heavy metals i
filtrate was reduced to 13 mg/l Fe, 1 mg/l Pb, and 0
mg/l Cd. 9.12.77 as 147989 (3pp51)

HITA ★ D15 58706B/32 ★J5 40

Treating organic sludge discharged from pulp plant - by
burning for partial oxidn., anaerobically decomposing solid
filtering

HITACHI KK 09.12.77-JA-147138

F09 (26.06.79) C02c-03 C10b-53 C12d-03

Method comprises wet-burning the sludge at 150-200°
and a pressure of 20-35 kg/cm^2 to cause partial oxidn.
introducing the partially oxidised sludge into an

nponent from the liq.
et-burning of the sludge is achieved using a port-
ethane gas generated from the anaerobic decomp-
e. The solid component discharged from the filter
posed by dry distn. The carbon dust or active ca
nerated in the dry distn. is added to the sludge
entering the filter. 9.12.77 as 147138 (4pp47)

D15 58708B/32 ★J5 4080-279
r removing oil from oily waste liq. - comprises casing
pper and lower outlets, inner casing packed with oil
t and waste inlet
BISHI HEAVY IND KK (BOEI-) 09.12.77-JA-147945
26.06.79) B01d-15 B01d-17/04 C02c-05/02

or removing oil from oily waste liquid, compris-
ter casing having an outlet conduit for the treated
r the bottom end thereof, and an outlet conduit for
ging oil floating on the top of the liq. in the outer
an inner casing packed with oil adsorbing particles
uding perforations in the inverted truncated conical
vall, and a conduit vertically extending into the in-
ng for introducing an oily waste liq. As the liq.
through the packed bed, oily components are caught
acked particles and the oil-free liq. is discharged
the perforations into the bottom of the outer casin-

n the particles are fully loaded with oily componen-
oil separates from the particles in the form of rel
r large droplets which pass through the perforations
e to the top of the liq. in the space between the inn-
outer casings. 9.12.77 as 147945(4pp47)

D15 58719B/32 ★J5 4080-294
of crude saline water from diaphragm electrolysis liquor -
adding calcium hydroxide or calcium oxide and
um cpd. to give improved setting of flocs formed
SODA KK 09.12.77-JA-147255
03 (26.06.79) C01d-03/14 C25b-01/34

urificn. of crude saline water contg. $NaNCO_3$, Na-
and Mg-components etc., esp. a mother liquor
g from the settling-out of $NaHCO_3$ from an electro-
quor obtd. in the electropl ysis of saline water with
the diaphragm electrolysis process, by adding Ca
r CaO to form flocs followed by their sepn., the
ement comprises adding a Mg compd., e.g., $MgCl_2$
O etc. after adding at least part of the Ca compon-

settlability of the flocs is improved to a large ext-
d the Ca- and Mg-components are effectively rem-

amt. of the Ca compd. added is pref. such that the
ratio of $Ca/NaHCO_3$ is 0.55-0.95. The amt. of
. added is such that the molar ratio between NaHC
ne crude saline water and the Mg component after
n. of the Mg cpd. is 5-100. 9.12.77 as 147255
)

D15 58805B/32 ★J5 4080-484
sing ammonia-contg. gas from sewage treatment - by
gas through liq. contg. nitrifying bacteria and microbes
tivated sludge to effect decomposition of ammonia
DTA KK 10.12.77-JA-151090
(27.06.79) A61l-09 C12b-01

ethod comprises blowing the gas through a liq. in
ng tank contg. both nitrifying bacteria and micro-
own in activated sludge method, and effecting the
tion of ammonia gas and the biological oxidn. of
s components in the gas simultaneously.
gas is introduced in the second air-seasoning
n which ammonia is dissolved in water and formed
nmonia is further oxidised biologically by nitrifying
ia such as Nitrozomonas, Nitrobacter, etc. to nit-
oxide and nitrogen dioxide. Ammonia can be direc-
omposed to nitrogen oxide and both N-contg. odoro
bstances and S-contg. odorous substances can be
posed simultaneously. 10.12.77 as 151090 (3pp5)

YAMA- ★ D15 58890B/32 ★J5 4081-170
Appts. for treating cyanide gas and water obtd. in electropolishing - has absorption column for cyanide gas and cyanide cracking tower for aq. cyanide soln. using UV rays
YAMANASHIKEN 12.12.77-JA-149047
E36 J01 M11 (28.06.79) C02c-05/04 C25f-03

An electropolishing means is set on a platter in an electro-polishing and washing chamber. When it is begun to electropolishin a noble metal, a cyanide gas is produced from a warmed electrolyte and is introduced a gas channel into a cyanide adsorbing chamber to adsorb the cyanide in a filter material. A circulating water is supplied from a water tank through a pump, into a shower nozzle, and returned through a hole of a cyanide chamber bottom into the water tank. The purified gas is discharged through a blower to the atmos.

After electropolished, the polished noble metal is washed with water in the electropolishing and washing chamber, so that the cyanide is mixed in the washing water. The water contg. the cyanide is sprayed under pressure from a shower nozzle into a cyanide cracking tower to decompose the cyanide with UV rays so as to produced purified water.

The cyanide gas and water produced in the electropolishing may be easily treated to prevent air and water pollution. 12.12.77 as 149047 (3pp35)

NIRA ★ D15 58903B/32 ★J5 4081-183
Hydrophilic heavy metal adsorbent esp. for mercury - produced by reacting cyanuryl chloride, thio:carbo:hydrazide and an amino-sulphonic acid, and reacting with a poly:isocyanate
UNITIKA KK 12.12.77-JA-149567
A91 J01 M25 (28.06.79) B01d-15 B01j-01/08 C08g-73/04

A heavy metal ion adsorbent which is highly hydrophilic and shows excellent selective adsorption ability to heavy metal ions is produced by mixing polyisocyanate with a reaction prod. obtd. from cyanuryl chloride, thio carbohydrazide (at the molar ratio cyanuryl chloride: thiocarbohydrazide of 1:1-3) and an aminosulphonic acid (or its salt) of formula $H-NR_2-R_1-SO_3M$ (where R_1: aliphatic or aromatic 2-12C divalent organic radical R_2 is H or aliphatic monovalent organic radical of C_1-C_2; M is H, alkali metal, or tert-organic base) in a polar non-proton solvent (the permittivity of $\geqslant 30$) and hardening the resulting mixt.

This adsorbent is esp. useful for adsorbing Hg from industrial waste water, and the running cost for regenerating the resin can be greatly reduced because this is very stable against strong acids. 12.12.77 as 149567(10pp55)

NIRA ★ D15 58904B/32 ★J5 4081-184
Highly selective adsorbent for metal recovery from soln. - is obtd. by forming crosslink in polyethyleneimine by epi:bromohydrin in an aq. soln. in presence of soluble metal salt
UNITIKA KK 12.12.77-JA-149568
A91 J01 M25 (28.06.79) B01d-15 B01j-01/08 C08g-73/08

The adsorbent is produced by forming crosslink in polyethyleneimine (where 10-70% of the H atoms directly linked with N atoms are modified with carboxymethyl gp. and its molecular wt. is $\geqslant 10000$) by epibromhydrin in an aq. soln. in the presence of a soluble metal salt.

The adsorbent is pale yellow after metals are eluted, thus in the case of coloured metal complexes, the elution can be seen. After the elution is over, the adsorbent can be used for adsorbing treatment either as carboxyl type after it is sufficiently washed with water, or as alkali metal salt type after it is treated with an alkali. The adsorbent is used for sepg. specific metals from an aq. soln. contg. several kinds of metal ions. On an example, sepn. of Ca^{2+}, Mg^{2+}, from the sea water, recovering Ag, Al^{3+}, Ni^{2+}, Co^{2+}, Cr^{3+}, etc. from the metal plating waste water, etc. 12.12.77 as 149568(6pp55)

NREN ★ D15 58905B/32 ★J5 4081-185
Regenerating ion exchange resin in a fixed bed - includes downwardly passing regenerant through resin layer and then upwardly passing fresh regenerant through resin
NIHON RENSUI KK 12.12.77-JA-149010
J01 (28.06.79) B01j-01/09

Regeneration reagent is divided into portions and one part the waste liq. is withdrawn from the bottom. The rest of the reagent is led upwardly through the resin layer from the bottom and after it is retained, waste liq. is taken from the bottom.

This process can be applied to any ion-exchange resin but is esp. advantageous for resins which change their volume greatly on regeneration, such as weak basic anion exchange resin. Compared with conventional methods, less regeneration reagent is used and efficiency is improved. 12.12.77 as 149010(5pp55)

MORI/ ★ D15 59033B/32 ★J5 4081-564

Filtering waste water - using a filter cylinder mfd. by partially fusing small particles of polyolefin, and shaping into a cylinder

MORI M 09.12.77-JA-147877
A88 J01 (29.06.79) B01d-39/16

A filter cylinder is fabricated by partially fusing very small particles of polyolefin resin to each other and forming the particles into a cylinder. Polluted water is produced by condensation of waste water. The polluted water is filtered through the filter cylinder under the condition that the pressure difference is not generated between the inner and outer walls of the filter cylinder. In this manner, clean water is obtd.

This filter cylinder has high mechanical strength and excellent resistance to chemicals.

Very small particles of polyethylene, polypropylene or an ethylene-propylene copolymer having a grain size of 10 to 900 µ can be used. The particles are packed into a mould and partially fused to each other at a temp. slightly higher than the m.pt. of the resin to fabricate a filter cylinder. The filter cylinder has a pore dia. of 30-100 µ. 9.12.77 as 147877(4pp86)

ASAH ★ D15 59035B/32 ★J5 4081-663

Water purificn. appts. suitable for domestic use - comprises absorption layers of activated charcoal, ion exchange resin, chelating resin, zeolite etc. and semipermeable membrane

ASAHI CHEMICAL IND KK 13.12.77-JA-149537
(29.06.79) C02b-01/14

The water purifying appts. comprises in succession an absorbing layer composed of activated charcoal, ion-exchange resin, chelating resin and zeolite etc. in which the unwanted substances, e.g. Cl_2, Na^+, K^+, Mg^{2+}, Fe^{2+}, bleaching powder, etc. are removed by absorption, and a semi-permeable members layer having the holes dia. of 1 mµ to 0.5 µ, pref. 2 mµ to 0.45 µ, through which bacteria and polymer cannot pass. The semi-permeable membrane layer may be composed of a bundle of hollow fibres of semi-permeable membrane.

A water purifying appts. suitable for domestic use, removes substances with undesired odour or taste, e.g. very small amt. of organic matters and hard components to give water of high quality and free of bacteria over a long period. Further no proliferation of bacteria takes place in the appts. even in a long period of non-use as the absorbing layer is maintained in a sterilised state. 13.12.77 as 149537 (6pp34)

FUJI- ★ D15 59036B/32 ★J5 4081-664

Treating cyanide-contg. waste water - by formation of metal cyanide complexes which are removed by basic anion exchange resin treatment

FUJI KASUI KOGYO KK 10.12.77-JA-147754
(29.06.79) C02c-05/04

A cyanide-contg. waste water, e.g. resulted in a metal surface treatment etc. is subjected to a treatment by previously treating with NaClO to decompose by oxidn. free cyanide and a metal cyanide complex comparatively easy to oxidise, e.g. of Zn, Cd and Cu etc. followed by pptn. and sepn., and subsequently passing it through an ion exchange tower packed with a macro-porous SO_4^{2-} - or Cl^- -type weakly basic anion exchange resin or with a combination of macro-porous SO_4^{2-} - or Cl^- -type weakly basic and middle basic anion exchange resins, the further being situated at the upper part of the tower and the latter at the under part thereof and the water to be treated being
under resin layer. The regeneration of the upper
der ion exchange resin layers is carried-out by pa
upwardly an alkali liquor through the tower in such
nner that the middle basic anion exchange resin is
lly effectively regenerated with an excess amt. of
ali, and subsequently the weakly basic anion excha
sin is completely regenerated. 10.12.77 as 14775

SEKI/ ★ D15 59037B/32 ★J5

Treatment of polluted water, sludge and night soil - incluc
of finely powdered coal to rapidly settle out by coagula
impurities

SEKI T 13.12.77-JA-148888
(29.06.79) C02b-01/20 C02c-05/02

In the purificn. of sewage, night soil, domestic wa
waters, industrial waste waters as well as sludge
a large amt. of organic components and inorganic
onents etc. the improvement comprises adding 0.
wt.% of a finely powdered coal contg. $>$80% of a
having a granular size of 9-500 meshes to rapidly
out by coagulation solid impurities existing under
sol. state in the water, opt. followed by aeration.

Process further comprises adding a coagulant c
of forming by hydrolysis $Al(OH)_3$ or $Al(OH)_3$ and Fe
oxide, e.g. Fe sulphate, Al sulphate and red mud
until the pH of the liquor reaches the isoelectric pc
followed by further adding a neutralising agent to n
lise the liquor, and subsequently adding a polymer
ulant to form flocs exhibiting very strong binding p
rty, which is effectively and rapidly pptd. as sludg
sludge being easily dewatered (water content becon
$\leqslant$ 60%). 13.12.77 as 148888 (10pp34)

ASAH ★ D15 59114B/32 ★J5

Ammoniacal nitrogen removal from waste water -
exchanging ammonium ions in the waste water, regenera
hydrochloric acid and oxidn. electrolysing resulting soln.

ASAHI CHEMICAL IND KK 14.12.77-JA-150044
(30.06.79) B01j-01/09 C02c-05/12

Method comprises (a) passing waste water contg. a
nium ions through an ion exchanger to adsorb the a
ium ions; (b) passing HCl through the used ion exch
to dissolve out the ammonium ions and regenerate
exchanger to by-prod. a soln. contg. ammonium io
HCl; (c) oxidn.-electrolysing the soln. with insolub
ctrodes in a cell to decompose it to N_2, H_2, and hyd
ion, and thereby removing ammonium ion from the
water. 14.12.77 as 150044 (4pp51)

OHBA ★ D15 59115B/32 ★J5 4

Oxidn. of waste soil, sludge etc. - to facilitate dewatering

OHBAYASHIGUMI KK 14.12.77-JA-150131
E37 (30.06.79) A01n-07/02 B01j-01 C02c-03

Method comprises adding an oxidising agent to soil,
waste sludge or alluvial clay, to dehydrate it. The
ing agent is permanganic acid or its salts (HM_nO_4,
M^IMnO_4), chromic acid or its salts (CrO_3), nitric a
its salts, sulphuric acid or its salts, halogen e.g.
oxygen, ozone, or air.

Typically oxidising agent is added to waste sludg
contg. water (1) and soil particles (2). FeS or Fe(O
the waste sludge is thus oxidised to $Fe(OH)_3$ or Fe_2
$3H_2O$. The resulting oxidised layer consisting of Fe
or $Fe_2O_3 \cdot 3H_2O$ was deposited on the outer surface o
soil particles (2). As a result, the soil particles ar
-ected to generate blocks in the waste sludge. The
ing sludge contg. the blocks is easily dehydrated.
14.12.77 as 150131 (5pp51)

HITF ★ D15 59116B/32 ★J5 4

Treating waste sludge with high water content - by
cementing agent and laying dewatering plates on sludge

HITACHI SHIPBLD ENGG KK 14.12.77-JA-150964
J01 (30.06.79) B01d-43 B01j-01 C02c-03

Cementing agent is added to the sludge, and then it
on the ground. Dewatering plates, each consisting o
water-permeable bag charged with dewatering granu

s abandoned to form a bed. Water oozing from the
s drained out through the granules in the bags.
ess is rapid and leaves a strong ground surface.
7 as 150964(3pp26)

D15 59117B/32 ★J5 4082-370
ing sludge used as land fill - by forming sludge bed contg.
agent, then applying sludge layer contg. large amt. of
agent to dewater the bed by its wt.
CHI SHIPBLD ENGG KK 14.12.77-JA-150965
(30.06.79) B01d-43 B01j-01 C02c-03
od for treating sludge having a high water content
ided. The sludge is to be abandoned on ground to
aimed and must be quickly dewatered and dried up
the cold winter or rainy seasons. In this method
dge laid on the ground is quickly dried up without
sing the amt. of cementing and binding agent used.
binding agent is added to a raw sludge, then it is
the ground sectioned with weirs to form a bed, and
ge layer composed of sludge and a large amt. of bi-
agent is laid on the bed to dewater the bed by the
of the weight of the layer. 14.12.77 as 150965(3pp)

D15 59118B/32 ★J5 4082-371
eclamation using sludge of high water content - involves
caking and cementing agents, applying to land, applying
ing layer and vacuum dewatering
ACHI SHIPBLD ENGG KK 14.12.77-JA-150966
(30.06.79) B01d-43 B01j-01 C02c-03
y up the sludge applied to the ground in a short time,
t increasing the amt. of caking agent and cementing
added to the sludge, the following novel method is
The caking and cementing agents are added to a raw
, then it is laid on the ground to form a sludge bed;
ge hardening layer composed of a larger amt. of
agent is laid on the bed, and a machine is used to
er the bed by vacuum dewatering.
e sludge is quickly dewatered and dried, even in
r rainy seasons. 14.12.77 as 150966(3pp26)

★ D15 59125B/32 ★J5 4082-379
ting tube for semipermeable membrane for use in reverse
s - produced by knitting porous plastic fibre to obtain inner
vinding filament to obtain outer tube and inserting inner tube
ter
ACHI KK 14.12.77-JA-150073
J01 (30.06.79) B01d-13
nethod comprises knitting a porous type plastic fibre
ain a reinforced type inner tube, winding a porous
plastic filament to obtain a reinforced type outer tube,
nserting the inner tube in the outer tube to obtain a
rting tube for a semipermeable membrane. The me-
ne is used in treating waste water or sea water.
an example, a glass fibre was knitted to obtain a tu-
he knitted tube impregnated with an epoxy resin to
n a reinforced type inner tube. A glass filament was
d to obtain a reinforced type outer tube. The inner
was inserted in the outer tube to obtain supporting
14.12.77 as 150073(3pp51)

★ D15 59127B/32 ★J5 4082-382
stic water purifier - comprises semipermeable membrane in a
s pressure-resistant support
KYO SHIBAURA ELEC LTD 14.12.77-JA-149295
(30.06.79) B01d-13 C02b-01/82
ck semipermeable membrane is carried by a porous
sure-resistant support. Water is supplied from a wa-
upply tap through an inlet to the surface of the semi-
eable membrane and discharged through a porous
rial or an outlet. The water is permeated through
emipermeable membrane to be purified and the purifi
vater is flown along the support and discharged from a
t.
ure water of low ion concn. may be easily obtd. by
of the back semipermeable membrane. Rubbers and
nay be removed with the ions from the water.
2.77 as 149295(3pp35)

EBAI D15 96719X/52 =J7 9019-1
Removing silicic acid from water - using ion exchange resin con
metallic ions
EBARA INFILCO KK (EBAR) 31.01.75-JA-013707
*E36 J01 (12.07.79) *J51088-473 B01d-15 C02b-01/24*

SiO_2-contg. water is contacted with an ion-exchange resi adsorbing metallic ion, opt. while adjusting the alkalinit thereof, in a reactor or the like. As packed ion exchange resin, commercially available ion exchange resin of the strong acidic type or weakly acidic type may be used. Th resin is contacted with water contg. the metallic ions.

Any metallic ion which easily caused hydrolysis, such as Al^{+++}, Fe^{+++}, Mg^{++} may be suitable, Metallic ions which cause hydrolysis under somewhat acidic condition neutral condition, such as Al^{+++}, Fe^{+++}, can be used in t neighbourhood of the neutral point, therefore, almost neutral treated water may be obtd. when such ions are adopted as the adsorbing ion to the resin. SiO_2 ion in wate can be removed very easily with high rate of removal. 31.1.75 as 013707 C02b-1/24, B01d-15/00 (12.7.79) EBARA INFILCO KK (2pp) (J5 1088473)

UNIC D15 27291W/16 =J7 9019-11
Removing hydrogen sulphide from waste fluid - esp. the gaseou
and liquid phases of sewage
UNION CARBIDE CORP 26.04.74-US-464437
*(12.07.79) *US3876-535 C02c-01/06*

A method for removing H_2S from gas and liq. phases of a BOD-contg. waste fluid comprises (a) sepg. the H_2S-cont waste fluid into water and gas, (b) contacting the gas with H_2S-low water in a liq./gas flow ratio of $\geqslant$545 lb. moles liq./lb. mole gas, absorbing the H_2S in the water and discharging the H_2S-depleted waste gas, (c) mixing the waste water from (a) and the H_2S-contg. water from (b) with activated sludge and $\geqslant$50 vol. % oxygen gas in sufficient amt. to provide a dissolved oxygen concn. of $\geqslant$2ppm in an enclosed aeration zone and simultaneously recirculating one fluid against the other for sufficient time to chemically remove the H_2S by oxidn. and biochemically oxidise the BOD to form an oxygenated liquor, (d) sepg. the oxygenated liquor into activated sludge and purified water, and (e) recycling part of the activated sludge to the enclosed aeration zone in (c).

The process requires no chemical additives or adsorptive media. 25.4.75 as 049840 (clg. 26.4.74-US-464437) C02c-1/06 (12.7.79) UNION CARBIDE CORP (11pp) (J5 0149142)

MITO D15 26380A/14 =J7 9019-22
Wet process treatment of waste gas - without the prodn. of aq
effluent
MITSUBISHI HEAVY IND KK 10.08.76-JA-094495
*J01 (13.07.79) *J53019-970 B01d-53/34 C02c-05*

Waste gas is treated in a wet process by contacting for concn. a waste gas with a soln. contg. impurities discharged from the treatment system, while maintaining pH of soln. at 1-4, and heating for drying the concentrated soln. to draw out the impurities in a form of solid, to thereby effect the treatment with no waste liq. produced.

Waste effluent from absorption and post treatment steps is recycled in a concn. tower to contact waste gas while supplying it with alkali soln. like lime slurry to maintain it at pH 1-4, to prevent evapn. of Cl^- out of the recycling waste effluent and to suppress absorption of SO_x in waste gas. The waste gas from the concn. tower was introduced to absorbing tower via cooling tower, while the recycling soln. partly is supplied to evapn. and drying process to recover salts and dusts in solid form and to recycle the distilled liq.

The process treats waste gas without addn. of equipment for treatment of waste water with high COD usually by-produced in wet processes of waste gas treatment. 10.8.76 as 094495 B01d-53/34; C02c-5/00 (13.7.79) MITSUBISHI HEAVY IND KK (10pp) (J5 3019970)

MITU D15 49284Y/28 =J7 9019-227
Water purification - by treatment with mixed exchange resin bed, desalination column, filter, ultra-violet radiaton and a second mixed exchange resin bed
MITSUBISHI CHEM IND KK 26.11.75-JA-141265
*A91 (13.07.79) *J52065-181 C02b-01/70 +C02b-03/02*

Pure water is prepd. by first desalting the unpurified water through the mixed bed type exchange resin, opt. followed by precise filtration to remove the salts, minute amt of electrolytes, and non-electrolytic suspended materials. The treated water is then irradiated with ultraviolet rays, and allowed to pass through a mixed bed consisting of strongly acidic cation exchange resin and strongly basic anion exchange resin.

In an example, town water contg. 100 ppm. NaCl was purified to give water with a specific resistance of 18.1 Mol-cm. This high purity water is suitable for use in the electronics industry, e.g. for mfr. of transistors or semi-conductors. 26.11.75 as 141265 C02b-1/70,3/02 (13.7.79) MITSUBISHI CHEM IND KK (4pp126) (J5 2065181)

KOKU- ★ D15 59206B/32 ★J7 9019-389
Device for converting sea water used for cooling into plain water - comprises a heat exchanger and a boiler
KOKUSAI DUNKO KK 29.05.72-JA-053158
(14.07.79) B01d-03 C02b-01/04

Device for converting into a plain water the sea water used for cooling the engine of a ship comprises a heat exchanger for cooling the sea water to be fed into a cooler and a boiler for heating the hot sea water fed from the engine. 29.5.72 as 053158 C02b-1/04; B01d-3/00 (14.7.79) KOKUSAI DUNKO KK (3pp26) (J4 9010169)

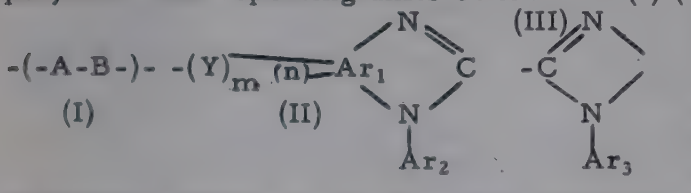
OSMO- D15 56768T/36 #J7 9019-393
Reverse osmosis water purifier - with orifice plates regulating recycled and discharged flows
OSMONICS INC (OSM -) 01.02.71-US-111189 (01.02.72-JA-011045)
*J01 (14.07.79) *DT2203-950 B01d-13*

TEIJ D15 12398U/09 =J7 9019-395
Permselective membrane - for water purification consisting of linear polymer contg n-aryl-benzimidazole units
TEIJIN KK 08.02.72-JA-013801
*A91 J01 (A26) (14.07.79) *BE-788-751 B01d-13/04*

Permselective polymer membrane consists of a linear polymer with repeating units of formula (I) (where A is a gp. of formula (II) m and n are each 0 or 1 the two N atoms are bonded to two adjacent C atoms of Ar_1, Ar_2 is an aromatic gp. with up to 15C atoms; when (n) is 0. Ar_1 is a trivalent aromatic gp. having up to 15C atoms, Y is CONH, CONHNHCO, NHCONH, or NHCONHNHCO, and when Y is CONH or NHCONHNHCO Ar_1 can be bonded to one or the other of the N atoms and C atoms of Y; when n is 1, Ar_1 is a tetravalent aromatic gp. having up to 15C atoms and Y is a gp. of formula (III) in which the two N atoms are bonded to two adjacent C atoms of Ar_1 and Ar_3 is an aromatic gp. with up to 15C atoms, B is a direct bond or a divalent organic gp. in which the av. number of atoms, excluding H atoms, is $\not>$80 and the terminal atoms are C atoms). The polymer has a hydrophilic parameter (Hp) of $\geqslant$0.4 and defined by the following equation:

$$Hp = \frac{N_H + ION_I}{\text{total no. of atoms, excluding H atoms, in the polymer}}$$

(N_H is the no. of hydrogen bond units provided by the polar gps. in the entire polymer and is expressed by the product of the hydrogen bonds in the entire polymer (N_n) and their hydrogen bonding force (G_v); and N_I is the number of ionic gps. in the entire polymer the number of ionic gps. not exceeding 1 per 500 of the mol. wt. of the polymer).



Used in reverse osmosis for the purification of water e.g. sea water or waste water. The membrane allows the

(J4 8096457)

WESE D15 69845S/44 =J7 9
Supported tubular semipermeable membranesfor
WESTINGHOUSE ELEC CORP 15.04.70-US-028605 (15.04
028603)
*A88 J01 (A11 A28 D13) (14.07.79) *NL7105-038 B01d-13*

A tubular membrane for reverse osmosis, held in a
opening, is produced by introducing a casting soln.
ting of a film-forming cellulose ether or ester, an o
solvent and a swelling agent which can be lixiviated,
the tubular opening; a casting bob with a hydraulicall
stable form is displaced down the vertical tubular op
so as to form a film of the casting soln. on the inner
of the opening. This film is then exposed to air and b
into contact with a lixiviating liq., to form a membra
use in reversed osmosis.

The osmotic membranes may be used for purifyin
potable water or waste liquids, improving the taste o
able but unacceptable water, softening tap water, ste
sing water, and concentrating foods such as orange a
tomato juice, whey cheese and syrups. 15.4.71 as 02
(clg. 15.4.70(2)-US-028603,028605) B01d-13/04 (14.7
WESTINGHOUSE ELECTRIC CORP (8pp) (J4 6004960

NIMA- D15 32878X/18 =J7 90
Heavy metal ions removed from factory or mine waste water - slag as filter aid
NIPPON MAG ORE SEP 12.09.74-JA-106529
*L02 (18.07.79) *J51031-724 B01j-01 C04b-31/10 +C02c-0*

Ions of heavy metals e.g., Cu, Cd, Pb, Zn, Fe, Cr cont
the waste water discharged fromfactories or mines,
hydrolysed by Ca ion or Na ion dissolved out of the s
and are removed after pptg. as hydroxides. The slag
also used as the filter aid. When the slag is mixed wi
cement, the mixt. does not harden quickly, enabling
smooth hardening of cement.

The slag described is superior as filter aid enabli
easy filtration, since the particles constituting the sla
are very coarse. Further the quick hardening of ceme
prevented when the slag is mixed, and the strength of
hardened cement may be improved. 12.9.74 as 106529
C02c-5/02, B01j-1/00; C04b-31/10 (18.7.79) NIPPON
MAG ORE SEP (3pp) (J5 1031724)

ASAH D15 40415Y/23 =J7 901
Removal of chromium ions from waste waters with activated c - including maintaining the mixt. as a slurry while heatin increased adsorption
ASAHI CHEMICAL IND KK 29.01.74-JA-011436
*E31 (18.07.79) *J50105-543 +B01d-15 C02c-05/02*

In an example, 200ml aq. K_2CrO_7 soln. contg. 534 pp
ions was mixed with 5g powdery coconut shell charcoa
(100-200 mesh 15, 200-325 mesh 15, and -325 mesh 7
heated in an autoclave at 200° for 30 mins. and filtere
The filtrate contained 0.01 ppm Cr ions. 29.1.74 as
105543 B01d-15/00, C02c-5/02 (18.7.79) ASAHI CHEM
IND KK (3pp) (J5 0105543)

EBAI ★ D15 59252B/32 ★J7 901
Desalination of water by reverse osmosis - following pas through electrostatic field
EBARA-INFILEO CO LTD 04.03.74-JA-024940
J01 (18.07.79) B01d-13 C02b-01/82

Water contg. salts, microorganisms, suspended solid
and colloids is passed through an electrostatic field an
treated by reverse osmosis.

In an example, water contg. Ca^{2+} 35-90, alkali 60-
Cl^- 210-335, SO_4^{2-} 26-33, SiO_2 9-15, total Fe 0.2-0.4,
total hardness 110-160 ppm (as $CaCO_3$) and having tur-
bidity 5-12 was passed through an electrostatic field at
3000V for 6 secs. and treated in a reverse osmosis app
28 kg/cm². The water treated contained Ca^{2+} 1-2, alkal
11-23, Cl^- 20-37, SO_4^{2} 2-3, SiO_2 0.8-1.5, total Fe <0
and total hardness 2-4ppm (as $CaCO_3$) and had turbudity
0.01. After 800 hrs. operation, the water-treating cap
of the reverse osmosis app. decreased by 9% compare

D15 B/32 ★NO 7704-424
-solubility gas to treat liquids
TD 22.12.77-NO-004424
07.79) C02c

D15 B/32 ★PT --68-958
ion of liquids and solids before filtration - by two-stage
flocculating agent with stirring
OC TECH CHIMI 22.12.77-FR-039909
*(24.07.79) C02c-00/**

★ D15 59391B/32 ★SU -629-950
rifying micro-filter - as part of a rotating drum filter, has
th governor made up of drive rods, making contact with
arm
H POLY 01.12.76-SU-424878
(30.11.78) B01d-33/02 C02c-01/18
lter for cleaning water free of mechanical impurit-
plankton, as part of a rotating drum filter, is sim-
that of Parent Certificate No. 201329 which com-
a drum with detachable filter elements, device to
and withdraw the wash water, and a pipe to supply
ginal water, forming the supporting shaft of the

the consumption of wash water is cut down and the
g effectiveness is increased by providing the filter
wash-water-level controller. This consists of a
fitted with a cross-shaped governor and mounted on
sh-water feed pipeline. A drive rod is fastened to
wall of the drum.
kov, V.D., Serpokrylov, N.S., Semenov, V.I. et al
/30.10.78. 1.12.76 as 424878 Add to 201329

★ D15 59469B/32 ★SU -630-225
l of impurities from aq. sodium sulphate contg. waste - by
e autoclaving and filtration of resulting oxide(s), useful in
c fatty acid mfr.
GA DON SYNTH FAT 17.07.74-SU-045056
.09.78) C01d-05/16 C02c-05
c and metal impurities present in the waste waters
Na_2SO_4 (I), from fatty acid synthesis, is purified by
in presence of oxygen.
impurities can be removed more efficiently and
by autoclaving partly neutralised soln. at 170-
under oxidising conditions, and filtering the result-
des.
vich, L.M., Smirnov, V.A., Kramarenko, S.S.
Bul. 40/30.10.78. 17.7.74 as 045056 (2pp124)

★ D15 59472B/32 ★SU -630-228
ing non-ferrous metal from aq. soln. - by treating with
r-contg. cpd. in alkaline medium at elevated temp.
JT POLY 27.02.76-SU-329054
(19.09.78) C02c-05/02
er, more effective removal of non-ferrous metals
aq. solns. is based on treating with 10-400 g/l. sul-
soln. in alkali at 60-70°C.
pically, aq. ammonium molybdate soln. contg. 1.6
u and 0.3 g/l Ni is treated 10 mins. at 70°C. with
/l. alkaline S soln. to give 0.01 mg/l. Ni and 0.001
Cu contents.
gova, L.A., Klets, V.E., Mikhnev, A.D. et al.
40/30.10.78. 27.2.76 as 329054 (2pp114)

= ★ D15 59573B/32 ★SU -630-336
ial effluent skimmer - has frame on floats and horizontal net
oughs contg. liquor absorbing elements
ASNYI BOR POLYGON 10.09.75-SU-175197
2 (21.09.78) E02b-15/04
kimmer for collecting scum from industrial effluents
loats mounted, horizontal net and a inclined nets
contain liquid absorbing material, in order to in-
e evaporation rate of the effluent.
us, a net is stretched between the floats and acts as
ch for the nets located in the trough. The bars are
to lift the skimmer, using a crane, and also are used
etch the net. An absorbing material is laid in the
The absorbing material is placed in the nets, draws in the liquor and allows it to evaporate quickly. The number of troughs can be increased to accelerate the absorbtion rate. Used elements are replaced.

Zaitsev, V.T., Titov, A.P. Bul. 40/30.10.78. 19.9.75 as 175197 (2pp121)

NONF= ★ D15 59620B/32 ★SU -630-550
Drain water sampling in proportion to flow volume - using compartmented paddle wheel scoops spread in depth below surface
NONFER METAL ORES 13.04.76-SU-347841
J04 R16 (25.09.78) G01n-01/10

The proposed appts. is suitable for sampling running waste water in open drains or channels, and to deliver a sample in unit time proportional to the flow, i.e. depth or height of water level.

The sampler takes the form of a paddle wheel on a fixed hollow shaft, the wheel carrying a number of scoops designed to deliver into a hollow tube forming the wheel rim and then into hollow spokes leading to the hub. The feature of the scoops is their division into radially tiered compartments all delivering the trapped water into the receiving tube. Each compartment strikes the water at a different level, hence the amount of water taken up depends on the height of the surface.

Ozerov, A.I., Kratsberg, E.P., Kukuev, A.N. et al. Bul. 40/30.10.78. 13.4.76 as 347841 (2pp140)

UNVO ★ D15 59645B/32 ★US 4161-825
Plasticised compsn. comprising dried sewage sludge - useful as inexpensive alternative to petroleum derived plastics
UOP INC 08.12.77-US-858879 (08.03.77-US-775673)
C04 Q76 (24.07.79) F26b-07

A plasticised compsn. comprises sewage sludge dried to $<$15wt.% water and plasticised at $>$100°C and $>$ 300 psig. Pref. the sludge is dried to $<$ 12wt.% water and plasticised at $>$ 110°C esp. 110-170°C, and $>$ 500 psig. Pref. the sewage sludge is extruded. The sludge may also contain 1-20wt.% fibrous reinforcing material. The Parent Patent describes the appts.

Wet or partially dried sludge is used as a soil builder, or it may be converted into a fertiliser by drying and pelletisation. The plasticised sludge compsn. may be used as an inexpensive alternative to petroleum derived thermosetting plastics. It has a wide range of uses e.g. golf tees and containers to building materials such as paneling and insulation. 8.12.77 as 858879 C.i.p. 4099336, 4098006 (+7.7.77 (2) - US - 813577-8) (4pp954).

KOPS D15 91614A/51 =US 4162-147
Sewage aeration towers - with spiral descending decks aerated through air or inert gas nozzles
KRUPP-KOPPERS GMBH 10.06.77-DT-726233
*(24.07.79) *DT2726-233 +B01d-19*

Removal of harmful substances from effluent using an apparatus having a treatment chamber with an upper gas outlet. At least two superposed trays are provided in the chamber and the effulent delivered to the upper tray descends along a spiral path.

The flow channels on the trays are provided with gas nozzles which are used to deliver gas through the effluent stream to entrain harmful substances from the effluent. The appts. is compact and gives efficient treatment combined with low energy requirements. 5.6.78 as 912522 (6pp397).

KALL- D15 57221W/35 =US 4162-195
Biological test appts. - for determining presence of poisons for activated sludge organisms in aqs. effluents
KALLE-REGULATORER A 04.04.74-SW-004556
*R16 (24.07.79) *BE-827-546 G01n-33/18*

Biological testing device for measuring the toxicity of a sewage sample comprises an enclosure completely filled with sample material in which parallel interfaces rotate relative to each other. The rotating surfaces are coated with a film of microorganisms and the spacing is selected to ensure that the resulting biological mass is constantly abraded to expose fresh surfaces. The oxygen content of the soln. is constantly monitored to determine the biological oxygen demand of the sewage sample.

The stacked arrangement of the microorganism support plates allows a relatively large area of substrate to be provided and for the reaction speed between the oxygen and the sewage to be increased thus allowing the test results to be obtained more quickly. It is esp. suitable for detecting the presence of toxic material when the biological activity will be reduced or stopped. 28.10.77 as 846454 (+2.4.75 - US - 564552) (10pp397).

UNIC ★ D15 59716B/32 ★US 4162-216
Filtration removal of suspended solids from liquid - using particulate polyurethane filter bed regenerated by agitating with liquid to remove deposited solids
UNION CARBIDE CORP 25.10.77-US-845300
A88 J01 (A25) (24.07.79) B01d-23/24

In the removal of suspended solids from a liquid by (a) flowing the liquid through a filter bed of discontinuous polyurethane particles in a filtration vessel and discharging solids depleted liquid from the vessel, the filter bed being at least partially loaded with deposited solids, (b) terminating the liquid flow and (c) renewing the filter bed by removing the deposited solids, the improvement comprises that the regeneration step (c) is carried out by adding ⩾ 1 bed volume of regeneration liquid (I) to the vessel and mechanically mixing the filter bed in (I) and hold-up liquid resulting from termination of liq. flow to disengage the deposited solids from the polyurethane particles. Solids-enriched liquid is then discharged from the filtration vessel.

Only a very low volume of (I) is required. Liqu treated may be effluent contg. 40-60 ppm suspende river water, water for use in boilers, or a stream an algae pond (oxidation ditch). 25.10.77 as 84530

MCCO/ ★ D15 59717B/32 ★US
Water reuse system - in which the level of water in a gr tank is controlled by a sensing device
MCCORMICK G L 27.06.77-US-810039
(24.07.79) C02b-03/08 C02c-01/40

In a water reuse system of the type in which gray w fed to a gray water tank for ultimate reuse in applia such as lavatories or garden sprinklers, the level o water in the tank is monitored and when it reaches tain point, the inlet to the tank is closed and feed va direct any more gray water direct to the sewage sy

When the level falls the valves are actuated to di gray water once again to the tank. Pref. the valves actuated by air maintained under pressure by a pum which pumps water from the tank for reuse.

There is no possibility of the gray tank overflowi 27.6.77 as 810039 (8pp525).

See Also

D16 GB 1549959

D16: FERMENTATION INDUSTRY

UYLI- ★ D16 58036B/32 ★BE -875-073
Non-lethal dNA virus derivs. - produced by eliminating lethal genes not essential for integration
UNIV LIBRE BRUXELLE 23.03.79-BE-875073
B04 (16.07.79) C12k

New DNA virus derivs. and their prodn. and use are claimed. The virus derivs ('mini-viruses') include the integration sites and functions of the parent virus from which they are derived, so that they are still capable of integrating at any site in the genom of their host, but lack the lethal genes not essential for integration.

The derivs. are produced by (a) eliminating from the genom of a DNA virus a part of a transposable element capable of entraining with it at least a fragment of the viral DNA adjacent to it, the transposable element being localised in the viral genom at a site such that, when it is eliminated, all of the nonessential lethal genes are entrained simultaneously, (b) isolating strains of the host in which the part of the transposable element has been eliminated from the virus, and (c) identifying and isolating the strains in which the virus deriv. contains only those genes essential for integration.

The virus derivs. can be used to induce mutations and chromosomal rearrangements with a high frequency without being lethal to the host. 23.3.79 as 875073 (26pp367)

FREN/ ★ D16 58103B/32 ★DL -135-625
Vinegar prodn. plant - with open air site for all plastic tanks and covered building for pumps and controls
FRENZEL R 11.01.78-DL-203180
(16.05.79) C12j-01/10

A plant for the prodn. of vinegar from alcohol mash by a submersion process uses containers, made of acidproof and food-compatible plastics, for the fermenter, the denatured fluid, the mash, the crude vinegar and for the clearing and blending operations. These are erected in the open air and merely the pumps and controls are arranged inside a covered housing protected against freezing.

This results in a reduction of the capital cost for build-

as 203180 (9pp39)

LAND- ★ D16 58124B/32 ★DL -
Surplus bio-sludge conversion to agricultural fertiliser composting with aggregates e.g. bark or peat in peaked or h stacks
AKA LANDWIRTSCHAFT 07.04.78-DL-204653
(23.05.79) C05f-03

Surplus- or bio-sludge from liq. manure processing composted by mixing with aggregates and turning ove mixing through several times during the 4 months' c osting period. The aggregates may be wet peel bark coarse pine- and spruce bark or peat.

Composting allows the nutrient materials in bio-s waste to be made full use of in agriculture. 7.4.78 as 204653 (5pp200)

WORC/ ★ D16 58170B/32 ★DL -
Sparkling wine manufacture - in pressureless fermente separate maturing tanks with killed yeast to save time
WORCH J 19.04.78-DL-204885
(30.05.79) C12g-01/06

Sparkling wine (champagne) is produced by a discont tank fermentation process by fermenting the wine a time in non-pressureised fermentation tanks. The d ited yeast is extracted, killed in a dissolution tank by 65% sugar soln., and the resulting yeast liquor is cha in maturing pressure tanks, together with the wine a from the fermenting tank, where the final maturing t place.

The process yields a high-quality sparkling wine. capital cost for the necessary equipment is low and t time required for the complete process is greatly re 19.4.78 as 204885 (9pp39)

BENC D16 32873R/19 #DS 18
Fermentation of aldose to esp gluconic acid
BENCKISER J A GMBH (PAB -) 04.11.68-NL-015680 (26.10.
805502)

ation in a fermentation medium contg. nutrient
ls and microorganisms capable of converting glu-
gluconic acid, only a part of the glucose is added
to the fermentation medium. At least a proporti-
is glucose part is fermented with the addn. of a
t pH 5-7 and further glucose is added to the med-
l fermented, pref. at pH <5. Total quantity of
lucose, including initial quantity, is pref. 50-75%
entation medium.

. solns. can be obtd. Base consumption is red-
d the solns. can have lower viscosities. 26.10.68
07 Div. ex 1805502 (7pp200)

D16 00280S/01 =DS 2024-251
ytic enzyme separation from mould - fungus cultures
RZNEIMITTEL DRESDEN (TOP /) 09.06.69-DL-140363
*(02.08.79) *DL--77-175 C07g-07/02*

nolytic enzyme (I) is isolated from a crude enzyme
rom Aspergillus ochraceus by extracting it with
uffer, filtering the extract over DEAE-Sephadex
or DEAE-cellulose. Addn. of water-miscible sol-
ives a ppte. which is dissolved in water and sub-
to gelchromatography over Sepahdex G-75 or -G-
TM) and (I)-contg. proteins are freeze-dried.
s a fibrinolytic protease in very pure form and may
d against venous thrombosis, arterial emboly and
c arterial blocking diseases, leading to complete-or
recanalisation of bloodvessels. (I) has no anti-
ty, has no toxic side-effects and may also be used
eptokinase-resistent cases. (I) is very pure and act-
eding only simple technical process aids.
e crude enzyme mixture is extracted with Tris-HCl-
or ammoniumacetate at pref. pH 7.0-7.2. The fil-
is extracted with ethanol at -20 °C with a ratio of
19.5.70 as 024251 (4pp279)

D16 21864S/12 =DS 2047-317
agulant protease (am) obtained from - armillaria mellea

ERIAL CHEM INDS LTD 07.05.70-GB-022129 (26.09.69-GB-
554)
*B04 (A11) (02.08.79) *BE-756-369 C07g-07/02 +A61k-
54*

tidyl-peptide hydrolase, called AM-protease (I) is
by (A) milling ripe fruit bodies of the protease-
cing fungus Armillaria mellea and extn. of this mat-
with water. Unwanted proteins are removed using
organic water-miscible solvent at suitable pH, temp.
on-concn. The crude (I) is then pptd. using an org-
eater-miscible solvent and is purified chromatogra-
lly and with molecular sieve techniques. (I) is also
d. by (b) culturing AM-protease-producing A. mellea
mediuma at 25 °C and obtaining (I) from the mycelium.
has fibrinogenolytic and fibinolytic activity and may
ed in pharmaceutical compsns. in the treatment of
rial thrombosis, arterial emboli esp. in leg arteries
n the aorta at the bifurcation, in deeper vein throm-
s and pulmonary emboly. 25.9.70 as 047317 (7pp279)

N D16 31257T/20 =DS 2154-031
olytic enzyme 25048 rp - prepn by streptomyces nebulosus
bic culture and use in bread and detergents
HONE-POULENC S A 30.10.70-FR-039202
*11 D25) (02.08.79) *DT2154-031 C07g-07/02*

proteolytic enzyme, labelled no. 25 048 RP, (I),
protein material. (I) is highly soluble in water,
ly soluble in conc. solns. of neutral salts and in aq.
holic or aq. acetone mixts. and insoluble in anhydrous
hols and ketones. On casein at pH 8, (I) has max.
vity at 37-65 °C and is inactivated in 6 min. at 75 °C.
ydrolyses more peptide bonds of casein than trypsine
has only a low esterolytic activity on the Et esters of
oyl arginine and acetyl tyrosine.
) is prepd. by the aerobic cultivation of Streptomyces
losus DS14579 (NRRL 3864) in a medium contg. ass-
atable C- and N-sources. Enzymatically active
psns. pref. contain 0.005-99 (1-10) wt.% (I) together
diluents, esp. >1 carbohydrate or mineral salt.
) can be used in detergent mixts. and in food industry,

(10pp200)

BOEF D16 74817T/47 =DS 2167-12
Growth of microorganisms - contg creatinine - amidohydrolase an
greatinine-amidinohydrolase
BOEHRINGER MANNHEIM GMBH 05.05.71-DT-122294 (05.05.7
DT-167120)
*B04 (02.08.79) *NL7205-996 C12d-13/10*

Soluble creatin-amidinohydrolase is obtd. by culturing Alcaligenes spec. WS51400 (DSM 717) or Penicillium WS90001 (DSM 717) (I). Pref. the microorganisms are cultured in a nutrient medium containing glucose or glycerine as well as creatinine, salts and vitamins.

(I) are microorganisms used as starting materials for the new enzyme which may be used in the functional diagnostics of the kidneys. Creatin-amidinohydrolase is a specific soluble enzyme which can catalyse creatinine.

The pref. nutrient medium contains 0.5 wt.% glucose or glycerine; 0.5 wt.% creatinine 0.08 wt.% $(NH_4)_2SO_4$; 0.02 wt.% $MgSO_4$ hydrate, traces of $FeSO_4$, $CaCl_2$ and $MnSO_4$; 0.5 wt.% yeast extract, nicotinic acid, thiamine-p-aminobenzoic acid, 1 mg vit B_6 and 0.1 mg biotine in M
10 potassiumphosphate buffer. 5.5.71 as 167120 (3pp279)

REGC D16 62235T/39 =DS 2213-13
D-vanillylmandelic acid determination in biological sample - - b
specific enzymic degradation to vanillyl glyoxylate/vanillin
UNIV OF CALIFORNIA 19.03.71-US-126295
*B04 R16 (02.08.79) *BE-780-875 C12d-13/08 G01n-31/14*

An active enzyme prepn. (I) which oxides D(-)-4-hydroxy-3-methoxymandelic acid stereospecifically, is prepared b culturing Pseudomonas putida A (ATCC 17426) in a medium contg. mandelate, followed by disruption of the cells, separation of the cell debris and isolation of (I). Pref. the cells are disrupted using ultrasonic means in a buffer of ca. pH-8.0.

(I) is used for stereo-specific determination of D(-)-4-hydroxy 3-methoxymandelic acid in biological fluids such as urine, giving indications of e.g. schizophrenia or pleochromocytoma. (I) allows simple, fast and specific determinations.

The pref. determination mixts. the liquid after enzyme reaction with pref. 1,2-diaminonaphthaline which forms fluorescing cpds. with the cpds. present in the sample. The fluorescens analysis is 20-40 x more sensitive than UV absorption. 17.3.72 as 213134 (5pp279)

DSOP D16 29956W/18 =DS 2448-648
Lactobacillus bulgaricus compsns. - for treatment of gastritis, stomach and duodenal ulcers
DSO PHARMACHIM 11.10.73-BG-024712
*B04 (02.08.79) *NL7413-373 A61k-35/74*

Compsns. (I) are obtd. by culturing Lactobacillus bulgaric-us B 51-1m/65 in a soya bean nutrient medium, using anaerobic conditions at 35-42 °C for 18-24 hrs. After drying the culture, saccharose is added and the mixt. is granulated and tabletted whereby a tablet of 2.5 g. contains 1.575 g dried culture and 0.925 g saccharose. The soyabean nutrient medium is obtd. by pouring 1500 l tap-water on 60 kg. soyabean pieces; the mixt. is extracted for 1 hr. at 120 °C, centrifuged after cooling to 70-80 °C and 1% saccharose is added to the cleared extract.

(I) may be used in the treatment of gastritis, gastric- and duodenal ulcers. (I) is a pure biological remedy and contains no alkalising, anaesthesising or analgesic components. It has not only symptomatic- but also therapeutic activity on the ulcers. 11.10.74 as 448648 (3pp279)

PHIP D16 18860X/11 =DS 2554-118
Monocellular protein prodn - by fermentation of alcohol foam
PHILLIPS PETROLEUM CO 06.12.74-US-530422
*(02.08.79) *BE-834-936 C12d-13/06*

Single cell protein is prepd. by the microbial fermentation of MeOH. The fermentation mixt. is stirred so that it forms a foam which fills the fermentation zone, which is pref. kept at 30-65 °C under 1-100 (1-10) atmos.

The single cell protein can be used (i) as food components, e.g. for poultry, pigs and cattle, or, directly or indirectly, for human nutrition, and (ii) in prepn. of protein coats, adhesives. Foam fermentation increases productivity. 2.12.75 as 554118 (7pp200)

KERJ D16 48957Y/28 =DS 2558-750

Living cells prodn. for absorbing metals from liqs. - by exposure to an electric field to modify cell membrane

KERNFORSCHUNGS JULICH 24.12.75-DT-558750

*K05 M25 (02.08.79) *DT2558-750 B01d-13/04 B01d-15/08 B01j-01/22 C12k-03*

A cell wall-contg. living organism cell suspension in a physiological soln. is prepd. by exposing Chlorella-, Dunalliela algae or sea-water bacteria MB 22, suspended in physiological soln. in density ⩽ 20 wt.% w.r.t. fresh cell wt., to an electric field. Field strength and activity time are such that cell membrane is changed and cell interior materials, having dia. 2-50 Å, pass from cell interior into the physiological soln., but are limited so that cell membrane changes can be healed by cell regeneration.

The compsn. is capable of absorbing metal ions from a physiological fluid. Compsns. capable of enriching metals from an aq. soln. contg. ⩽ 0.5 mmol/l Mg- and/or Ca and K ions are prepd. by adding 10^{-6} mol/l protein synthesis inhibitors to the physiological soln. The compsns. can be used for recovering U and Li from sea-water and for recovering metals from industrial waste water. 24.12.75 as 558750 (3pp200)

BEHW D16 59354Y/34 =DS 2605-469

Glycoprotein fractions prodn. from rabies virus - by isoelectric fractionation of the dissociated glycoproteins, useful in vaccine prodn.

BEHRINGWERKE AG 12.02.76-DT-605469

*B04 C03 (02.08.79) *BE-851-404 A61k-39/28 C07g-07 +A61k-37*

An immunologically-active cleavage product of the rabies virus is isolated from the glycoprotein fraction obtd. by sepg. the fraction using isoelectro focussing. The fraction with an isoelectric point between pH 6.8-7.4 (I) is then isolated. This is dialysed against distilled water and opt. further lyophilised. In a pref. embodiement the isolated fraction (I) is used as an inocculant together with usual adjuvants and stabilising agents.

(I) may be used as a vaccine against rabies. Compared with the known vaccines obtd. from inactivated virus, (I) shows about the same antigenic activity with less side-effects.

In an example a rabies virus culture is cloned in BHK-21 cells and multiplied in roll cultures of BHK-21-C-13 cells. The virus obtained is treated with Triton X-100 (RTM) worked up, subjected to electrofocussing, dialysed and finally lyophilised. 12.2.76 as 605469 (3pp279)

KURE D16 46972Y/27 =DS 2659-808

Polysaccharides bonded to proteins - from fungi of the genus Coriolus, have antioncogenic properties when given orally

KUREHA KAGAKU KOGYO 01.01.76-JA-000318

*A97 B04 (02.08.79) *BE-850-018 A61k-37/02 C07g-07 C07g-17*

Protein-bound polysaccharides from mycelium and/or bodies of Coriolus versicolor (FR) Quẽl FERM P No. 2412-2426 (strain No. CM 101-115) (I) are prepd. by (a) extn. of the mycelium and/or bodies with aq. solvents and concn. of the extract; (b) salting out of the concentrate by adding $(NH_4)_2SO_4$, dissolving the ppt. and deslating by dialysis; (c) two-step fractionation pptn. of soln. (b) with $(NH_4)_2SO_4$ whereby in the first step $(NH_4)_2SO_4$ is added up to 25% of satn. and the ppt. obtd. is discarded; in the 2nd step $(NH_4)_2SO_4$ is added up to 40% satn. and the 2nd ppt. is isolated; (d) dissolving this ppte. in water and dialysed; (e) adsorption of the dialysate on a diethylaminoethyl cellulose column, washing with water and elution with NaCl soln; and(f) furhter fractionation of the eluate with (NH_4)-$_2SO_4$ up to 40% satn. and dissolving the ppte. obtained in water, de-salting by dialysis and spray-drying of the soln. obtained.

(I) have anti-tumour activity and may be used in the intraperitonal- or oral treatment of tumours, esp. Sarcoma, Ehrlich carcinoma and Ascites hepatoma. They increase the immuno reaction of the host and inhibit or decrease

infectious diseases by virus and bacteria. Upon ora
admin. of (I) the general condition of patients impro
and the bowel activity improves and appetite increas
30.12.76 as 659808 (16pp279)

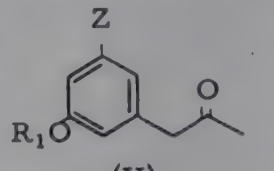
SCHD ★ D16 58189B/32 ★DS 2

Stereospecific prodn. of 1-aryl-2-propanol cpds.
microbiological redn. of aryl-acetone cpds.

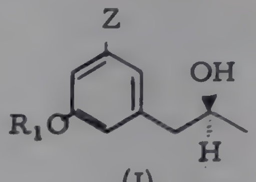
SCHERING AG 21.07.78-DT-832602

B05 (02.08.79) C07c-43/20

Prodn. of 1-aryl-2(S)-propanols of formula (I) is eff
by fermenting the corresp. arylacetone of formula (I
with a culture of the yeast Kloeckera magna (ATCC 2
(where Z is H o
R_1 is lower alky
Cpds. (I) are
useful as intern
iates for the syn
of steroids, e.g
tratriene derivs
oestrogenic and
ovulation-inhibiting activity. The process can be op
with high substrate concns. (5-15 g/l) giving up to 75
yields with a sterospecificity of ca. 96%.



(II)



(I)

The process is carried out by culturing the yeast
submerseaerobic conditions and then adding (II) in a
-le solvent, e.g. DMF, DMSO, MeOH, EtOH or met
ethanol. 21.7.78 as 832602 (3pp367)

AJIN ★ D16 58379B/32 ★DT 29

Fermentative prodn. of L-proline - using de:hydro-proline-re
mutants of Brevibacterium, Corynebacterium or Microbac
genus

AJINOMOTO KK 01.02.78-JA-010660

B03 E13 (02.08.79) C12d-13/06 C12k-03

Prodn. of L-proline (I) is carried out by culturing a
4-dehydroproline-resistant mutant of the genus Brevi
erium, Corynebacterium or Microbacterium in a nutr
medium and isolating the enriched (I).

Suitable mutants are B. lactofermentum AJ11225 (
B11421), B. flavum AJ 11226 (NRRL B11422), C. gluta
icum AJ11227 (NRRL B11423), and M. ammoniaphilum
11228 (NRRL B11424). They can be obtained, e.g. b
treating the parent strains with N-methyl-N^1-nitroso-
guanidine. Culture is pref. effected at 20-40°C and p
for 20-100 hr. in a medium contg. C and N sources,
eral salts and opt. other nutrients (e.g. vitamins and
amino acids). The B flavum mutant required L-isoleu
for growth.

The above mutants give higher yields of (I) than co
non-resistant strains. 29.1.79 as 903315(9pp367)

CHIM- D16 40655B/22 =EP ---

Terpene(s) steam-distilled from aromatic plants - for control o
infections in medical and microorganism food cultures applica

CHIMICASA GMBH 02.01.79-LU-080748 (27.01.78-LU-0789

*B05 C03 (D13) (08.08.79) *BE-873-695 A23l-01/34 A61k-*
+A61k-35/78 C12b-03/12

D/S: E(BE, CH, DT, FR, GB, IT, NL, SW).

The inactivation of viruses in the presence of living o
anisms comprises use of one or more terpenes obtai
by steam distillation of aromatic plants.

Pref. the terpenes comprise one or more of black
pepper oil, cinnamon flower oil, oil of cardamom, lin
acetate, cinnamaldehyde, safrole, carvone and cis/tr
citral.

In human and veterinary medicine in daily doses o
10 mg./kg. (pref. 0.5-2 mg./kg.) and in the food indus
for protecting cultures of microorganisms against vi
attack by use of 0.1-100 mg. of terpenes per kg. of fo
material; at this level the organoleptic properties of
foodstuff are not affected e.g. the terpenes are used t
protect lactic acid streptococci in dairy product cultu
and Saccharomyces cerevisiae yeasts in beer ferment
Tests against Adeno type 6-virus are described.

18.1.79 as 100136 (19pp395).

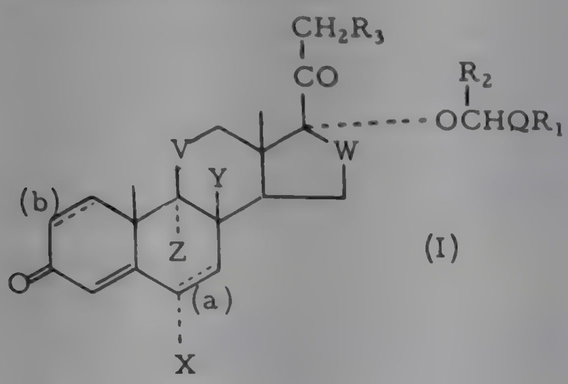
(G) ISR: GB-560800; 7 Journal References

D16 58435B/32 ★EP ---3-341

hydroxy-corticoid derivs. substd. by acetal or thio:acetal - mmatories with greater topical activity than unsubstituted

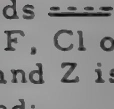
ING AG 19.12.78-DT-855465 (25.01.78-DT-803661)
(08.08.79) A61k-31/57 C07j-05 C07j-07 C07j-17 C07j-31
BE, CH, DT, FR, GB, IT, LU, NL, SW).

icoids of formula (I) are new


(I)

ds ==== are single or double;
F, Cl or Me;
and Z is H, F or Cl, or Y and Z together form a nd;
hydroxymethylene, β-chloromethylene or carbonyl;
ethylene, ethylidene or vinylidene;
or S;
-8C alkyl, opt. interrupted by an O atom, or is and R_2 is H or 1-4C alkyl, or R_1 and R_2 together imethylene or tetramethylene;
, F, Cl or a free or esterified OH gp.).

epn. of 11β-hydroxysteroids of the pregnane series, in the 17α position by acetal gps. of formula (X)


$$\overset{R_2}{\overset{|}{CH}} - OR_1 \quad (X)$$

ses fermenting a similarly substd. 11-desoxyster- he pregnane series with a culture of Curvularia Curvularia lunata).

re antiinflammatories with a topical activity great- that of the previously known 17α-hydroxycorticoids -hydroxycorticoids in which the 17α-gp. has been ied.

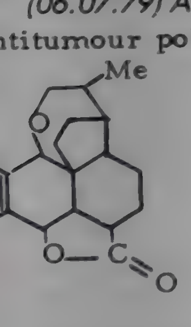
9 as 100176 (84pp1401)
: US3453297; GB1152672

★ D16 58497B/32 ★FR 2407-718

nour poly-cyclic lactone - with para-benzoquinone ring, by fermentation of Geopetalum geogenium

RAZ G L M 03.11.77-FR-033021 (11.02.77-FR-003907)
(06.07.79) A61k-31/36 C07d-493/02 C12d-13

ntitumour polycyclic lactone of formula (I) is new.


(I)

(I) is prepd. by fermentation of Geopetalum geogenium as in the parent patent. The culture filtrate from the mycelium is freeze-dried and the solid is extracted in the cold with a solvent, e.g. $CHCl_3$. Good results are obtd. with 3 x 100 ml/g of freeze-dried

The combined ext. is evapd. at room temp., the ne is dissolved in benzene and chromatographed on gel. It is eluted successively with (a) benzene, (b) (c) ether/methanol (9:1) and methanol. (I) is eluted ether, the eluate is evapd. and the residue dissolv- a $CHCl_3$-based solvent, e.g. $CHCl_3/CCl_4$, from which stallizes on standing. 3.11.77 as 033021 Add to 77 - 003907 (8pp288).

★ D16 58515B/32 ★FR 2407-982

emp. aseptic maceration of grapes to make red wine - by ensive batch process suited to small scale prodn.

AL M J F 07.11.77-FR-034063 (08.01.71-FR-001704)
(06.07.79) C12g-01/02

nstallation for treating grapes prior to the fermenta- tage, comprises two, thermally insulated vessels of The vessels are used alternately for the maceration of successive batches of drained grapes. Maceration includes soaking a batch in preheated wine to achieve a batch temp. of about 50°C., for about 10 minutes. The wine is recycled and the grapes, after maceration, are immediately transferred to a press for extn. of juice to be fermented.

Each vessel is pref. fitted with a top cover which is refrigerated to condense and return alcoholic vapours. The cover pref. incorporates an under-pressure relief trap and a restricted vent to atmos. which is cooled to minimise loss of vapour. The relief trap is pref. a counter balanced, hinged, trap door. Wine is pref. circulated through a thermostatically controlled heat exchanger and can be directed automatically via either batch vessel or to a storage tank.

The process simultaneously provides a low temp. aseptic treatment which ensures retention of pectolytic enzymes vital to clarification of the prod. The required asepsis is achieved without using, or with very little, sulphur dioxide. The installation is simple and inexpensive to a degree which makes it attractive to small and medium-sized wine producers who could not justify the investment necessary for the continuous plant. 7.11.77 as 034063 (14pp448).

MOMD D16 66864Y/38 #GB 1549-959

Nutritious medium for fodder yeast mfd. from manure, etc. - by hydrolysing conc. suspension and adding back decanted liq. fraction

MOSCOW MEAT DAIRY INST (MOME=) 15.03.77-BE-852465 (24.08.77-GB-035411)
*+P11 (D12 D15) (08.08.79) *BE-852-465 C12b-03/08*

Prepn.of a nutrient medium for cultivating microorganisms comprises (i) sepg. liq. manure into a conc. suspension and a liq. fraction, (ii) hydrolysing the suspension by heting under a pressure greater than atmospheric in the presence of a mineral acid as catalyst, (iii) sterilising the liq. fraction, (iv) mixing the hydrolysate with the liq. fraction, (v) adjusting the pH of the mixt., (vi) irradiating the mixt. to destroy yeast toxins and (vii) cooling the prod.

Pref. sludge is sepd. from the mixt. of hydrolysate and sterilised liq. fraction. The process provides an improved efficiency as regards use of manure in that organic and mineral cpds. contained in both the suspension and liq. fraction, are retained for use in the growth of fodder yeast. 24.8.77 as 035411 (8pp924)

AMER D16 18513Y/11 =GB 1550-128

Insoluble protein esp. enzume, compsn. - on microporous dispersions of filler particles in a binding agent

AMERACE CORP 29.08.75-US-609077
*A96 B04 (A97) (08.08.79) *DT2639-234 C07g-07*

An insoluble composite is prepd. comprising a microporous member which comprises a binder and ≥2 finely-divided filler particles dispersed throughout the binder, and a proteinaceous substance bound to ≥ some of the filler particles.

Pref. the microporous member comprises a network of interconnected micropores having size distribution of 0.01-100 microns as determined porosimetrically by the mercury intrusion method. Filler particles comprise ≥25 wt.% of microporous member, and comprise silicious material. Binder comprises PVC or hard rubber. Proteinaceous substance is glucose oxidase, aldose-1-epimerase-alpha-D-fructofurananosidase, alcohol, dehydrogenase or glucose isomerase.

The insoluble composite is esp. used as a means for immobilising enzymes by coupling or bonding. 17.8.76 as 034237 (14pp931)

KAPA D16 41979Y/24 =GB 1550-151

Immobilising enzymes or microbial cells - in photohardening resin contg. photopolymerisable ethylenically unsatd. gps. and ionic hydrophilic gps.

KANSAI PAINT KK 26.11.75-JA-140840
*A97 B04 (08.08.79) *DT2629-693 C07g-07/02*

Enzymes or microbial cells are immobilised by uniformly mixing an aq. dispersion of enzymes or cells with a photocurable resin of average mol. wt. of 300-30,000 having ≥2 photopolymerisable ethylenically unsatd. gps. per mol. and having ionic hydrophilic gps. The mixt. is then irradiated with actinic radiation.

Pref. the enzymes are urease, glucose oxidase, catalase, glucoamylase, glycose, isomerase, invertase, glucose oxidase-catalase, lactase, D-amino acid oxidase, alpha-galactosidase, aminoacylase, aspartase or penicillin amidase. Cells are Lactobacillus bulgaricus, Aerobactes aerogenes, Bacillus subtilis, Azotobacter vinelandii or Proteus vulgaris.

The immobilised enzymes or cells used can be shaped into any desired configuration and have no toxicity. 30.6.76 as 027333 (6pp931)

SNAM D16 04317Y/03 =GB 1550-153
Improving oxidoreductase enzyme activity - by incorporating to fibrous structure with coenzyme preliminarily bonded to water soluble polymer BE100177)
SNAMPROGETTI SPA 10.07.75-IT-025251
*A96 B04 R16 (08.08.79) *DT2631-045 C07c-101/08 C07g-07/02 C07j-01 C07j-05*

An enzymatically active structure is prepd. which comprises ≥1 oxidoreductase enzyme, and ≥1 coenzyme which is an adenine deriv. where 1 H of the 6-amino gp. of the adenine ring system is substd. by a substd. alkyl gp. of formula $-CH_2CHOH(CH_2)_nCOX$.

In the formula, X is an amino gp. which forms a pt. of a water soluble polymer; n is 1-4. The enzyme(s) and coenzym(s) are distributed throughout a body of water insoluble polymeric encasing material. The distribution is such that the enzyme(s) and coenzyme(s) are retained in the body so that on contact with a reaction medium are capable of effecting or assisting respectively the enzymatic reaction to which the medium is subjected.

Oxidoreductase susts. prepd. have improved activity. Enzyme-carrying supports can be easily separated from the reaction mixt. and reused. 8.7.76 as 028526 Add. to 1510894; 1510534 (5pp931)

MOCH D16 27221A/15 =GB 1550-320
Immunochemical assay using labelled antibody - employs antigen rendered insoluble and being of same substance as antigen substance to be measured NL 3.4.78)
MOCHIDA SEIYAKU KK 30.09.76-JA-117621
*B04 J04 R16 (08.08.79) *DT2743-444 G01n-33/16 +C07g-07*

Immunochemical measuring process comprises reacting a labelled univalent antibody and an insolubilised antigen with an antigenic substance to be measured. Pref. the univalent antibody is a papain digested fragment or pepsin digested and reduced fragment of the antigenic substance to be measured.

Pref. the labelling agent is radioisotope, enzyme or fluorescent material. The antigen is pref. insolubilised by binding to a polysaccharide or plastics carrier.

Process has good sensitivity and can measure haptens. 20.9.77 as 039133 (12pp964)

NEWA/ ★ D16 58562B/32 ★GB 2013-170
Methane prodn. from wastes - by anaerobic digestion of liq. fraction
NEWALL P J 29.12.77-EI-002633
E17 H09 (08.08.79) C02c-01/14

Prodn. of methane from waste prods. (esp. animal slurries) is carried out by (a) holding the slurry for a time long enough to allow fermentation and conversion of the organic fraction to volatile acids; (b) sepg. a liq. fraction contg. the volatile acids from a solids fraction; and (c) feeding the liq. fraction into an anaerobic methane digester contg. a bacteria-holding matrix.

The slurry (e.g. from an intensive pig-rearing unit) is fed into a holding-settling tank, where it is kept for the required residence time. The supernatant liq. is then fed via a series of perforated pipes into the base of an aerobic filter, e.g. packed with limestone pebbles or gravel supported by a perforated plate. The liq. percolates through the filter at a temp. of 25-35°C. and a pH of 6.8-7.4.

The process can be operated with short residence times (≤ 1 day) using wastes with a strength of up to 20,000 mg./l. (as acetic acid). 20.12.78 as 049354

SEGK ★ D16 58806B/32 ★J5
Culturing Streptomyces sp IID 6646 to produce neurami
using culture medium contg. peptone, heart extract,
sodium carbonate and sodium di:hydrogen phosphate
SEIKAGAKU KK 07.12.77-JA-146168
(27.06.79) C12d-13/10 C12k-03

The method comprises using culture medium contg
tone 2-7%, heart extract 0.4-1.5%, lactose 0.1-0.
≥ 0.3% of the inorganic salt must be of Na_2CO_3 ar
NaH_2PO_3, of which proportion is so decided that in
pH of the culture medium can be kept at 7.0-7.5.

Yield of neuraminidase can be greatly increase
10 times that of conventional method without using
er. Specifically culture is practised at 20-40 (27-3
for 10-24 (16) hrs. 7.12.77 as 146168 (5pp5)

INOZ ★ D16 58807B/32 ★J5
Fermentative prepn. of organic acid - by aerobic cultiv
microorganism in medium contg. mono-or polysacch
carbon source, nitrogen source and vitamin/P
INOUE 09.12.77-JA-148416
E19 (27.06.79) C12d-01/02

Prepn. of organic acid having active gps. such as
ol gps., carboxyl gps., long chain alkyl gps., etc.
rises culturing a microbe aerobically in a culture
which contains (a) monosaccharide or polysacchari
carbon source; and (b) acidic N source and which h
> 4, improvement comprises combining vitamin
0.1-10% in the culture medium.

Pref. acidic N cpds. include NH_4Cl, $(NH_4)_2SO_4$,
onium phosphate, ammonium acetate, etc. Microbe
bacteria, mould, yeast, etc. can be used. Yield of
ic acid is increased by 2-3 times by addn. of vitam
the culture medium. 9.12.77 as 148416 (3pp5)

KYOW ★ D16 58808B/32 ★J5
Fermentative prodn. of l-cysteine and/or l-cystine - by
strains of Paracolobactrum, Micrococcus, Escherichia Kleb
Bacillus genus
KYOWA FERMENTATION KK 05.12.77-JA-145140
B05 (27.06.79) C12d-13/06

Prodn. of L-cysteine and/or L-cystine by fermenta
which comprises culturing Paracolobactrum, Micr
Escherichia, Klebsiella or Bacillus genus in nutrie
ture.

L-cystein and L-cystine are administered as ale
rmac agents against toxic action (poison antidote) c
by digitalis, strychinine, or caffeine; expectorant,
ement of nutrition, and a reagent for biochemical s

As examples of fungi strain may be cited Paraco
trum coliforme KY 8482 (FERM P-429), NRRL B-1
(selenocystin-resistant), Micrococcus luteus KY 71
RM P-4292, NRRL B-11224) (1,2,4-triazole-resist
Escherichia coli LY 8234 (FERM P-4293; NRRL B-
(S-methylcystine-resistant), Klebsiella pneumoniae
7006 (FERM P-4294, NRRL B-11, 226) (1,2,4-tria
resistant), Bacillus subtilis KY 8071 (FERM P-429
RL B-11, 227) (selenocystine-resistant). 5.12.77 a
145140 (4pp69)

ORIY ★ D16 58811B/32 ★J5
NAD prodn. using Saccharomyces or Candida culture
biosynthesis reaction mixt. contg. nicotinic acid
nicotinamide together with ribose-5 phosphate and ad
tri:phosphate
ORIENTAL YEAST KK 00.00.78-JA-054368
B02 (27.06.79) C12d-13

Prodn. of NAD comprises culturing yeast fungi body
ing NAD biosynthesising power of Saccharomyces ge
(such as Saccharomyces cerevisiae, Saccharomyce
Saccharomyces carlsbergensis), Schizosaccharomy
genus, Zygosaccharomyces genus or Candida genus
out fungi body from the culture liq. after completio
culture and biosynthesising NAD in reaction mixt.
(A) nicotinic acid and/or nicotinamide, (B) ribose-5
sphate and (C) adenosine triphosphate by means of
ic surfactant-treated yeast fungi body having NAD

D16 58812B/32 ★J5 4080-494
odn. using Saccharomyces or Candida culture - and
esis reaction mixt. contg. quinolinic acid, ribose-5-
ate and adenosine tri:phosphate
NTAL YEAST KK 00.00.78-JA-054369
(27.06.79) C12d-13

of NAD comprises culturing yeast fungi body hav-
D biosynthesising power of Saccharomyces genus
Saccharomyces cerevisiae, Saccharomyces sake
charomyces carlsbergensis, Schizosaccharomyces
Zygosaccharomyces genus or Candida genus, sepg.
gi body from the culture liq. after completion of
and biosynthesising NAD in reaction liq. contg.
nolinic acid, (B) ribose-5-phosphate and (C) aden-
riphosphate by means of NAD-biosynthesising yeast.
ody treated with cationic surfactant. 5.12.77 as
78 (4pp69)

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r D16 58813B/32 ★J5 4080-495
vin prodn. - by culturing yeast of genus Hansenula in culture
n contg. methanol
UBISHI GAS CHEM IND 08.12.77-JA-147454
E13 (27.06.79) C12d-05/04

avin is produced by culturing riboflavin-prodg. yea-
enus Hansenula in culture medium contg. methanol
in carbon source. Riboflavin, vitamin B_2, is usef-
pharmaceuticals. As fungi strain may be used e.g.
nula polymorpha I-3 (FERM P-3929) and Hansenula
endra (CBS-6075).

an example culture medium was prepd. by dissolv-
g of methanol, 4 g of KH_2PO_4, 3 g of $(NH_4)_2SO_4$, 0.4
$gSO_4.7H_2O$, 0.2 mg of $FeSO_4.7H_2O$, 5 mg of $CaCl_2$.
0.5 mg of $MnSO_4.4H_2O$, 0.2 mg of $CuSO_4.5H_2O$,
of viotin and 4 mg of thiamine hydrochloride in 1 l
e water and adjusting pH of resultant soln. to 4.5.
77 as 147454 (6pp69)

★ D16 58814B/32 ★J5 4080-497
g of sake from koji mould - which is prepd. using steamed
oody ash and calcium or magnesium ion
KUZEI-CHO CHOKAN 03.12.77-JA-144634
27.06.79) C12g-03/02

ethod comprises forming a non-browning variety of
mould showing strong saccharifying activity from a
erriferrichrome-forming variety of 'koji' mould pr-
g the seed 'koji' using steamed rice combined with
ash and calcium ion or magnesium ion and brewing
using thus obtd. seed 'koji' as usual.

e prepn. of the seed 'koji' is pref. effected at 33-36
der RH 94-98%. It is also desirable to add anhydro-
cium carbonate with woody ash in steamed rice pre-
ly and usually anhydrous calcium carbonate is used
.0 w/w% on starting rice. 3.12.77 as 144643 (3pp5)

★ D16 58815B/32 ★J5 4080-498
syoyu prepn. - by contacting syoyu and hydrophilic solvent
semipermeable membrane to transfer water through
rane with solvent
MASA SHOYU KK 05.12.77-JA-145125
(27.06.79) A23l-01/23

od comprises contacting syoyu with hydrophilic solv-
rough semi-permeable membrane to transfer the
in syoyu through the membrane in the hydrophilic
ic solvent.

hydrophilic organic solvent ethanol, glycerin and/or
yleneglycol can be used. The solvent has a low cont-
nd in the case of ethanol it is required to have a con-
$>$ 80(pref. $>$ 90)%. The membrane is stable to the
ic solvent used and practically PVA film and cellul-
ilm can be used.

onc. syoyu is easily prepd. effectively without the
of effective ingredients and without redn. in quality.
.77 as 145125 (6pp5)

/ ★ D16 58848B/32 ★J5 4080-877
ed calcareous fertiliser - comprising granular quicklime with
nate coating, preventing autogenous ignition
URIHARA K 07.12.77-JA-146880
04 (27.06.79) C04b-01 C05d-03/02

by forming a carbonate layer on the surface of granular quick lime materia

The granular quick lime material has the risk of cau
ing autogenous ignition during piling-storage. The prese
prod. has no such defect. The autogenous ignition prope
ties due to pressure have been almost completely remov
by the formation of carbonate layer on the surface of the
granular quick lime. Even if 150 kg/cm^2 pressure is app
-ied to the present prod., temp. rise is not observed.
7.12.77 as 146880 (2pp108)

NAGA/ ★ D16 58849B/32 ★J5 4080-8
Calcium-contg. compost prodn. - by culturing aerophilic bacteria
mixt. of sponge-like calcareous porous material and compost
NAGATA T 22.11.77-JA-140261
C04 (27.06.79) A01n-15 A23k-01/17 C05b-17 C05f-09/04

Calcium compost is obtd. by culturing aerophilic bacteri
in a mixt. of a sponge-like calcareous porous body and
compost material (vegetable organic material). The spon-
ge-like porous body may be e.g. blast furnace slag, con-
verter slag, coral reef, coral sand, bone powder, etc.
The wt. ratio of the porous body to the vegetable organic
material is 2 : 98-98 : 2. As aerophilic bacteria there ar
used, e.g. Nitrosomonas, Azobacter, etc. Fermentation
is at 15-75°C, pH 4-10, humidity 60-70% and in the shad

The smell is removed due to the heat generated durin
fermentation, even if excrements of human beings, sludg
and excrements of domestic animal are used. The prod.
has moderate humidity and particle size, and does not
create dust.

The prod. can be used as feedstuff for domestic anim-
als and cultivated fish. When it is fed to hens, occurrenc-
es of diseases can be reduced and the thickness of the eg
shell is increased. Similarly occurences of diseases are
reduced in the case of fish. By applying the prod. to soil,
high calcium content plants are produced. It improves th
physical property of soil for long periods and neutralises
the acidic soil for long periods. 22.11.77 as 140261 (10p

KURI/ ★ D16 58850B/32 ★J5 4080-88
Granular compost for paddy rice, wheat, vegetable etc. - produce
by mixing waste fibres from paper mfr. with coagulated wast
precipitate from a pulp factory, and fermenting
KURIHARA K 08.12.77-JA-147621
C04 F09 (27.06.79) C05f-07

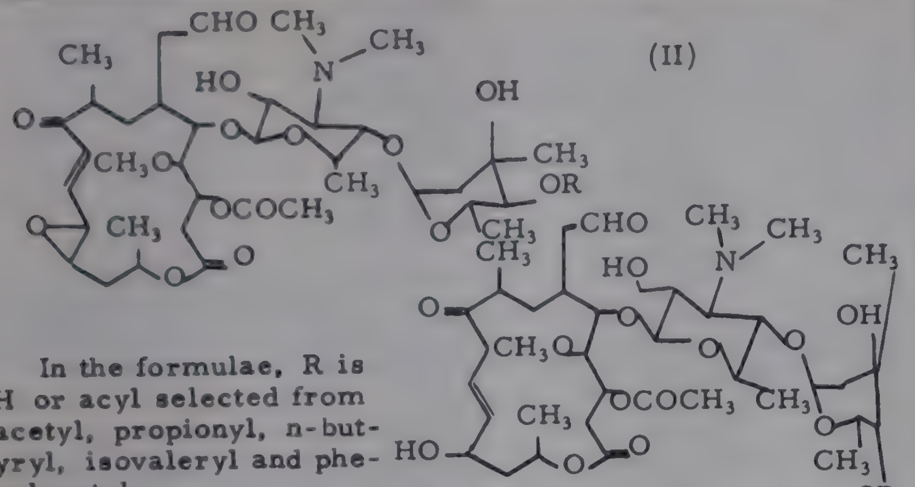
The compost is obtd. by mixing waste fibres from a pape
-mfg. factory with the coagulated ppte. from a pulp-mfg.
factory, and fermenting the mixt. in a fermenter. The
fermenter also acts as a granulating aid.

In an example, 100 kg of waste fibres from a paper-mfg. factory, .5 kg of diammonium hydrogenphosphate, 30
kg of coagulated ppte. from kraft-pulp waste liq. and 10 kg
or iron-mfg. blast furnace slag are mixed, and put in an
inclined rotary fermenter. The temp. is adjusted to 40°C,
and water content is adjusted to about 65%. The rotary
fermenter is operated at 5 r.p.m. After 2 hrs., the fermented prod. is removed. The recovery percentage of the
compost is 87%. The compost has an average size of 5 mn
with a water content of about 45%, and has a smooth surface.

The fertiliser is suitable for soil-conditioning and cultivation of crops, and is easily handled. The compost is
applied to e.g., paddy rice, wheat, flowering grasses and
vegetables. 8.12.77 as 147621 (3pp108)

SAOC ★ D16 58950B/32 ★J5 4081-288
Antibacterial 16-membered macrolide deriv. prodn. - by
anaerobically reacting corresp. antibiotic with e.g. culture of
bacteria
SANRAKU OCEAN 09.12.77-JA-148490
B02 (28.06.79) A61k-31/71 C07h-17/08

Prodn. of 16-membered macrolide derivs. of formula (II)
or their nontoxic acid-addn. salts comprises biochemically reacting of 16-membered macrolide antibiotic of formula (I) with culture, cell or processed prod. of bacteria in
an aq. medium of pH 4-10 in that absence of O_2 or in an
atmos. substd., with N_2, Ar or He at 15-45°C stationarily
with shaking.



In the formulae, R is H or acyl selected from acetyl, propionyl, n-butyryl, isovaleryl and phenylacetyl.

The prod. gives a higher concn. in the blood and is useful for treating bacterial infectious diseases. 9.12.77 as 148490(9pp38)

KANF D16 78084Y/44 =J7 9019-462

Cell-free yeast culture medium as yeast growth promoter - added to the culture medium contg. hydrocarbons, alcohols, or organic acids as carbon sources

KANEGAFUCHI CHEM KK 30.03.74-JA-035747
*(16.07.79) *J50126-872 +C12c-11/08*

Addn. of a cell-free aq. culture medium of thiamine-requiring yeasts (e.g. Candida, Torulopsis, Trichosporon, Rhodotoruls, and Cryptococcus) to the culture media contg hydrocarbons, alcohols, or organic acids as C sources for Pichia, Saccharomyces, Zygosaccharomyces, Candida and Torulopsis increased the growth of the yeasts.

In an example, Cryptococcus luteolus IFO 0411 was cultured aerobically at 25° in a medium contg. 20g glucose 4g KH_2PO_4, 5g $(NH_4)_2SO_4$, 0.6g $MgSO_4$, 30mg $ZnSO_4$, 50mg $FeSO_4$, 20μg biotin, 2mg Ca pantothenate, 2μg folic acid, 10mg inositol, 200μg p-aminobenzoic acid, 400μg pyridoxin-HCl, 200μg riboflavine 200, 400μg thiamine-HCl, and water to a total vol. of 1 litre. When the yeast was fully grown, the culture medium was centrifuged. The supernatant liq. was added to a medium contg. the same constituent except paraffin 13g/l. replacing glucose.

Candida novellus ATCC 20,275 was inoculated in the medium and incubated under the same condition. The cell yield was 9.8, 12, and 9.1g/l. for the yeast grown in the medium contg. 0.1, 10, and 0% Cryptococcus culture supernatant liq., respectively. 30.3.74 as 035747 C12c-11/08 (16.7.79) KANEGAFUCHI CHEM KK (4pp) (J5 0126872)

MITN ★ D16 59222B/32 ★J7 9019-463

Yeast cell body prepn. - by culturing microorganism of genus Candida alcomigas in medium contg. methanol and/or ethanol

MITSUBISHI GAS CHEM IND 26.04.73-JA-047410
(16.07.79) C12c-11/08

A microorganism belonging to the genus Candida alcomigas which can assimilate methanol and/or ethanol, is cultured on a culture medium contg. methanol and/or ethanol, and from the culture broth, the cell body is recovered.

Example of the microorganism is Candida alcomigas Ya-23 (FERM No. 1973). 26.4.73 as 047410 C12c-11/08 (16.7.79) MITSUBISHI GAS CHEM IND (6pp22)(J4 9133581)

MITN D16 31473W/19 =J7 9019-464

Cultivation of Hansenula alcolica yeast - in medium contg. (m)ethanol

MITSUBISHI GAS CHEM IND 11.05.73-JA-052385
*(16.07.79) *J50004-286 +C12c-11/08*

Hansenula alcolica (FERM-P 2065) was cultured on a medium contg. MeOH and/or EtOH.

In an example, the microbe was cultured on 500ml medium (pH 4) contg. KH_2PO_4 4, $(NH_4)_2SO_4$ 3, and $MgSO_4.7H_2O$ 0.4g, $FeSO_4.7H_2O$ 0.2, $CaCl_2.2H_2O$ 5, and $MnSO_4.4H_2O$ 0.5 mg plus biotin 4 and thiamine 200ug/l in which 5g MeOH was added at 30° for 48 hrs. controlling the pH to 4-1.8g dry cells were obtd. 11.5.73 as 052385 C12c-11/08 (16.7.79) MITSUBISHI GAS CHEM IND (3pp) (J5 0004286)

MITN D16 02676X/02 =J7 9

Cultivation of acetic acid assimilating yeast - on medium co than 30 ppm oxygen and less than 380 ppm carbon dioxide

MITSUBISHI GAS CHEM IND 05.12.73-JA-135938
*(16.07.79) *J50088-281 +C12c-11/08*

A HOAc assimilating yeast was cultured at 25-43° o medium contg.<0.3 wt.% HOAc while adjusting conc the dissolved O_2 and CO_2 to <30 and <380 ppm res the pH to 2-5.5.

In an example Hansenula alcolica UM-88 (FERM- 2065) was cultured at 30° on 500 ml medium (pH 4. contg. 4g KH_2PO_4 3g. $(NH_4)_2SO_4$ 0.4g. $MgSO_4.7H_2O$ NaOAc per l. plus minor amts. of $FeSO_4.7H_2O$ CaC $2H_2O$, $MnSO_44H_2O$, $CuSO_45H_2O$ biotin, and thiamine- while aerating a mixt. of CO_2 and air at 500ml/min. controlling the CO_2 concn. in the air phase of tank to 0.2 or 1 vol.%.

In both cases generation time was 2 hrs. and cell against HOAc was ~38%. 5.12.73 as 135938 C12c-1 (16.7.79) MITSUBISHI GAS CHEM IND (10pp) (J5 00

ASAH D16 57003X/30 =J7 9

High purity, high protein microorganism cells for feedstuff - o growing methanol assimulating Aeromonas in medium methanol as carbon source

ASAHI CHEMICAL IND KK 04.12.74-JA-138534
*C03 (D13) (16.07.79) *J51067-783 +C12c-11/08*

A methanol-assimilating microorganism belonging to genus Aeromonas is grown in a medium contg. meth as a carbon source and the produced microorganism are collected.

In an example, Aeromonas methanolphilum nov. s R-1014 was used with culture medium contg. MeOH (variable) 1.5% by vol. urea 0.10% by wt. ammoniun sulphate 0.30, dipotassium hydrogenphosphate 0.70, assium dihydrogenphosphate 0.20, magnesium sulpha 0.003, manganese sulphate 0.004, sodium chloride calcium chloride 0.01, yeast extract 0.05, pH 7, An of the cells produced gave; crude protein 75.1%, cr fat 6.2, crude ash 8.9, water (based on dry matter) 4.12.74 as 138534 C12c-11/08 (16.7.79) ASAHI CHE IND KK (6pp) (J5 1067783)

SHIO D16 26705X/15 =J7 90

2-Keto-L-gulonic acid prepn from D-glucose by fermentation - mixed culture of two microorganisms (NL230376)

SHIONOGI KK 20.09.74-JA-109314
*B05 E17 (16.07.79) *DT2530-861 C12d-01/06*

2-Keto-L-gulconic acid (I), (salts), is prepd. by cult (I) a microorganism of the genus Acetobacter, Aceto or Gluconobacter capable of producing 2,5-diketo-D- conic acid (II) from D-glucose, or an enzyme or enzy concentrate derived therefrom, and (ii) a microorga of the genus Brevibacterium or Corynebacterium cap of converting (II) into (I), or an enzyme or enzyme co centrate derived therefrom, in a medium contg. D-gl the 2-microorganisms (or enzymes) being capable of existing in the medium for long enough to produce (I) salt.

D-Glucose may thus be converted into (I) in a sing step without formation of the unwanted D-isomer any keto-D-gluconic acid formed is converted back to (II). is an intermediate for the prodn. of ascorbic acid. 20 as 109314 C12d-1/06 (16.7.79) SHIONOGI KK (20pp) (J5 1035485)

MITK D16 06389V/04 =J7 901

L-lysine prodn - from arthrobacter etc

MITSUI TOATSU CHEM INC 21.01.72-JA-007632
*B05 (16.07.79) *J48077-087 +C12d-13/06*

L-Lysine (I) was produced by Arthrobacter sp. No. 674 (II, FERM-P 1302), No. 1172-193 (FERM-P 1295) Cor bacterium sp. No. 351-23 (FERM-P 1301) Brevibacter sp. No. 1304-31 (FERM-P 1303) and No. 1443-54 (FER 1299). These mutants were obtd. by N-methyl-N'-nitr nitrosoguanidine treatment and selected by resistance against >0.05 mg/ml. of I-analogues shown by NH_2-C

2) and S-(β-aminoethyl)-L-lysine hydroxamate (X
cultured by a jar fermentor in a medium (pH 7. 5)
lucose 160g $(NH_4)_2SO_4$ 20g K_2HPO_4 1g $MgSO_4 7H_2O$
O_3. $7H_2O$ 0. 01g $MnSO_4 7H_2O$ 0. 01g casamino acid
tin 300γ vitamin B_1HCl 200γ, $CaCO_3$ 25g and urea
l. H_2O at 32° for 89 hrs. HCl salt of I was pro-
43. 8g/l. It was adsorbed in a strong ion exchan-
+ type), eluted with dil. NH_4OH and concd. under
ced press. 385g from 10 l. cultured filtrate.
as 007632 C12d-13/06 (16. 7. 79) MITSUI-TOATSU
ALS CO LTD (12pp) (J4 8077087)

D16 06390V/04 =J7 9019-470

rodn - by fermentation

I TOATSU CHEM INC 21.01.72-JA-007633

*(16.07.79) *J48077-088 +C12d-13/06*

e (I) was produced by Arthrobacter sp. No. 55-8
P 1296) No. 1162-166 (II, FERM-P 1304) Coryne-
m sp No. 1202-138 (FERM-P 1306) Brebacterium
899-31 (FERM-P 1298) and No. 1506-13 (FERM-P
These mutants obtd. by N-methyl-N'-nitro-N-nitro
idine treatment were selected by resistance against
gues shown by $NH_2CH_2CH_2S\text{-}CH_2\underset{X}{C}H\text{-}\underset{NH_2}{COOH}$ (where X
of C_{1-3}, O,
ic antagonist.
example 3-(β-aminoethyl sulphinyl-L-alanine (X
d 3-S-methyl-S-(β-aminoethyl thio-L-alanine (X is
was cultured by a jar fermentor in a medium (pH
ntg. glucose 160g, $(NH_{42}SO_4$ 20g K_2HPO_4 1 g $MgSO_4$.
4g $FeSO_4$. $7H_2O$ 0. 01g $MnSO_4 7H_2O$ 0. 01g casamino
2g, biotin 300γ, vitamin B_1HCl 200γ, $CaCO_2$ 25g,
a 8g per 1 l. H_2O at 30° for 76 hrs. HCl salt of I
oduced by 41. 9g/l. By the ordinary ion exchanger
reatment, 366g of HCl salt of I was obtd. from 10.1
d filtrate. 21. 1. 72 as 007633 C12d-13/06 (16. 6. 79)
TOATSU CHEMICAL INC (11pp) (J4 8077088)

D16 06391V/04 =J7 9019-471

prodn - from arthrobacter and corynebacterium

UI TOATSU CHEM INC 00.00.72-JA-007634

*E16 (16.07.79) *J48077-089 C12d-13/06*

ne (I) was produced by Arthrobacter sp. No. 269-51
RM-P 1305) Corynebacterium sp. No. 738-26 (FERM
0). These mutants obtd. by N-methyl-N'-nitro-N-
guanidine treatment were selected by resistance
I-analogues shown by $R\text{-}CH_2\text{-}CH_2\text{-}S\text{-}CH_2\text{-}CH(NH_2)$-
where R is 2-pyridyl, 4-pyridyl, 2-pyridyl, 4-
, 2-amino-4-pyridyl.
n example S-β-(2-pyridyl) ethyl-L-cystein (R is 2-
). II was cultured in a medium (pH 7. 5) contg. glu-
60g $(NH_{42}SO_4$ 20g, K_2HPO_4 1g, $MgSO_4 7H_2O$ 0. 4g
$7H_2O$ 0. 01g $MnSO_4 7H_2O$ 0. 01g casamino acid 0. 2g
00γ vitamin B_1HCl 200γ, $CaCO_3$ 35g and urea 8g at
72 hrs. HCl salt of I was produced by 35. 5 g/l;
cryst. of HCl salt of I was obtd. by the ordinary
hange method. 21. 1. 72 as 007634 C12d-13/06
79) MITSUI TOATSU CHEMICALS INC (11pp)
7089)

D16 55876V/31 =J7 9019-472

mino-gamma-methylphosphinyl butyric acid prepn - from and l-Ala-Ala

CONFECTIONARY 21.07.72-JA-072585

*C01 (16.07.79) *J49031-890 +C12d-13*

no-γ-methylphosphinyl butyric acid (I) was produced
F-1293, I-Ala-Ala, catalysed by the culture broth,
or enzyme prepn. of Achromobacter, Brevibac-
, Escherichia, Flavobacterium, Gluconobacter,
monas, Erwinia, and Str ptomyces. (I) as well as
93 had antifungal activity; min, inhibition concn. (in
was 1. 9, 0. 45, 0. 45, and 3. 9γ/ml against Botrytis
a, Pellicularia sasaki, Leptosphaeria salvini, and
laria oryzae, resp.
ucture of I was assumed by m. pt. , sp. rotation,
ntally anal. , and RF on cellulose thin layer chroma-
. Coli IAM-1268 was cultured with shaking at 28° in
uillon medium. After 24 hrs. , the broth was added
00mg SF-1293 and further cultured for 48 hrs. The

ugh a column of Dowex 50Wx2 (H^+). (I) adsorbed was eluted with 1 N NH_4OH, concd. , adsorbed on Dowex 1x2 (OAc), eluted with 1 N HOAc and dried; 100 mg of cells sepd. from 100ml culture broth were suspended in 100ml M/15 phosphate buffer (pH 7. 5), added to 100 mg SF-1293 and the mixt. reacted with shaking at 37°, for 48 hrs; 32mg (I) was sepd. by Dowex 1x2. 21. 7. 72 as 072585 C12d-13/00 (16. 7. 79) MEIJI CONFECTIONARY CO (4pp) (J4 9031890)

PFIZ D16 56763T/36 =J7 9019-474

D-mannitol prodn - by aerobic fermentation culture of candida lipolytica strain on linear paraffin medium

PFIZER INC 18.02.71-US-116670

*B05 E17 H04 (16.07.79) *DT2203-467 C12d-13/04*

Candida lipolytica ATCC No. 20297 is cultured in an aq. nutrient medium contg. ≥1 12-18C n-paraffin as main source for assimilable C, pref. for 8-9 days at 24-25° C and the D-mannitol formed is directly recovered by crystallisation from the clarified and de-ionised fermentation liquor.

Inoculant for D-mannitol prodn. is pref. obtd. by 20 hrs culture of Candida lipolytica ATCC No. 20297 in an aq. nutrient medium at 28° C. Sweet-tasting D-mannitol is used as extender for chewable tablets, e.g. vitamin or aspirin tablets and in prodn. of resins and plasticisers. 10. 2. 72 as 014058 (clg. 18. 2. 71-US-116670) C12d-13/04 (16. 7. 79) PFIZER INC (4pp) (J4 7019093)

DAUC ★ D16 59223B/32 ★J7 9019-475

Antibiotic samarosporin prodn. - by incubating suitable strain of genus samarospora, and isolating required prod.

DAIICHI PHARM KK 04.04.66-JA-021086

B04 (16.07.79) C12d-09/04

Process comprises (a) incubating a suitable strain of genus Samarospora in a culture medium, and (b) isolating Samarosporin from the cultured broth. A suitable strain is Samarospora japonica (FERM-P No. 224). 4. 4. 66 as 021086 C12d-9/04 (16. 7. 79) DAIICHI PHARM. KK (7pp68)

ASAM- D16 ✓ 57626A/32 =J7 9019-478

Alcoholic liquor prepn. from sake and plum juice - by mixing liq. glucose isomerised sugar with alcohol and sucrose, adding pectinase, immersing plums and combining with sake

ASAMA SHUZO KK 16.12.76-JA-150371

*(16.07.79) *J53075-392 C12g-03/04 +A231-02/04*

The method comprises mixing liq. glucose isomerise sugar with alcohol and sucrose, adding pectinase, immersing plums and combining the obtd. plum juice 5-100 pt. vol. to 100 pt. vol. 'sake'.

Plums can be extracted efficiently in a short time with the liq. sugar mixt. and plum juice excellent in taste and flavour can be obtd. By extracting plums in the presence of pectinase obtd. liquor hardly ever becomes turbid. 16. 12. 76 as 150371 C12g-3/04, A231-2/04 (16. 7. 79) ASAMA SHUZO KK (8pp) (J5 3075392)

HEAT= ★ D16 59324B/32 ★SU -629-424

Thermally sensitive material dryer - has gas distribution grid and wick made as flexible threads

HEAT MASS TRANSFER 11.05.77-SU-485186

Q76 (23.09.78) F26b-05/16 F26b-17/10

The dryer can be used for thermally sensitive material, e.g. microbiological pastes, and dryer contains a fluidised bed chamber with a gas distribution grid and capillary porous wick.

In order to intensify the drying process and to prevent grid blocking, the wick is made as flexible threads attached at one end to the grid. The other end of the threads is connected to the chamber upper covering. The grid is covered by a thread like layer which is submerged in the fluidised material layer. The fluidised layer is made homogeneous due to the flexible threads.

Kuts, P.S., Karpov, A.M., Bogdanov, V.M. et al. Bul. 39/25. 10. 78. 11. 5. 77 as 485186 (2pp110)

POPI= ★ D16 59351B/32 ★SU -629-500

Determn. of trans-ketolase activity in boar sperm - using buffer soln. contg. hydrazine-sulphate and magnesium chloride solns.

POLT PIG FARMING 27.01.77-SU-447674

B07 C03 J04 R16 (19.09.78) G01n-31/14

Trans-ketolase activity in biological fluids, e.g. bore's sperm, determination includes treating test material with compsn. contg. tris-HCl buffer, sodium salt of riboso-5-phosphate followed by incubation and addn. of trichloroacetic acid to terminate the reaction.

The activity of the enzyme is then evaluated by the increase in phosphotriose and heptatriose and the redn. in the pentose amts. in the resulting mixt.

The accuracy of determination is increased. The compsn. prior to the addn. of test material is treated with 0.25 ml. 0.16 M hydrazine-sulphate soln. and 0.02 ml. 0.M magnesium chloride soln.

Kurilo Yu.G. Bul. 39/25.10.78 27.1.77 as 447674 (2pp938)

FERM= ★ D16 59529B/32 ★SU -630-287

Alcoholic fermentation of starch-contg. base - includes sepn. of gas and liquid phases during a secondary fermentation stage for recirculation

FERMENT PRODUCT RES 15.05.77-SU-497963

(13.09.78) C12c-11/08

Starch-contg. base is fermented by a process comprising (a) supplying nutrient medium and a yeast seed culture to a fermenter, (b) fermenting the mixt. in the presence of fermentation gasses for 40-48 hrs., (c) drawing off from the fermenter a gas-liquid emulsion contg. 1-2% dry wt. solids, (d) separating the emulsion into gas and liquid phases during a secondary fermentation stage, and (e)drawing off gas-liquid emulsion for every successive secondary fermentation stage and supplying it to the liquid layer from the preceding stage, maintaining the liquid level above the level of the liquid phase in the fermenter.

The method enables the entire fermentation to be carried out in sterile conditions and minimises prod. losses.

Yarovenko, V.L., Kodin, G.S., Yarovenko, V.V. Bul. 40/30.10.78. 15.5.77 as 497963 (2pp314)

MOMA= ★ D16 59530B/32 ★SU -630-290

Alcohol aperitif-type drink - contg. dry wine, brandy, rectified spirit, aq. alcohol grade pressings extract and fortified wine

MOSC MAGARACH WINE 30.06.77-SU-502375

(12.09.78) C12g-03/06

An alcohol aperitif drink ('Kulon') comprises (by vol.): 0.2-51.5% dry wine, 10.0-11.0% cognac, 3.3-20.9% alcohol-rectificate, 3.0-5.0% of an aq. alcoholic extract of a grape residue and the balance fortified wine.

The presence of the latter two components improves the organoleptic props. of the drink.

Birzha, I.Sh., Lipovich, L.M., Mekhuzla, N.A. et al. Bul. 40/30.10.78. 30.6.77 as 502375 (2pp314)

TIFL= ★ D16 59531B/32 ★SU -630-291

Prodn. of brandy-type spirit - including use of caramelised conc. fruit juice as colouring agent

TIFLIS BRANDY COMB 20.06.77-SU-499081

(12.09.78) C12g-03/12 C12h-01/22

Brandy-type spirit is made by (a) blending brandy spirit with distilled water, a sugar syrup and a colouring agent comprising a caramelised concd. fruit juice (I), (b) ageing the blend for 4-5 days, (c) separating from the sediment, (d) allowing to rest and (e) filtering and bottling.

Use of (I) produces a good quality prod. and prod. losses during the process are minimised.

(I) is obtd. by caramelising fruit juice with sugar to a dark cherry colour of density 1.25-1.32° and contg. 20-30% residual sugar.

Gvelesiani, K.Sh., Robakidze, O.D., Eliozishvili, D.A. Bul. 40/30.10.78. 20.6.77 as 499081 (2pp314)

MOFO= ★ D16 59532B/32 ★SU -630-292

Brandy-type spirit prodn. - includes treating oak shavings in spirit in UHF electromagnetic cyclic field with intermediate cooling

MOSC FOOD IND TECH 23.06.77-SU-498907

(12.09.78) C12h-01/22

Tannins are recovered from oak for the prodn. of fortified drinks by subjecting a mixt. of oak wood and brandy-spirit to a cyclical treatment at 25°-45°C. with a UHF electromagnetic field of 2175-2575 MHz for 600-700 secs. and

Gubiev, Yu.K., Uzikov, A.N., Ivanov, V.V. et al
40/30.10.78. 23.6.77 as 498907 (2pp314)

FOOD= ★ D16 59635B/32 ★SU

**Peptide spectrophotometric determination in beverage
includes removal of protein(s) and polyphenol(s) prior to
methyl glyoxal, used in food preserving and wine and spiri**

FOOD IND EXTRAMURAL 13.06.77-SU-536603

J04 R16 (D14) (07.09.78) G01n-33/02

It describes a method offering the advantage of a si
rapid and an accurate determn. of peptides in beve
The method is a modification of one in the current
-ed on the addn. of methyl glyoxyl (I) to a sample a
spectrophotometric analysis of the reaction prods.
modified method features removal of proteins and
phenols from a sample prior to addn. of (I). This
ieved by adding 0.5-1.5 ml. of 1N NaOH soln. and
cipitating the proteins and the polyphenols with a ba
satd. lead acetate soln. in the amt. of 1-5 ml. per
of a beverage sample, followed by filtration and me
ment of the optical density of the filtrate.

Avakyants, S.P. Bul. 40/30.10.78. 13.6.77 as 536
(2pp48)

WINE- ★ D16 59678B/32 ★US 4

**Wine breather - has coupling between two containers with
air inlet, and is oscillatable by motor to pour wine**

WINE BREATHER INC 29.08.77-US-828536

(24.07.79) B01f-11 B01f-13/02

A wine breather for aerating wine comprises a stan
a coupler removably connecting two wine containers
with a passage for flowing wine back and forth betw
containers and a valve allowing air into the wine wh
venting spillage. The coupler is connected to a mot
oscillate it so that wine is poured through the passa

The valve has an air inlet tube with a ball to pre
splashing of wine, and two air outlet tubes connecte
the inlet tube and each with a seat for the ball to blo
outlet tube which extends into the container into whi
is being poured. The motor speed, and thus the de
aeration, is pref. controllable. 29.8.77 as 828536

AIRP D16 14434B/08 =US 4

**Biomass with high phosphorus and nitrogen content - for
fertiliser, animal feedstuff and as high-energy biomass
fermentation industry**

AIR PRODUCTS & CHEM INC 25.07.77-US-818786 (12.04
676266)

*C03 (C04 D13) (24.07.79) *DT2827-474 +C02c-01/06*

An improved high nitrogen-, and phophorus content
mass is prepd. contg.$\geqslant$ 3.96% phosphorous, produc
the operation of an activated sludge process which in
proliferation of filamentous biomass.

The biological treatment system comprises the r
of a mixed liquor contg. an activated biomass, and a
BOD-contg. influent, initially under anaerobic condi
and then under oxic conditions. The treated materia
then sepd. into a supernatant liq. in which the BOD
depleted, and a dense, activated biomass. A portio
the biomass is used to form the mixed liquor for the
initial anaerobic treatment; the remainder being rec
as the prod.

The living biomass prod. can be used in the ferm
ation industries, or further processed for use as a f
liser or a nutrient in animal feeds. 25.7.77 as 81
C.i.p. 4056465 (10pp931).

RESE- ★ D16 59703B/32 ★US 41

**Purificn. of hepatitis B surface antigen from blood plasma or s
by passage through anion then cation exchanger**

JURIDICAL FOUNDATIO 28.09.78-US-946733

B04 (24.07.79) A61k-39/12

Hepatitis B surface antigen (I) is purified in a soln.
from blood plasma or serum by passage through an
exchanger, followed by passage of the effluent throu
cation exchanger.

(I) is obtd. in highly purified form for use in prep
a safe and stable vaccine for preventing viral hepati

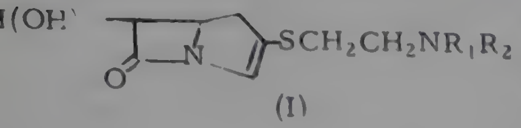
D16 18387B/10 =US 4162-193

ycin prepn. from an N-acyl or N-di:acyl deriv. - by
at with penicillin amidohydrolase

K & CO INC 19.08.77-US-825883

*(24.07.79) *EP-----931 +C12d-13/06*

nycin, of formula (I)


(I)

(where R_1 and R_2 are both H) is prepd. by contacting a cpd. (I: R_1 and R_2 are H or acyl, but are not
with a penicillin amidohydrolase (II) to remove the
dical.

acyl radical is e.g. phenylacetyl, iso-butoxyacetyl,
d (II) is EC. 3. 5. 1. 11 from Escherichia coli,
B. 8743; The prod. is an antibiotic. 19. 8. 77 as
(4pp976).

D16 59735Y/34 =US 4162-194

of alpha and beta amylase in body fluids - involves
on rate determn. of a reduced coenzyme (NL 16.8.77)

MAN INSTRUMENTS INC 11.01.77-US-758518 (13.02.76-
57976)

*J04 R16 (24.07.79) *DT2705-857 G01n-31/14 G01n-33/16*

ent for an acid phosphatase assay comprises (I)
e, (II) organic phosphate, (III) maltose phosphory-
IV) a co-enzyme, (V) glucose-6-phosphate dehydro-
, (VI) beta-D-phosphoglucomutase and (VII) a non-
ate contg. buffer of pH 4-5-6. (I) - (VI) are pre-
ich that the acid phosphatase to be assayed is rate-
g.

is beta-glycerophosphate, phenolphosphate, p-
henol phosphate, alpha-nitrophenol phosphate,
ine-3'-monophosphate, thymolphthalein monophos-
or phenolphthalein monophosphate. (IV) is beta-
mide adenine dinucleotide (phosphate).

e assays can be determined quickly, simply, reliably
th reproducible results. 12. 12. 77 as 859411 Div. ex
6 C. i. p. 4036697 (+11. 1. 77 - US - 758518) (7pp976).

★ D16 59704B/32 ★US 4162-196

r collar for fastening laboratory jar to housing - where the
and housing door define an air lock, esp. for transfer of
bic organisms to and from appts.

APPLI CO 24.11.76-US-744611

4.07.79) C12k-01/10

rangement for fastening a laboratory jar to an incu-
housing for transfer of anaerobes to the housing,
ises a first door carried by a frame sealed around
ning in the housing, a collar carried by the mouth of
r, and a second door in the collar. The two doors
an air lock between when the collar is secured to
ame. An inlet is provided in the collar to facilitate
eding of gas into the jar.

e arrangement is light and the ingress of air during
er is prevented. 24. 11. 76 as 744611 (6pp525).

D16 81450Y/46 =US 4162-282

n liquid coated microdroplets prodn. - by continuous
ance esp. vibration of two liquid stream emerging from

ULTER ELECTRONICS INC 22.04.76-US-679241

*7 J04 K05 (24.07.79) *DT2717-097 B01j-13 +B29c-23 C09k-
G21c-19/44 G21c-21*

rmly sized particles of a dispersed material are
ed in core and/or sheath liq. by feeding a core liq.
n immiscible sheath liq., one or both of which con-
ispersed material(s). The liquids are then formed
jet which is periodically disturbed to form droplets
. a uniform amt. of core and sheath liqs. and dis-
d material. The droplets can be collected in a catch
which is stirred until a uniform particle is formed.
e process is used e.g. for forming uniform plastic
cles having known and controllable physical and opti-
roperties for instruments used in biological cell
sis. 22. 4. 76 as 679241 (6pp976).

BEEC D16 72175X/39 =US 4162-30

Antibiotic MM 17880 from streptomyces olivaceus - active again gram positive and negative bacteria, synergistic with ampicillin ar amoxycillin

BEECHAM GROUP LTD 15.03.75-GB-010914

*B04 (24.07.79) *BE-839-324 A61k-35*

A pharmaceutical compsn. for treating bacterial infectio in humans and animals comprises a dibasic salt of MM 17880, which is $\geq$ 75% pure, and a carrier. MM17880 is a diacid solid of formula $C_{11-14}H_{18-25}O_{8-11}N_2S_2$.

Characteristic IR, NMR and UV spectra are given for MM 17880 as pure di-Na salt. Also, as the pure di-Na salt, MM 17880 possesses antibacterial activity against strains of e.g. Bacillus subtilis, Enterobacter cloacae, Escherichia coli, Klebsiella aerogenes, Priteus mirabili Salmonella typhimurium, Serratia marcesceus and staphylococcus aureus; and, when mixed with ampicillin or amorycillin, it synergises their antibacterial activity against e.g. S. aureus and K. aerogenes. MM 17880 is obtd. by cultivation of strains of Streptomyces olivaceus. 22. 9. 76 as 725677 (+8. 3. 76, 23. 8. 76 - US - 664917, 716953) (9pp992).

ABBO D16 86690A/48 =US 4162-30

Antibiotic XK-99 - with broad spectrum antibacterial and antitumou activity

ABBOTT LABORATORIES (KYOW) 31.03.77-JA-035215

*B04 (24.07.79) *J53121-701 +A61k-35*

Novel antibacterial cpd., XK-99, is characterised by (a) a mol. wt. of 390, (b) m. pt. ~ 250 °C (decomposition), (c) $(a)_{o}^{24}$ = -360° (C = 0. 1, methanol), (d) an elemental analysis of 58. 24%C, 4. 57% H and 9. 89% N, characteristic UV and IR spectra are given.

XK-99 is produced by culturing a microorganism Micromonospora melanosporea subsp. komaensis NRRL 11, 100 in a nutrient medium. Pref. culturing is at 25-40 C at a neutral pH for 4-7 days.

The cpd. is, however, toxic and so is used as a topical antibacterial agent for cleaning and sterilising laboratory glassware and surgical instruments and may also be used with soaps, detergents, etc. for sanitation purposes. 29. 3. 78 as 891263 (8pp992).

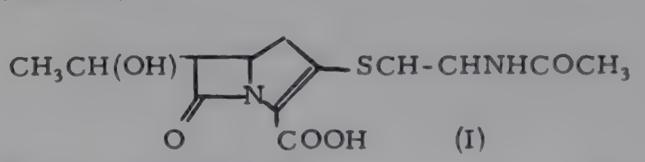
MERI D16 76857A/43 =US 4162-323

Antibacterial antibiotic (N)-acetyl-dehydro-thienamycin - prepd. by cultivation of Streptomyces cattleya BE 17.10.78)

MERCK & CO INC 18.04.77-US-788491

*B02 C02 (24.07.79) *DT2816-608 A61k-31/40 C07d-487/04*

N-acetyl-dehydro-thienamycin of formula (I) and salts are claimed.


(I)

The cpd. has 300 MHz NMR characteristic signals having chemical shifts in ppm as 1. 29 (d, J=6, CH_3); 2. 08 (S, CH_3CO); 3. 1 (d, d, J = 12. 5, 8. 7, 1H of CH_2C; 3. 21 (d, d, J = 12. 5, 9. 5, 1H of CH_2C; 3. 39 (d, d, J = 6, 2. 5, H_6); 4. 22 (m, H_5 and H_7); 6. 07 (d, J = 13. 5, HC =); 7. 19 (d, J =13. 5, HC =).

Compsns. comprising (I) and a carrier are claimed. (I) is an antibacterial, active against Gram-positive and Gram-negative bacteria. (I) is obtd. by growing a species of Streptomyces in suitable fermentation media. 18. 4. 77 as 788491 (8pp992).

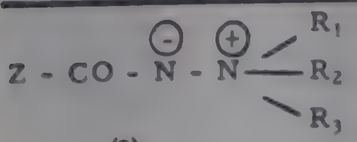
UYFL- D16 04627A/03 =US 4162-355

Amino-imide copolymers contg. halomethyl gps. - for affinity chromatography, esp. of enzymes, after introduction of ligands

UNIV FLORIDA 30.06.76-US-701410

*A89 B04 J01 (A18) (24.07.79) *DT2728-214 C08f-214/02 +C08f-04/04 C08f-14/02 C08f-20/52*

A polymer for use in affinity chromatography, comprises an addn. copolymer of (1) $\geq$ 1 aminimide of formula (I), where R_1 and R_2 are each lower alkyl; R_3 is an organic gp; and Z is the residue of a



$Z-CO-\overset{\ominus}{N}-\overset{\oplus}{N}(R_1)(R_2)(R_3)$

(I)

polymerisable vinyl cpd.; and (2) a vinyl cpd. having ≥1 pendant prim. halomethyl gp.

Polymer is used as absorbent in affinity chromatography, for research involving biological materials, and for coating substrates. 30.6.76 as 701410 (9pp997).

See Also

D13 DS 2219063 D15 GB 1549884 D21 DT 28040
D21 DT 2804138 D22 US 4162324

D17: SUGAR; STARCH

KAOS D17 60270V/34 =DS 2404-757
Copper chromium oxide hydrogenation catalysts - for coconut oil, tallow and related esters
KAO SOAP KK 02.02.73-JA-013471
*J04 (02.08.79) *DT2404-757 B01j-23/86*

A Cu-Cr catalyst is prepd. by dissolving 0.5-3 mol. CrO_3 in water, adding 1 mol. CuO to the aq. soln. obtd. and then adding a reducing agent quantity corresponding to 0.1-1 mol. HCHO. The reducing agent is a cpd. which can be oxidised to CO_2 and water and causes the reduction of the Cr^{6+} of the unreacted CrO_3 to Cr^{3+}. After adding 0.9-8 mol NH_3, the reaction mixt. obtd. is evaporated to dryness and calcined 10 min. to 3 hrs. at 250-650 °C.

The catalyst can be used in the high pressure hydrogenation of coconut oil, beef tallow or their Me esters; has high activity, causes no environmental pollution in use, is easily filtered, causes no discolouration of the higher alcohols obtd. and does not corrode high pressure plant used. 1.2.74 as 404757 (4pp200)

KNAU/ ★ D17 58225B/32 ★DT 2803-465
Pulp prodn. from plant fibre raw materials - by hydrolysis to extract hemi-cellulose before decomposition with solvent and lignin dissolution
KNAUTH H 27.01.78-DT-803465
F09 (02.08.79) C13k-13 D21c-03/20

In pulp prodn. by vegetable fibre raw material decomposition with organic solvents, the hemi-celluloses and other extractable raw materials are extracted during a pretreatment step, so that in subsequent decomposition with organic solvent, the waste liquor contains, almost exclusively, dissolved lignin.

Pulp quality- and sugar yields are high. All raw materials can be used. Preliminiary separation of sugar components and acids allows the use of high-boiling solvents for decomposition. Process pressure and hazards are smaller. 27.1.78 as 803465(9pp200)

TUBE- ★ D17 58453B/32 ★EP ---3-390
Stirring and dispensing device - comprising a tube filled with the material to be dispensed and having an easily breakable seal at one end
TUBESTIRS LTD 13.04.78-GB-014488 (04.01.78-GB-000252)
A92 Q34 (A17) (08.08.79) B65d-81/36

D/S: E(BE,CH,DT,FR,IT,LU,NL,SW).

A device for dispensing an ingredient into a liquid an
stirring the liquid comprises a hollow tube filled wit
ingredient, the tube being sealed at both ends. At lea
one of the seals can be popped open under finger pres
ure to release the ingredient into the liquid, after wh
stirring is effected using the now empty tube.

The tube is of plastics pref. polypropylene, the po
able seal being made by punching the end shut under
and pressure insufficient to form a permanent seal.

A dispensing and stirring device all in one. Quote
materials suitable for dispensing are sugar (claimed
in rod or granular form, pigments, and medicinal co
pounds such as headache powders.

4.1.79 as 300011 (11pp525).
(E) ISR: US3601252; GB1180787; FR1404322; BE-7497

CORP D17 17715A/10 =GB 155
Sepg. wheat starch and wheat gluten using alpha-amylase
solubilise starch without protein denaturation
CPC INTERNATIONAL INC 01.11.76-US-737248
*(08.08.79) *BE-860-225 A21d-06*

A mixt. of vital wheat gluten and wheat starch contg.
protein is treated in order to separate out the vital gl
and obtain as a second prod. a solubilised starch.

The treatment comprises subjecting the mixt., in
medium, to the action of a bacterial alpha-amylase,
is free of protease, under conditions where a substan
amt. of starch is solubilised without undergoing gelat
tion. The temp. of solubilisation is 45-80 °C. and the
of the aq. medium is 5-7. Time of treatment ≯ 6 hrs.
er the treatment, the vital gluten is separated from t
solubilised starch.

The treatment is esp. used on wheat flour to obtain
wheat gluten in vital, undenatured form, and a solubil
starch as a second prod. which may be used as it is
further treated by saccarification. 28.10.77 as 04506
(9pp931)

D18: SKINS; HIDES; LEATHER; TOBACCO

ROHL/ ★ D18 58138B/32 ★DL -135-735
Rigid or soft pig skin leather prodn. - by pre-chroming, hot after-chroming, dyeing, liquoring tanning with synthetic and plant materials
ROHL A 07.04.78-DL-204651
A97 (23.05.79) C14c-03/06

Pigskin mfr. comprises (1) pre-chrming followed by hot
after-chroming, (2) cold-dyeing and cold fat-liquoring in

is pref. fulled into the after-tanned leather surface by
combination of wax paste, aq. polyacrylate and aq. pol
urethane.

The prod. is used as grained clothing-, fancy good
bag- and split-leather, and can be used in the mfr. of
rigid or soft articles. Process reduces energy- and
er-consumption. Quality is high. 7.4.78 as 204651 (7p

D18 59961X/32 =DS 2502-563
g and dyeing hides and pelts - in a two phase system
ter immiscible solvent and aq. dye soln.
FAB PFERSEE GMBH 23.01.75-DT-502563
*02.08.79) *DT2502-563 + C14c-05 D06p-03/30*
ing, subsequent dyeing and opt. re-dubbing of tann
s and pelts using a 2-phase system takes place by:
ment in an emulsifier- contg. bath of water-insol-
vent, by heating to 30-80°C, where wt./vol. ratio
nent material: water-insoluble solvent is 1:3 to
treatment in a bath of water-insoluble solvent,
er and a dye, dissolved or dispersed in water, at
, at pH 3-6, where wt. ratio of treatment materi-
r is 1:(0.2-1) and wt./vol. ratio of material: water
le solvent is 1:3 to 1:30; and (3) removing most
sified water by azeotropic evaporation, in the pre-
dyed material, at 20-80°C, from a bath of water-
e solvent and water, opt. contg. also a re-dubbing

solvent is then removed by centrifuging, and the
l is finally dried and finished. 23.1.75 as 502563
)

★ D18 59517B/32 ★SU -630-274
lacquer for chrome leather - contg. film forming cellulose
ethylene chloride, di:chloroethane, ethanol butanol and
hthalate
POLY 04.11.76-SU-417633
G02 (19.09.78) C08l-01/26 C09d-03/18 C14c-11
quer contains a cellulose ether, dibutyl phthalate
lorine-contg. organic solvent. The light resist-
d the adhesion of the lacquer film are improved by
s a cellulose ether the acetate of a N-alkylaryl-
xypropyl ether of cellulose and, as solvents, methy
hloride and dichloroethane. The compsn. addition-
ntains ethyl and butyl alcohols.
compsn. contains (in pts. wt.) acetate of N-alkyl-
inohydroxypropyl ether of cellulose 2.5-5.0, dibutyl
te 1.0-2.5, CH_2Cl_2 58.0-73.0, $C_2H_4Cl_2$ 20.0-35.0,
1.0-2.0, and C_4H_9OH 1.0-2.0.
itaitis, A.I., Kolodzeiskis, V.S., Yakovleva, L.I.
/30.10.78. 4.11.76 as 417633 (3pp70)

D18 59533B/32 ★SU -630-293
. for treating fur skins - contains surfactant, organo-silicon
entine and a hydrophobic solvent
SIBE TECH INST 14.03.75-SU-146022
E11 (A26) (03.10.78) C14c-09
n. for treating furs, sheepskins, etc. comprises (by
wt.): 70-90% hydrophobic solvent, 1-10% surfactant, 1-15% organo Si cpd. (I), pref. a polyethylsiloxane liq., and 5-20% turpentine.

Incorporation of (I) improves the quality of the treated prod. and improves the working conditions, e.g. reduces odour, etc. Prefd. hydrophobic solvents are gasoline, kerosine and white spirit and prefd. surfactants are OP-1C and 'prevocell'.

Dumnov, V.S., Kisloshchaev, I.A., Rzheneva, V.I. et al Bul. 40/30.10.78. 14.3.75 as 146022 (2pp314)

ULEA= ★ D18 59534B/32 ★SU -630-294
Hides liquid finishing treatment drum - has shelves with variable width flanges narrowing from bottom to centre to promote fluid circulation
UKR LEATHER SHOE 08.10.75-SU-179223
(03.10.78) C14c-15

The treatment of hides or leather is ensured by variable width flanges of flight decreasing from the bottom of the cylinder to the centre. This promotes the shift of the treated material laying on the flange in all levels of the fluid.

After the loading of the hide and following the fill of working fluid, the drum is rotated with two pockets formed between the flight, variable height base and inner surface of the drum. The variable width slots promote fluid entry into the pockets from two sides.

Melnikov, V.M., Ponomarev, S.G. Bul. 40/30.10.78. 8.10.75 as 179223 (2pp89)

AMBS ★ D18 59655B/32 ★US 4161-953
Puffing tobacco, esp. lamina tissue - by adding restricted amt. of hot water, then freeze drying
AMERICAN BRANDS INC 06.06.78-US-913246 (27.05.70-US-040726)
P15 (24.07.79) A24b-03/18

Tobacco is puffed by (a) mixing it with just as much hot water, at ≥70°C, as the tobacco will absorb within a period of ≤5 minutes and (b) evaporatively freeze-drying the puffed tobacco under subatmospheric pressure.

The process can treat tobacco leaf. The prod. retains its original curl, and does not have a tacky layer of extractives on the surface. 6.6.78 as 913246 (+5.11.75, 22.11.76 - US - 628912, 744042) (3pp955).

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

OREA ★ D21 58011B/32 ★BE -873-865
Conserving aq. dispersions of liposome microcapsules - by freeze-drying to form paste or solid which can be rehydrated prior to use
L'OREAL SA 02.02.78-FR-002927
A96 B04 P33 (D22) (01.08.79) A61j B01j

Conservation of aq. dispersions of liposomes comprising organised molecular layers between which is encapsulated an aq. phase contg. ⩾ 1 active substances, the layers comprising ⩾ 1 lipids of formula X-Y (where Y is lipophilic gp and X is (non)ionic hydrophilic gp) the spherules having a dia. of 100-50000 A°, comprises (a) preparing an aq. dispersion and (b) freeze-drying to give a paste or solid, shortly before use the paste or solid is rehydrated to regenerate the original compsn.

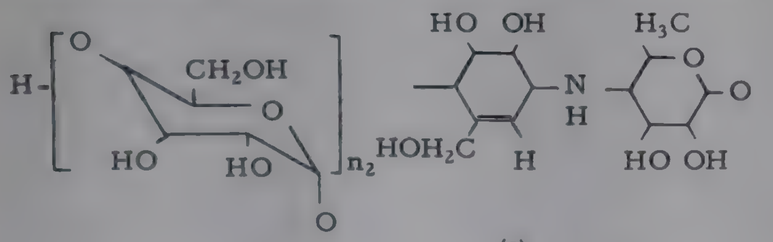
The prepns. may be stored for long periods without changing the permeability of the liposomes. Useful for compsns. contg. skin and scalp-treating agents, water-soluble sunscreen agents, deodorants, astringents, perfumes, water-soluble dyes, decolourizing oxidizers, vitamins, hormones, vaccines, bactericides etc. 1.2.79 as 873865 (17pp288)

EISA D21 18525T/12 =DS 2144-249
Vitaminised cosmetic cream - stabilised by addition of vitamin-e nico
EISAI KK 04.09.70-JA-078043
*B02 (02.08.79) *DT2144-249 A61k-07*

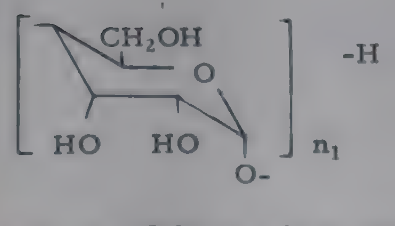
Emulsified cosmetics, e.g. skin creams and lotions, contain the nicotine ester of vitamin E, pref. in an amt. of 0.5-1.0 pts. wt. ester per 100 pts. wt. of cometic. The presence of the ester improves the appearance of the skin. 3.9.71 as 144249 (5pp068)

FARB D21 70740Y/40 =DS 2614-393
Amino sugars which inhibit glycoside hydrolases - prepd. by fermenting Actinomycetales strains and useful e.g. in diabetes treatment
BAYER AG 02.04.76-DT-614393
*B03 C02 (02.08.79) *BE-853-155 A61k-31/70 C07h-15/20*

New aminosugar derivs. of formula (I) are new:-



(I)



in which n_1 and n_2 = 1, - 7; whereby n_1+n_2 is 2-8.

(I) have amylase- or saccharase-inhibitory activity depending on the sum of n_1+n_2. Those with esp. n_1 = 2 have a high inhibitory effect on the decomposition of starch. They may be used to considerably reduce alimentary hyper- and hypoglycaemia and hyper-insulaemia. (I) may also be used to prevent or decrease caries formation in the mouth.

Prepn. involves culturing strains of Actinomycetales, esp. Actinoplanceae in known ways. Derivs. of (I) where n_1+n_2 = 2-4 may also be obtained by chemical or enzymatic hydrolysis of higher molecular derivs. 2.4.76 as 614393 (16pp279)

SUMO D21 92893X/50 =DS
Hydrogenated polyisoprene oil of low molecular wt. -
substitute for shark oil in cosmetics etc.
SUMITOMO CHEMICAL KK 05.11.75-JA-133268 (26.
063266)
*A12 E17 (A96) (02.08.79) *DT2623-718 A61k-09/06 C*
C07c-09/14 C10m-03/12

Hydrogenated low mol. wt. polyisoprene oils have
mula R^1-CH_2-CHMe-CH_2CH_2-$(CH_2CHMeCH_2CH_2)_n$-
(where R^1 is H or 1-8C alkyl; R^2 is H, Et or isopr
n is 3-12) and are prepd. by (a) polymerising isopr
a low mol. wt. polyisoprene having ⩾ 70% 1,4-con
tion in main chain and no. average mol. wt. 150-3
catalytically hydrogenating the prod. at 50-350°C,
pressure 4.9-294 bar, for 1-100 hrs. and (c) opt.
ionally distilling the hydrogenation prod.

(I) are used as lubricating oils and as oil compo
in ointments, cosmetic creams and lotions. The fr
ation prods. of (I) have a wide flow range and some
physical properties similar to those of squalane. 2
as 623718 (7pp200)

FRRR ★ D21 58290B/32 ★DT
Anticariogenic foods and pharmaceuticals - contg.
dehydrogenase and sucrose inverting enzyme esp. fructos
glucosidase (PT 24.4.79)
FERRERO OHG 31.01.78-DT-804093
B06 (D16) (02.08.79) A23g-03 A23k-01/16 A23l-01/3
00/ C13f-00/**

Anticariogenic sugar-contg. foodstuffs and pharmac
compsns. (esp. for oral and dental hygiene), both w
low H_2O content (0.1-2%), contain lactate dehydroge
(LDH) and a sucrose-inverting enzyme (pref. β-fru
dase of α-glucosidase).

The enzymes are pref. dispersed homogeneously
foodstuff or compsn. at a pH of 4-7 (esp. 4.7-5.2)
temp. of 20-50C. A suitable H acceptor (e.g. NAD)
dded to reinforce the LDH activity. The LDH concn
pref. 0.2-500 (esp. 0.5-50) mg/kg and the concn.
sucrose-inverting enzyme is pref. 0.05-5.0 g/kg.

Suitable foodstuffs include sweets, chocolates,
sweeteners and chewing gum, and also animal feeds
maceutical compsns. include oral-hygiene tablets a
dragees. 31.1.78 as 804093(25pp367)

FRRR ★ D21 58294B/32 ★DT
Anticariogenic foods and pharmaceuticals - for oral or
hygiene, contain lactate dehydrogenase (PT 24.7.79)
FERRERO OHG 31.01.78-DT-804138
B06 (D16) (02.08.79) A23g-03 A23k-01/16 A23l-01/3
00/ C13f-00/**

Anticariogenic sugar-contg. foodstuffs and pharmac
compsns. (esp. for oral and dental hygiene), both w
low H_2O content (0.1-2%), contain lactate dehydroge
(LDH).

The LDH is pref. dispersed homogeneously in the
stuff or compsn. at a pH of 4-7 and a temp. of 20-5
A suitable H acceptor (e.g. NAD) can be added to re
the LDH activity. The LDH concn. is pref. 0.2-500
0.5-50) mg/kg.

Suitable foodstuffs include sweets, chocolate, ar
sweeteners and chewing gum, and also animal feeds.
maceutical compsns. include oral-hygiene tablets an
gees. 31.1.78 as 804138(21pp367)

GCDE- ★ D21 58357B/32 ★DT
Reactive dental mixt. hardening at room temp. - contains
insoluble acid alkyl phosphate, polyvalent metal salt, opt. re
accelerator

hosphates, (I), prepd. by substituting 1 or 2 H atoms
O_4 by 3-13 alcohols, and (b) 92-8 wt.% of >1 reac-
lvalent metal salt, (II), consisting of oxides, hydro-
basic salts and silicates of alkaline earth metals,
rdening, at room temp. The mixt. may also con-
80 wt.%, w.r.t. total components, of >1 resin,
ontg. an active COOH gp., e.g. opt. modified col-
, maleic acid resins, C_2H_4-vinyl acetate copolymers
mixts. are used as fillers, temporary cements, for
fillers or crowns, materials for forming a -ve patt-
mouth cavity tissues, strengthener for correcting
irregularities and repair material for dentures.
ixt. quickly hardens at room temp. (III) can help to
rate hardening and increase prod. strength.
9 as 902713(28pp200)

★ D21 58409B/32 ★EP ---3-248
n. for bleaching hair and keratinous fibre - contg.
hate and percarbonate in powder form
MARK PROD LTD 09.11.77-NZ-185654
(08.08.79) A61k-07/13 C11d-03/39
C(BE, CH, DT, FR, GB, NL, SW).

r compsn. which may be activated with water to
hair or keratinous fibre contains a source (I) of
lphate ions, and a percarbonate (II).

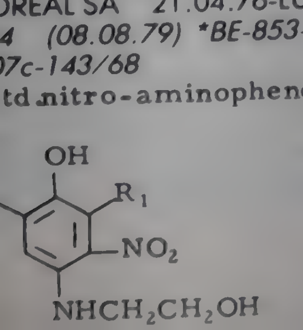
e stable, dry compsns. are capable of being wetted
m sprayable solns. which are partic. useful for the
mical spray marking of dark-haired animals (with-
e known disadvantages of conventional branding or
ng methods). Human hair may also be bleached by
mpsns.

8 as 300613 (26pp478).
R: J46043560; FR-998485; FR-940799; FR2317910;
6434; US3823231; DT2432614; FR1411692;
1807; CH-465114; 1 Journal Reference.

D21 56551B/31 =EP ---3-312
adiator for curing teeth fillings - filter coating on lamp
or focusses desired wavelengths on light conductor
E FAB PHARM PRAPARATE 23.01.78-OE-000451
*5 +P32 P34 Q71 R45 (A96) (08.08.79) *DT2901-534 A61c-*
14 +F21v-09/04 H01k-07/02
E(BE, CH, DT, FR, GB, IT, NL, SW).

ptical radiation device for hardening plastics dental
gs, provides radiation within a narrow selected
length range, which causes polymerisation of the
ics filling material. It employs a lamp which is
ally surrounded by a reflector (17), with the light
t of the lamp focussed onto the input surface of a
conductor. The reflector (17) is formed as a thin-
filter (19) in the path of the light flux which reflects
light within the selected wavelength range.
e thin-film filter (19) is carried by a support
ent (18) of transparent material, e.g. glass, and it
cts light with a wavelength in the UV range and/or
V to visible range.
e radiation hardening device is used for plastics
l fillings, with heating radiation filtered out to
nt the filling becoming hot.
79. as 100123 (20pp1167).
R: GB-923244; NL-7604504; FR 2354510; DT
01; US 3597647; DT 2607249.

D21 75874Y/43 =GB 1549-752
tro-(4)-hydroxy-ethylamino phenol and ring alkyl derivs. -
as dyes in hair dyeing compsns.
OREAL SA 21.04.76-LU-074807
*4 (08.08.79) *BE-853-733 A61k-07/13 C09b-51 +C07c-79/22*
7c-143/68
td nitro-aminophenols of formula (I) are new. In (I),



R_1 and R_2 are each H or 1-4C alkyl. A specific cpd. is 3-nitro-4-(β-hydroxyethylamino)-phenol.

(I) are prepd. by reacting chloroalkyl chloroformate with 3-nitro-4-amino-phenol opt. substd. by 1-4C alkyl in 2 and/or 6 position ... $CaCO_3$, the resulting carbamate being hydrolysed in alkaline conditions.

(I) are used for dyeing keratin fibres, partic. hair wi red tints. 20.4.77 as 016497 (15pp964)

GABA D21 06092Y/04 =GB 1550-1
Compsn. for control of gingivitis and paradontitis - contg. nonsteroid, nonaspirin antiphlogistic NL060177)
GABA AG 04.07.75-CH-008775
*B05 (08.08.79) *DT2629-884 A61k-07/16 +A61k-05/08*

Compsn.for inhibition of gingivitis and paradentosis in th oral cavity, comprises (i) ≥1 non-steroidal antiphlogisti and/or antirheumatic which does not engender aspirinoid gum irritation, and (ii) (a) a material which forms with the active ingredient a dentifrice compsn., or (b) a table forming material tabletted with (i) to form sucking tablet or (c) a flavoured liq. which acts as a solvent or dispersant medium for (i) to form a mouthwash, spray or concentrate, or (d) material which forms an orally applicabl gel with (i).

Pref. active ingredient is indomethacin. The compsn. not only prevents plaque formation but also counteracts demineralisation of the tooth surface. 2.7.76 as 027615 (7pp924)

JOHS ★ D21 58550B/32 ★GB 2013-08
Deodorant and/or antiperspirant stick compsn. - contg. amylos starch as the gelling agent
JOHNSON S C & SONS INC 26.01.78-US-872527
E33 (E32) (08.08.79) A61k-07/32

A stick compsn. contains 2.5-15 wt.% amylose, present as starch which an amylose content of 50-100%, 0.05-30 wt.% of antiperspirant astringent salts and/or a deodoran compsn., 0.1-5 wt.% of a cosmetic addn. e.g. colouring or perfume, and the balance water.

The article is applied to a surface by rubbing.The compsn. is more effective than prior art compsns. using waxes and volatile silicones instead of amulose as the gelling agent. 10.1.79 as 000886 (5pp1355)

HITK ★ D21 58649B/32 ★J5 4079-99
Low cost amorphous dental alloy - contains an alloy of e.g. nicke iron, phosphorus, boron and aluminium
HITACHI METAL KK 09.12.77-JA-147105
M26 P32 P53 (26.06.79) A61c-05/02 B22d-11/06 C23c-15

The alloy at least partially consists of a material consisting of ≥ 50% of an amorphous alloy. The amorphous alloy has excellent corrosion-resistance and suitable hardness and mechanical intensity.

The amorphous alloy is, e.g., of $Ni_{58}Pd_{30}P_{22}$ (Vickers hardness = 558, breaking stress = 146 kg/mm²), $Ni_{50}Fe_{20}P_{15}B_{10}Al5$ (Vickers hardness = 620, breaking stress = 152 kg/mm²), or $Pd_{62}Cu_{20}Si_{18}$ (Vickers hardness = 430, breaking stress = 185 kg/mm²) and is obtd. by vacuum deposition, sputtering, electroplating or electroless plating. 9.12.77 as 147105 (2pp30)

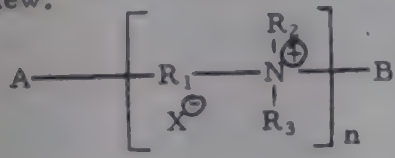
TAIH- ★ D21 58727B/32 ★J5 4080-30
Prepn. of anti-staining agent from fat or oil - by adding sodium sal of higher prim. alcohol sulphonate to compsn. obtd. from polyviny butyral and PVA
TAIHO SANGYO KK 09.12.77-JA-148591
A97 E12 (A14) (27.06.79) C11d-11

Method comprises adding a Na salt of a prim. alcohol sulphonate obtd. by sulphonating a naturally occurred higher alcohol and neutralising it with NaOH, to a transparent, viscous soln. prepd. by adding ethanol and a small amt. o water to a mixt. of polyvinyl butyral and PVA.

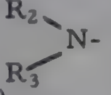
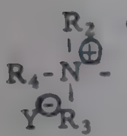
The prod. preserved as a transparent liq. which causes no precipitation. When it is coated on a nail, finger, or hand, it forms a protective film and prevents nails, finger-s, or hands for chapping. The protective films are removed readily by washing with water. It is esp. used to prevent nails etc. from being stained by a marking ink, printing ink, etc. 9.12.77 as 148591(2pp126)

NIOF ★ D21 58781B/32 ★J5 4080-399
Quat. ammonium salt polymer - useful for imparting softness and antistaticity to textiles and as hair rinse agent
NIPPON OILS & FATS KK 09.12.77-JA-147974

Quaternary ammonium salt polymers of formula (I) are new.



$$A-\left[\underset{X^{\ominus}}{R_1}-\overset{R_2}{\underset{R_3}{N^{\oplus}}}\right]_n-B \quad \text{(I)}$$

(R_1 is 2-10C alkylene; R_2 is 6-22C alkyl or alkenyl; R_3 is 1-22C alkyl or alkenyl; X is Cl, Br or I; n is 1-100; A, B are  $\overset{R_2}{\underset{R_3}{>}}N-$,  $R_4-\overset{R_2}{\underset{Y^{\ominus}\,R_3}{N^{\oplus}}}-$ or ZR_1-; R_4 is H, methyl or ethyl; Y is (in)organic acid residual grp. when R_4 = H, or Cl, Br or I when R_4= methyl or ethyl; Z is Cl, Br I or OH).

(I) is effective as textile treating agent regardless to the type of textile. (I) is effective as textile treating agent or hair rinse agent at lower concns. than those employed in the conventional prods.

(I) is prepd. e.g. by repeating tertiarisation and quaternarisation of a sec. amine havine a 6-22C alkyl grp. or alkenyl grp. and a 1-22C alkyl grp. or alkenyl grp. (e.g. laurylmethylamine, hardened beef tallow methylamine, stearylethylamine, dimyristylamine, etc.) and an α,ω-dihalogenated alkylene having a 2-10C alkylene grp. (e.g. 1,2-dichloroethane, 1,3-dichloropropane, 1,5-dibromopentane, etc.). 9.12.77 as 147974(13pp140)

KAPA ★ D21 59180B/32 ★J7 9019-120

Surface treating compsn. for prevention of tooth decay - comprises polyvinyl acetal, vinyl tri:alkoxy silane cpd. and low boiling organic solvent

KANSAI PAINT KK 18.09.75-JA-112105
A96 (12.07.79) A61k-05

A surface treating compsn. for prevention of tooth decay comprises 100 wt. pts. polyvinyl acetal such as polyvinyl formal resin, 1-50 wt. pts. vinyl trialkoxysilane system cpd. such as vinyl triethoxysilane, and low boiling organic solvent such as ethyl alcohol. 18.9.75 as 112105 A61k-5/00 (12.7.79) KANSAI PAINT KK (5pp76)(J5 2036892)

SUMO D21 92893X/50 =J7 9019-550

Hydrogenated polyisoprene oil of low molecular wt. - useful as substitute for shark oil in cosmetics etc.

SUMITOMO CHEMICAL KK 05.11.75-JA-133268
*A12 E17 (A96) (16.07.79) *DT2623-718 C10m-03/12*

Novel hydrogenated polyisoprene oils of low mol. wt. and formula
R_1-$CH_2.CH(CH_3).CH_2.CH_2$-(-$CH_2.CH(CH_3).CH_2CH_2)_n$-$R_2$
(where R_1 is H or 1-8C alkyl, R_2 is H, C_2H_5 or isopropyl and n is 1-40) are useful as replacements for mineral oils shark oil, etc. in lubricant and cosmetic applications. The oils aid skin penetration and have a wide range of flow properties. 5.11.75 as 133268 C10m-3/12 (16.7.79) SUMITOMO CHEMICAL KK (4pp) (J5 2057209)

KUWA/ D21 15864X/09 =J7 9019-852

Dental wax for profiling - contg polyethylene, rosin, bees wax, paraffin, carnauba wax and dammar

KUWABARA H 03.07.74-JA-076635
*A96 P32 +P53 (18.07.79) *J51005-305 A61c-13/08 +B22c-07*

A wax pattern for the profiling of the bound teeth is prepd. having the superior efficiency, precision, no shaving loss of noble metals, and simplicity in handling, using the novel wax compsn. 12.5 Pt. polyethylene is melted at 150-180°C 8.5 pts. rosin and 4 pts. bees wax are added and stirred, 75 pts. paraffin or 60 pts. paraffin in combination with 10 pts. carnauba wax and 5 pts. dammar, are added to the obtd. millet jelly-like homogeneous intermediate, and the mixt. is cooled to solidify.

The wax obtd. is not deformed by softening and has superior physical props. such as weather resistance, elasticity, machinability, dimensional stability etc. 17.1.76 as 076635 B22c-7/00, A61c-13/08 (18.7.79) KUWABARA H (3pp) (J5 1005305)

LIDO/ ★ D21 59382B/32 ★SU -629-931

Dental caries treatment and prevention - using ion-exchange membrane applied to tooth tissue for selective, directional diffusion

The treatment of dental caries and its prevention inc
diffusing into the dental tissue ions of the medicinal
through an ion-exchange membrane.

The directional and selective flow of ion is obtd.
ion-exchange membrane (pref. amphoteric) is impre
with medicinal compsn. and then applied to the denta
sue. The membrane is then covered with a substrat
which is inert to the diffusion of ions. The sides of
substrate and the regions where it joins the gums ar
-ed with a biological adhesive.

Lidorenko, N.S., Urusov, K.Kh., Nikitina, T.V. e
Bul. 40/30.10.78. 1.7.77 as 502387 (2pp938)

JOHJ ★ D21 59691B/32 ★US 4

**Coating gold (alloy) castings for dental bridges and crowns
gold particles dispersed in vehicle comprising organic s
stannous salt and borate salt**

JOHNSON & JOHNSON 18.01.78-US-870390
G02 M13 (24.07.79) C09d-05/38

A powder-liquid system comprises 5-16 μ gold parti
and a liquid vehicle consisting of an alkali(ne earth)
borate salt (I) and a stannous tin salt (II) in an organ
solvent (glycerine, ethylene glycol or propylene glyc
The gold is dispersed in the liquid to give a dispers
useful for coating Au(alloy) dental bridges and crown
(I) is pref. dilithium tetraborate and (II) is pref. sta
chloride.

The dispersion is easily applied to dental castings
used as bridges to prevent gasification of the Au (all
castings during bonding with porcelain. (I) wets the
ing to enhance bonding to porcelain. The tin salt for
an easily oxidisable alloy with the Au (alloy) casting.
dispersed Au particles do not settle on standing and
dispersion flows easily during painting on, and does
sag or drip when the painted casting is dried or fuse
constant viscosity dispersion is easily maintained.
18.1.78 as 870390 (3pp959).

DHPC- ★ D21 59695B/32 ★US 41

**Removing hardened zinc oxy:phosphate dental cement
instruments, skin, etc., by applying aq. or alcoholic soln. o
acid**

DHP CORP 06.02.78-US-875306 (08.02.77-US-766701)
E17 P43 (24.07.79) B08b-03/08

Cement is removed from a surface by applying to the
face for ≥ 3 mins. an effective amt. of an aq. or alco
soln. of citric acid having a concn. of ≥ 1g. citric ac
per 10 ml. of soln.

The process is highly effective for the removal of
dental cement from crowns, bridges, facings, instru
etc. while also being ideally suited for its removal f
the skin. Process eliminates drilling and manual c
ing, eliminates the need and use of strong acid or all
and is safe, mild and non-corrosive. 6.2.78 as 875
C.i.p. 4129456 (cf. 93057A/51) (3pp914).

UNIL D21 68807Y/39 =US 41

**Injecting liq. into extruded detergent - partic. for prodn. of co
toilet soap with marbled effect**

LEVER BROS CO 26.03.76-GB-012242
*(24.07.79) *BE-852-705 B29f-03/12*

Prodn. of detergent bars with a striped or marbled a
rance by injecting the detergent mass as two portion
each through a multi-apertured section, simultaneou
into a common extrusion core. Fluid of a different
is injected into each mass as it begins to enter the e
sion core.

The impregnated mass is then advanced under ext
sion pressure along opposite side surfaces of a parti
within the extrusion core to produce two separate ex
sion streams of fluid impregnated detergent mass.

The extruded mass can then be cut into billets and
stamped into the required shape. By introducing a n
aperture section the distribution of the additive mate
is made uniform. 21.3.77 as 779774 (4pp397).

See Also

D22 : BANDAGES ; DRESSINGS

D22 58164B/32 ★DL-135-815
addition to underground storage reservoirs - by mixing
de with driving medium and sump
GRAF W 14.04.78-DL-204797
03 J06 Q35 (E17) (30.05.79) B65g-05
tamination of stored fluids in underground storage
irs in saliferous formations by microorganisms is
ed by an admixture of activating reagents. The act-
are added in the case of gaseous media to the driv-
e or/and to the storage sump, and in the case of
nedia to the medium itself or/and to the driving

system keeps ethylene, helium or nitrogen of high-
and diesel fuel oil free from metabolic prods. of
rganisms which may act as catalyst poison or clog
em. The system can be applied to existing as well
w underground reservoirs. 14.4.78 as 204797(16pp)

D22 29061A/16 =DS 2744-638
e e.g. milk, package steriliser - has two stations with
vat and spray nozzle directed against heated plate (NL

A PAK INT AB 07.10.76-SW-011124
*(02.08.79) *DT2744-638 B65b-55/10*
for the sterilisation of webs of packing material
rile packages in passed through a first device contg.
lising liq. A second sterilisation device consists
rtical treatment chamber through which the web
in a descending direction. A nozzle sprays a ster-
liquid in atomised form on a baffle plate which is
to 160-250°C. Sterile air is blown at the same
an ascending stream through the treatment chamber
-controlled valve actuates the nozzle intermitten-

system produces a more even sterilisation of the
g material web than conventional plant. 4.10.77 as
(5pp39)

★ D22 58231B/32 ★DT 2803-487
iming aq. disinfectant soln. - contains quat. ammonium cpd.
nixed and heated with alkali sulphamate
JECKI U 27.01.78-DT-803487
P34 (D14) (02.08.79) A61l-13 C11d-01/62
ectant comps, present as an aq. liq., contains ≥ 1
bicidal quat. ammonium cpd. having formula
$R^4N^+X^-$ (I) (where R^1 is 8-18C alkyl; R^2 and R^3 are
lkyl, esp. Me or Et; R^3 is aryl-substd. 1-4C alkyl,
enzyl; and X is halogen) and is mixed with (b) an
sulphamate having formulaNH_2SO_3M (II) (where M
li). Mol. ratio (II) : (I) is 0.1 : 1 to 0.8 : 1 (0.3 :
6 : 1).
solns. can be used for cleaning tanks and conduits
l- and drinks industry. Treatment with (II) reduced
ng without lowering microbicidal activity. 27.1.78
487(9pp200)

★ D22 58234B/32 ★DT 2803-500
art baby's napkin - divided by plastic foil into urine and
absorbing part
TKOWSKI H D 27.01.78-DT-803500
(02.08.79) A41b-13/02
parts baby's napkin is divided in the crotch by a
skin in one front part with a greater absorptive
ontent than the rear part. The front part which
bs the urine can thus keep more urine away from
t with the baby. The rear part absorbs the faeces.
o parts are held together by a moisture absorbing
the rear.
napkin represents a hygienic advance. 27.1.78 as
)(4pp39)

HOLM/ ★ D22 58351B/32 ★DT 2902-434

Umbilical cord pre-shaping for use as blood vessel implants - takes place by placing on mandrel, extracting water, fixing with aldehyde soln. and pref. roughening

HOLMAN D G 26.01.78-US-872606 (26.01.78-US-872605)
A96 P32 (02.08.79) A61f-01

Pre-shaping of a human umbilical cord comprises : (a) rinsing and arranging on a madrel having the desired configuration; (b) immersing umbilical cord on madrels into an aq. soln. contg. >70 vol. % EtOH, pref. for $\geq$18 hour until the umbilical cord is dehydrated; and then (c) immersing in a dialdehyde soln. contg. > 1 (1.3) vol.% dialdehydic starch and/or glutaraldehyde, until configuration is fixed.

The prods. can be used as vessel replacements and/or blood vessel fistulae, e.g. for long term cannulation of blood vessels and haemo-dialysis. Rejection by body is prevented. Roughening increases tissue-growth and prevents aneurysm. 23.1.79 as 902434(11pp200)

DOWC D22 79344X/43 =GB 1549-994

Water absorbent, cross linked acrylic fibres and films - from a soln. of carboxyl contg. acrylic copolymer, and polyamido-polymine and epichlorhydrin cross linker

DOW CHEMICAL CO 07.04.75-US-565880
*A96 F07 G02 P32 +P42 P73 (A14) (08.08.79) *BE-840-443 B05d-05 B05d-77 C08l-33*

Compsn.for forming a water-swellable article comprises (a) a solvent of water and/or a lower alcohol, (b) a partially saponified acrylate polymer carboxylic polyelectrolyte which is soluble in (a); and (c) a polyamidopolyamine/epichlorohydrin adduct crosslinking agent which is reactive with carboxylate gps. and is soluble in (a). Pref. the polyelectrolyte is present in an amt. of 5-60 wt.% based on the solvent.

The prods. are used as surgical sponges, tampons, diapers, meat trays, paper towels, disposable mats, and disposable littler mats of pets. 7.4.76 as 014205 Add. to 1476958 (5pp982)

ONTA D22 50017A/28 =GB 1550-010

Surgical prosthesis or implant - contains a porous surface film for easy assimilation of bone tissue

ONTARIO RES FOUND 15.12.76-GB-052410
*M22 P32 +P53 (08.08.79) *DT2755-762 C23c-03/04 +B22f-03/10*

A solid metal prosthetic device or implant has a porous pure metal coating of $\geq 100.10^{-6}$ m. thickness and a porosity of 10 to 40%. The solid metal and porous metal are non-corrodable by body fluids. The coating is formed by decomposing a layer of particles of a compound of the pure metal, and sintering the resultant metal to produce interconnected intersitial pores which allow the growth of bone tissue into the coating.

Pref. the compound particles have a dia. of -100 to +325 mesh. The solid metal is Ti or Ti alloy and the cpd. is TiH.

The ingrowth of both soft and bone tissue is possible. 15.12.76 as 042410 (4pp1376)

COLG D22 73887Y/41 =GB 1550-056

Tape fastener for disposable diaper - using pressure sensitive strip with backing of extensible polymeric film

COLGATE PALMOLIVE CO 09.08.76-US-712612
*A96 P32 +P21 (08.08.79) *US4051-853 A41b-13/02*

Disposable nappy has a fastening tape strip carrying a pressure sensitive adhesive and made of a non-reinforced, extensible, polymeric film having, in the strip longitudinal direction an ultimate elongation >50% and an elongation of 50% under a force of 5-10 lbs. per inch width.

Pref. the film has ultimate elongation of 300-750% in the longitudinal direction and is 4-10 mils. thick. It may be made of low density polyethylene and suitably has breaking strength of 7-12 lbs./in. width in the longitudinal direction. The machine direction of the film is pref. oriented

The nappy is easily fitted on an infant without accidently ripping the tape off. 26.7.77 as 031334 (5pp945)

JOHJ D22 50063Y/28 =GB 1550-280
Surgical drape - having retainer for holding wires and tubes during an operation
JOHNSON & JOHNSON 03.03.76-US-663958
*P31 (08.08.79) *US4033-341 A61b-19/06*

A surgical drape has an elongated strip of flexible material on its upper surface to cover and retain flexible elements such as tubing on the drape. The strip is pref. hinged to the drape and is of plastics film, a woven or non-woven fabric, or a laminate of liquid absorbent material and a polymeric film.

The drape can be mfd. by forming a flap in a sheet of material, folding the flap back on itself and securing the flap to form the retaining member. Damage to disposable drapes during clamping using towel clamps is prevented. 2.3.77 as 008789 (7pp1376)

NIRA ★ D22 58650B/32 ★J5 4079-997
Antithrombotic shaped polyester article prepn. - by treating article with sec. amino gp.-contg. poly:amine, chlorinating and reacting with antithrombotic cpd. with anion gp.
UNITIKA KK 09.12.77-JA-148578
A96 P34 (A23 A35) (26.06.79) A61m-01/03 A61m-25 C08j-07/12

Anti-thrombus property is given to the surface of a polyester shaped body by treating the surface with > 1 prim. and/or sec. amino-gp.-contg. polyamine to form an aminated surface, chlorinating the aminated surface into a tetrachloride surface, and then reacting the chlorinated surface with a thrombus-resisting cpd. with anion gp.

The polyester is pref. obtd. by reacting polyalkylene terephthalate (e.g. PET or polytetramethylene terephthalate) forming component with polyalkylene glycol. The polyamine is pref. of polyethylene imine. The chlorination is carried out by using e.g. HCL or HBr aq. soln. The thrombus-resisting cpd. is pref. of heparin.

Anti-thrombus property is given to the surface of an ordinarily produced polyester material, which is used in an artificial blood vessel, kidney, heart, valve or pulmo. 9.12.77 as 148578 (5pp30)

NITL ★ D22 58789B/32 ★J5 4080-416
Preventing propagation of bacteria, fungi and insects - by means of alpha-bromo:cinnamic aldehyde vapour evolved from active cpd. enclosed in resin film bag
NITTO ELECTRIC IND KK 05.12.77-JA-146374
A92 C03 E14 (27.06.79) A01n-09/24

Method of preventing the propagation of bacteria, fungi and harmful insects by using vapour of α-bromocinnamic aldehyde, comprises enclosing the active cpd. in a bag comprising resin film in order to increase the evaporation rate. The vapour of the active cpd. is known to have fungicidal, antibiotic and insecticidal effects, but the evaporation amt. of the active cpd. after 1000 hrs. is normally only about 5 mg. However, when it is enclosed in the film bag, the evaporation amt. is more than 10 mg after 200 hrs.

The resin film is e.g. polyurethane or polyethylene film. The evaporation rate increases as the thickness of the film decreases. The active cpd. is enclosed in the bag in the form of powder of particle size, pref. 10-2000 um, esp. 50-500 μ. When the active cpd. is supported on a carrier, the effect cannot be obtd. 5.12.77 as 146374 (3pp108)

NITL ★ D22 58790B/32 ★J5 4080-417
Preventing propagation of bacteria, fungi and harmful insects - using vapour of alpha-bromo:cinnamic aldehyde which is enveloped in foamed sheet for increased evapn. velocity
NITTO ELECTRIC IND KK 05.12.77-JA-146375
A92 C03 E14 (27.06.79) A01n-09/24

The propagation of bacteria, fungi and harmful insects is prevented using the vapour of α-bromocinnamic aldehyde. The active cpd. is enveloped in a foamed sheet to increase the evapn. velocity. The amt. of active cpd. evaporated reaches 20 mg after 1000 hrs.
increases as the thickness of the sheet decreases.
consideration of the mechanical strength of the she
the thickness of the sheet is generally 0.5-5 (1-4)
The present effect cannot be obtd. when the active
supported on a carrier and then enveloped in the s
5.12.77 as 146375(4pp108)

NISY ★ D22 58793B/32 ★J5
Solid deodorant and aromatic compsn. - comprises water
organic solvent, higher fatty acid salt, PVA and aromatic c
NIPPON SYNTH CHEM IND 14.11.77-JA-137696
*P34 (27.06.79) A61l-09/**

The evaporation velocity is constant, and there is
eat difference in the aromatic strength during use.
amt. of gel is reduced at a constant velocity, so th
consumption can be seen at a glance. The surface
not harden and is not wrinkled, even if the amt. of
becomes small. During use, water and organic s
do not ooze from the gel. The gel has the good me
ical strength, and isstable to change in temp. and
ity.

The organic solvent is e.g. ethanol, ester, ket
etc; a small amt. of water must be used in order
ain the uniform miscibility with PVA, and the amt.
water in the solvent is 5-100 wt.%, the higher fatt
salt solidifies the solvent, and is e.g. sodium or p
ium salt of stearic ac,d palmitic acid, oleic acid,
in an amt. of 1-10 wt.% of solvent. The PVA mak
surface porous and the evaporation velocity consta
The amt. of PVA is 10-400 wt.% of the acid salt.
14.11.77 as 137696(5pp108)

MITQ ★ D22 58889B/32 ★J5
Deodorising and purifying waste combustion gas contg.
oxide(s - without reducing agent, includes oxidn. by ozone
MITSUBISHI ELECTRIC CORP 13.12.77-JA-149591
E36 J01 (28.06.79) B01d-53/34

Combustion exhaust gas contg. nitrogen oxides is i
ced from a conduit connected to a boiler burning fu
through a duct into an ozone reactor and a residual
treating tower. A chemical liq. such as sodium hy
rite is supplied from a chemical liq. tank through
into the ozone reactor. The treated exhaust gas c
non-reacted or residual ozone is introduced from t
ne tower into the treating tower, so that the residu
and the nitrogen oxides may be removed from the e
gas and the latter discharged as a clean gas from a
ney to the atmos.

This plant is simple and economical. The treat
is efficiently deodorised to prevent air collution. 1
as 149591(3pp35)

MITQ ★ D22 58893B/32 ★J5
Gas deodorisation plant - comprising a prim. purifying tow
sample purifying tower, giving improved response
MITSUBISHI ELECTRIC CORP 13.12.77-JA-149592
J01 (28.06.79) B01d-53/14

An offensively smelling gas is introduced through a
into a prim. purifying tower and a sample purifyin
which is disposed parallel to the primary purifying
so that it is simultaneously purified and deodorised
two towers. The concn. of the chemical liq. in the
le purifying tower is detected by a detector and a
al liq. injecting pump is automatically controlled t
a regulator with the detected signal.

This plant permits for the presponse and the pre
to be considerably improved in the chemical injecti
trol system, so that the chemical liq. in the tower
may be always maintained at the constant conc. to
ise the offensive smell gas efficiently and stably. 1
as 149592 (3pp35)

KATS- ★ D22 58962B/32 ★J5
Solid deodorant cleaning cpd. for flush toilet - contains e
alkylene glycol or polyoxyethylene alkylether, and surfac
and perfume s)
KATSURAYA FINE GOOD 13.12.77-JA-148803

t, a dye, and 1-30 wt.% perfume composed of a
ydrocarbon without double bond or with randomly
ed double bonds, e.g., limonene, menthol, dipen-
orneol, camphene, pinene, geraniol, etc., or a
ation of these perfumes.
is capable not only of deodorising the offensive
f toilet but also of cleaning the water tank of flush
made of ABS resin, etc., without causing any dama
he water tank, e.g. deformation, deterioration,

ganic cleaning aid, water-sol. glue, deodorant, me
sking agent, a steriliser, etc., may be added to the
.12.77 as 148803(4pp117)

D22 59168B/32 ★J5 4082-500

**fibre with bactericidal activity - comprises animal or
le natural fibres coated with bactericidal fine particles of
nd/or metal oxide**
UI MINING & SMELTING 13.12.77-JA-149744
(30.06.79) D06m-11

fibre consists of animal or vegetable natural fibre
ry fine particles of bactericidal metal and/or metal
which are allowed to adherer on the fibres. The
es are non-irritant to the skin.
special fibre is prepd., e.g. by impregnating fibre
e prod. with soln. contg. a desired amt. of a metal
d then reducing the metal salt to metal by dipping in
reducing soln., e.g. hydrazine or formalin. The
used include fibre and fibre prod., e.g. raw fibre,
ven cloth, paper, etc. To increase coverage, the
r fibre prod. may be deaerated under vacuum before
gnation or may be pressurised on impregnation.
77 as 149744 (3pp90)

D22 50265U/35 =J7 9019-444

**arbamic acid derivs - as water sol bactericides ,nematocides
ngicides**
KMAN LABS INC 24.04.72-US-246961
*C03 (16.07.79) *BE-796-216 A01n-09/12 C07c-155/06*

of unknown constitution are prepd. by reacting a
alkylaldehyde, NH_3, a 1-5C monoalkylamine or a
2-4C alkylenediamine with an alkali (ne earth)metal
carbamate a 1-5C monoalkyl dithiocarbamate or a
alkylenebisdithiocarbamate and opt. forming the Mn,
, Cu or Zn salt.
e compsns. formed are known to include salts of N-
N'-hydroxymethyl and N,N'-bishydroxymethyl N,N'-
ene bisdithiocarbamate. Thus a bactericidal compsn.
epd. by reacting equimolar quantities of K,N methyl
carbamate, HCHO and $MeNH_2$. 6. 4. 73 as 038849
24. 2. 72-US-246961) A01n-9/12, C07c-155/06
. 79) BUCKMAN LABS. INC (9pp) (J4 9014625)

= ★ D22 59381B/32 ★SU -629-929

**and microbiological steriliser - has body with lockable cover
hich sample containers are inserted, to be subjected to action
am**
USSR MICROB BIOP 29.06.77-SU-502354
(05.10.78) A61l-03

liser for research in the microbiological and food
, comprises a chamber, cover with lock, device for
nging the objects, and heating element. Sterilisation
tiveness is increased during the processing of sample
iners with valves, by ensuring that the valves are
natically closed, during the concluding stages of the
lisation, by locating the device for arranging the ob-
in the upper part of the chamber, directly underneath
over and provided with a projection. The lock con-
of catches fastened to the cover and an arm which en
es with the projection, with raising handle and drive,
e as a solenoid. The lower part of the arm is connect-
the solenoid by means of a rod.
Redikultsev, Yu. V., Shkidchenko, A.N., Zanin, Yu.G. et al. Bul. 40/30.10.78. 29.6.77 as 502354 (2pp29)

BATT D22 53882A/30 =US 4161-94

**Laminated wound dressing resembling natural skin - of tw
synthetic polypeptide(s) having differing porosities, the inner laye
of which dressing is resorbable to avoid periodic changes**
BATTELLE MEMORIAL I 18.01.77-CH-000576
*A96 P34 +P32 P73 (24.07.79) *DT2802-295 A61f-13*

A synthetic membrane or skin is prepd. contg. polyamino
acids usable for wound-dressings contg. 2 integral layers
≥1 layer being resorbable by the body.

The first internal layer is directly applied to the wound and the second layer constitutes an external protection. The second layer is formed from a porous semi-permeable membrane or film having an asymmetric structure, having pores of decreasing size when going from the inside to the outside layer. This structure ensures the free penetration of air, water and low mol. wt. substances, but prevents the entrance of external pathogenic germs. The first layer is formed of a hydrophilic, non-toxic, biodegradable membrane or tissue consisting of a pluricellular, spongy and fluid permeable material which is a polymer or copolymer of alpha-amino acids or their ester

This prod. has the property of improving the healing capacity of the living tissues. 16.1.78 as 869688 (7pp931)

CIEN- ★ D22 59753B/32 ★US 4162-28

**Filter for corpse decomposition gases - with successive
compartments removing particles, amine(s), sulphur cpds. and
odours**
INT CIENCIA Y TECNO 25.02.77-US-772046
J01 Q46 (24.07.79) B01d-53/04 B01j-08/04 E04h-13

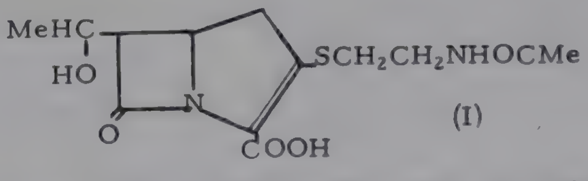
The filter comprises an elongate container with perforate inlet and sealed opposite end, and an exit duct through the inlet and reaching almost to the sealed end. Three diametral separators around the duct form compartments holding porous inert filter material nearest the inlet, then oxalic acid to remove amines, a metal salt to remove S compounds, and finally activated charcoal.

The inert material is pref. fibreglass, cotton or asbestos, and the salt is copper sulphate, mercuric chloride or lead acetate. 25.2.77 as 772046 (5pp1358).

MERI ★ D22 59765B/32 ★US 4162-32

**Antibiotics 890 A1 and 890 A2 - useful as broad spectrum
antibacterials, disinfectants and industrial bactericides**
MERCK & CO INC 25.08.77-US-827504 (21.11.75-US-634300)
B02 C02 (D16) (24.07.79) A61k-31/40 C07d-487/04

Antibiotics 890A, and $890A_3$ and their salts are new. The antibiotics are isomers of the β-lactam cpd. of formula (I):



(I)

The antibiotics are broad-spectrum antibacterials useful as therapeutic agents, animal feedingstuff additives, preservatives for food, disinfectants and industrial bactericides e.g. for use in water-based paints and in the white water of paper mills. Dose is 2-600 mg./kg. daily 25.8.77 as 827504 (22pp1248).

See Also

D21 BE 873865

D23: OILS; FATS; WAXES

INCH- ★ D23 58060B/32 ★BE-875-360

Rotary cage continuous press to extract oil from seeds, etc. - has power driven crushing wheel inside frictionally driven eccentric cage

IND CHIM ITALIA 04.01.79-IT-047519 (06.04.78-IT-048783)
(31.07.79) A23n

The press comprises a power driven, heavy pressing wheel which is rotated on its axis inside an annular, extraction cage. The cage is internally channeled with an annular track in which the rim of the wheel slides with a slight clearance. The axis of the wheel is parallel and eccentric to the axis of the cage. The cage is freely rotatable within a ring of freely rotatable, radial support rollers. The periphery of the wheel just clears the internal circumference of the annular track at its closest point. The cage can be rotated on its axis by frictional drive transmitted from the wheel to the channel via sandwiched material being pressed

Extracted oil outlet holes are pref. formed through the base and sides of the track in the cage. An inlet for material to be pressed is pref. formed into the zone of max. clearance between wheel and cage.

Used for prodn. of oil from soft oil seeds and fruits, such as grape stones, cupra, olives etc. together with simultaneous output of drained cake suitable for pelletising. This robust, simple machine applies progressively increasing pressure up to a max. Highly efficient pressing action is obtd. by two eccentric rolling elements with frictional drive coupling. 5.4.79 as 875360 (23pp448)

ELSP/ ★ D23 58169B/32 ★DL-135-827

Pressure steaming of linseed - at alternating pressure in vertical cylinder with slowly revolving rotor

ELSPASS R 27.04.78-DL-205036
(30.05.79) C11b-01/04

In a pressure steam treatment of linseed the charge is treated on discharge from a pressure vessel by steam at a periodically changing pressure of 1-4 bar and moistened by 2-4%. The initial pressure of the vessel never falls below 0.1 bar and a steam jet heater keeps its temp. > 100°C.

This reduces the steam consumption and requires no excessive prior size reduction. The oil and groats produced are of high quality. 27.4.78 as 205036 (7pp39)

BADI ★ D23 58298B/32 ★DT 2804-167

Odoriferous 3,5,5-tri:methyl-hexan-1-ol and ester derivs. - prepd. by reacting tri:methyl-hexanal with Grignard cpd. and opt. esterifying

BASF AG 01.02.78-DT-804167
E17 G02 (D21 D25 G03) (02.08.79) A61k-07/46 C07c-31/02 C07c-33/02 C07c-69/02 C11b-09 C11d-03/50

New 3, 5, 5-trimethyl-hexan-1-ol derivs. and their esters have formula Me_3-C-CH_2-CHMe-CH_2-CHR^1-OR^2 (I) (where R^1 is 1-4C alkyl, a 2-4C olefinically unsaturated 2-4C aliphatic gp., ethynyl or propargyl and R^2 is H or 1-4C acyl. 5, 7, 7-Trimethyl-1-octen-3-ol, (Ia), 5, 7, 7-trimethyl-1-octen-3-ol acetate (Ib) and 6, 8, 8-trimethyl-1-nonen-4-ol (Ic) are specifically claimed.

(I) are prepd. by (i) reacting 3, 5, 5-trimethyl-hexan-1-al (II) with a Grignard cpd. R^1-Mg-Halogen (III) (where Halogen is Cl, Br or I) and then opt. (ii) reacting (I where R^2 = H) obtd. with a lower aliphatic carboxylic acid, chloride or anhydride. Mol. ratio (III) : (II) may be 0.8 : 1 to 1.5 : 1. The solvents are esp. Et_2O or tetrahydrofuran. (II) or its soln. is slowly added to a soln. of (III) and reacted another 0.5-5 (1-2) hrs. at -10 to + 50°C.

(I) are liqs., having interesting fragrance shades and are used as perfumes in cosmetic compsns., washing agents and detergents and for improving the smell of glues and paints. 1.2.78 as 804167(9pp200)

BADI D23 58298B/32 =EP

Odoriferous 3,5,5-tri:methyl-hexan-1-ol and ester derivs. - by reacting tri:methyl-hexanal with Grignard cpd. an esterifying

BASF AG 01.02.78-DT-804167
*E17 G02 (D21 D25 G03) (08.08.79) *DT2804-167 C07 C07c-33/02 C07c-69/14 C11b-09*

D/S: E(CH, DT, FR, GB, NL).

New 3,5,5-trimethyl-hexan-1-ol derivs. and their es have formula

$$Me_3C\text{-}CH_2\text{-}CHMe\text{-}CH_2\text{-}CHR^1\text{-}OR^2 \qquad (I)$$

(where R^1 is 1-4C alkyl, a 2-4C olefinically unsatd. aliphatic gp., ethynyl or propargyl and R^2 is H or 1- acyl). 5,7,7-Trimethyl-1-octen-3-ol (Ia), 5,7,7-trim 1-octen-3-ol acetate (Ib) and 6,8,8-trimethyl-1-none ol (Ic) are specifically claimed.

(I) are liqs., having interesting fragrance shades are used as perfumes in cosmetic compsns., washin agents and detergents and for improving the smell o glues and paints.

26.1.79 as 100231 (9pp200)

(G) ISR: US4002647; US3855322; DS544388; DS104

CREA- ★ D23 58499B/32 ★FR 2

Slow-release complex for volatile substances - comprising substance in a sintered metal matrix

CREATION REAL CHEVR 07.11.77-FR-033355
C03 P23 P24 (06.07.79) A01n-17/08 A44c-27 A45d-34 B01

Compsn. for slow liberation of volatile substances c prising a porous metallic matrix and the volatile sub contained in the network.

Suitable metals include bronze, stainless steel, n titanium, platinum and copper, preferably having a g size of 0.3 x 10^{-3} to 20 x 10^{-3} mm. The porous mat formed by sintering the powdered metals. The comp are made by passing a fluid containing the volatile su stances through the matrix and controlling the releas rate of the volatile substance by adjusting the porosi the matrix and the volatility coefficient of the volatil stance. The volatile component may be dissolved in or paraffins of high mol. wt.

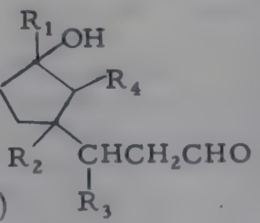
The compsn. releases volatile insecticides to con insects, esp. flies, in enclosed spaces. Deodorants perfumes may be used. 7.11.77 as 033355 (5pp288).

SHEL D23 42515A/24 =GB 15

1,2-Di:alkyl-3-formyl:alkyl-1-cyclopentanol cpds. - usef perfumes (NL 6.6.78)

SHELL INT RES MIJ BV 03.12.76-GB-050505
*E15 (08.08.79) *DT2753-644 A61k-07/46 C07c-47/36*

Cyclopentane derivs. of formula (I) are prepd. wher



(I)

and R_4 are each an alkyl, R_2 R_3 are each H or an alkyl. P one of the gps. R_2 and R_3 is a and the other is H, and the al gps. of R_1, R_2 and R_3 contain 4C. Pref. the cpd. prepd. is (2, 3-dimethyl 3-hydroxycycl pentyl)butanol.

The prepn. of (I) comprises hydroformulating the fin of the cyclopentane deriv. in the presence of a rh carbonyl complex catalyst of formula $RhH(CO)[P(C_6$

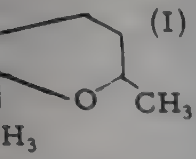
The cyclopentane derivs. prepd. are of interest a aroma chemicals, esp. for use in perfumes and perf prods., such as soaps, deodorants, detergents and sols. 3.12.76 as 050505 (3pp931)

SOSH ★ D23 58795B/32 ★J5 4

Perfume compsn. for cosmetics, foods, dentifrices etc. - c 2,3,4,4a,5,6-hexa:hydro-2,5,5,8a tetra:methyl(8ah)-1-benzo

SODA KORYO KK 06.12.77-JA-146314

methyl(8aH)-1-benzopyran of formula (I). Compsn.
n household goods, such as dentifrice, mouth-ref-
agents, foods, tobacco, cigars, cosmetics etc.


(I)

(I) can be prepd. from isophorone. The amt. of (I) in compsn. is 0.001-10 wt.%. When (I) is mixed with peppermint, spearmint or beefsteak plant flavour, the top-notes of menthol, carvone and peliraldehyde
ted. The same effects are demonstrated by mixing
citrus oil, strawberry flavour, cherry flavour,
vour etc. 6.12.77 as 146314 (5pp42)

D23 58796B/32 ★J5 4080-433
stable incense prepn. - by mixing perfume cpd. with
trin, admixing with higher boiling perfume cpd.,
d wood, binder and water, moulding and drying
NDO KK 09.12.77-JA-147784
(27.06.79) A61k-07/46

of incense comprises (a) mixing 1 pt.wt. perfume
having of b.pt. 100-250°C with 0.1-16.0 pts.wt.
xtrin (II); (b) mixing 2-20 pts.wt. mixt. obtd. with
pts.wt. perfume cpd. (III) having b.pt. ≥250°C,
ts.wt. powdery wood-material (IV), 5-12 pts.wt.
(V) and 30-90 pts.wt. water and (c) drying the
fter moulding, to a water content 5-10 wt.%.
nse emits smoke and perfume continuously and the
e cpds. are locked in stably, resulting in a storage
compsn.
f. (I) is geraniol, linalool, nerol, citronellol, terp-
benzyl alcohol, phenyl ethyl alcohol, limonene, pi-
etc. Pref. (II) are α-, β- and γ-cyclodextrins. Pref.
e camphor oil, santal wood oil, cinnamic alcohol,
ethyl acetate, etc. Pref. (IV) is powder of camell-
ite cedar, cedar, cherry, etc. Pref. (V) is dextrin,
rabic, methyl cellulose, etc. 9.12.77 as 147784
2)

D23 58938B/32 ★J5 4081-250
eta-bourbonene for perfumery - by photo irradiating
al oil of plants of the Carum genus to which ketone
ers have been added
DENTIFRICE KK 12.12.77-JA-149099
(28.06.79) C07c-13/54

comprises photoirradiation of the essential oil of
of the Carum genus such as Carum carvi L, Carum
hyllum Maxim and Carum holopetalum Maxim. To
sential oil are added ketones as sensitisers, e.g.
e, acetophenone, benzophenone, xanthone, anthraqu
, methoxyacetophenone, etc.
e method provides β-bourbonene in high yield, e.g.
92.1% conversion by a simple process not requiring
sive reagent or specialised equipment.
ef. the amt. of ketone added is 0.1-1000 wt.% based
amt. of the essential oil. The essential oil contains
crene D which is converted to β-bourbonene; e.g.
ntent of germacrene D in Carum carvi L. is 70-80%.
ssential oil is, if necessary diluted with e.g., petro-
ether, benzene, ethylene chloride or methanol, and
hoto-irradiated. The addition of ketones markedly
es irradiation time. 12.12.77 as 149099(4pp90)

★ D23 58939B/32 ★J5 4081-251
of beta-bourbonene, useful in perfume material - by photo-
tion of essential oil contg. germacrene-d to which terpene
(s) are added
N DENTIFRICE KK 12.12.77-JA-149100
(28.06.79) C07c-13/54

. of β-bourbonene comprises photo-irradiation of
sential oil contg. germacrene D to which terpene ke-
are added. The terpene ketone is piperitone, puleg-
verbenone, menthone or/and piperitenone.
adding terpene ketones the photoirradiation time be-
s 1/20-1/25 of that when no terpene ketone is added.
rbonene is produced in a conversion of around 90%.
e essential oil contg. germacrene D are pref. those
nts of Solidage or Carum genus, ylang-ylang oil, etc.
mt. of the ketones added is 0.1-1000 wt.% based on
mt. of the essential oil. 12.12.77 as 149100(5pp90)

AJIN ★ D23 58961B/32 ★J5 4081-309
Preventing hydrolysis of fats and oils e.g. soybean oil - by adding metal salt of phytic acid e.g. alkaline earth metal salt
AJINOMOTO KK 13.12.77-JA-149722
(28.06.79) C11b-05

Prevention of hydrolysis of fats and oils, e.g., vegetable fats and oils, such as soybean oil, rapeseed oil, palm oil, rice bran oil, corn oil, etc., animal fats and oils, such as lard, fish oil, etc., transesterified fats and oils or fatty acid esters, etc., is described in which 0.005-0.1 wt.%, pref. 0.05-0.1 wt.%, a metal salt of phytic acid, e.g., alkali metal salts, alkaline earth metal salts, other metal salts, or a mixt. of these, is added to fats and oils.

The method exhibits improved hydrolysis preventing capability when fats and oils are heated under a wet condition, or in the presence of water in particular, and also when heating temp. exceeds 70°C, partic 100°C. 13.12.77 as 149722(3pp117)

ALSA D23 57157A/32 =US 4162-221
Nitrated musk perfume compsns. - contg. modifying agents e.g. sugars to improve stability without affecting solubility or odour
ALSAC CONS MEC MULHOUSE (CHMA-) 31.01.77-FR-002663
*(D25) (24.07.79) *DT2803-691 C11b-09 C11d-03/50*

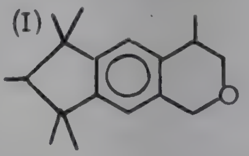
A compsn. is prepd. contg. nitrated synthetic musk, concurrently comprising 0.5-50wt.% of a modifying agent, w.r.t. musk plus agent. Modifying agent is a solid non-filmformer which is at least partially soluble in a lower alcohol.

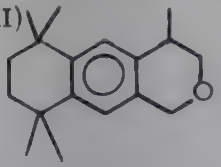
Pref. compsn. comprises 5-10wt.% of modifying agent The loweralcohol used is ethanol or isopropanol. The modifying agent is a solid which does not change the physical form, nor interfere with the olfactory properties of the musk. Modifying agent is saccharose, glucose or lactose, pentaerythritol or mannitol.

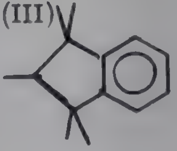
Modifying agent is odourless, non-toxic and non-irritant in contact with human tissue. It is esp. useful in the perfumery, washing materials and detergent industries. 27.1.78 as 872756 (4pp931).

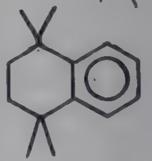
INFL ★ D23 59738B/32 ★US 4162-256
Prodn. of perfume cpds. esp. isochroman derivs. - from indane or tetra:hydro:naphthalene deriv. using propylene oxide and satd. hydrocarbon solvent
INT FLAVORS & FRAGR INC 19.04.78-US-897903
E13 (24.07.79) C07c-49/76 C07d-311/04

Isochroman derivs of formulae (I) and (II) are prepd. by reacting cpds. of formulae (III) or (IV) with propylene oxide in a satd. halogen-free 5-10C hydrocarbon solvent, at -20 to -5°C in the presence of $AlCl_3$ catalyst.

(I)


(II)


(III)


(IV)


The wt. ratio of solvent to (III) or (IV) is 10:1 to 1:10; the mole ratio $AlCl_3$ to propylene oxide is 1:1 to 2:1, and the mole ratio of (III) or (IV) to propylene oxide is 1:1 to 10:1. A 1-6C alkanol, in mole ratio 2:1 to 1:2 w.r.t. $AlCl_3$, is then added at -20 to 0°C, followed by paraformaldehyde or a formaldehyde source of formula $R'-O-CH_2-O-R'$ where R' is 1-6C alkyl, at a temp. of 20-80°C. The reaction mixt. is then quenched in water.

Using the above solvents, (I) and (II), useful as musk perfume cpds., are prepd. in improved yields and fewer process stages. 19.4.78 as 897903 (11pp955).

UNIL D23 19676A/11 =US 4162-260
Purifying tri:glyceride cpds. by adding hydratable phosphatide - before sepn. esp. by adding water and centrifuging
LEVER BROS CO 10.09.76-GB-037643
*C03 (24.07.79) *BE-858-585 C11b-03/04 +C09f-05/10*

Impurities are removed from triglyceride oils by mixing a hydratable phosphatide with the oils and sepg. the phosphatide together with the impurities by degumming process. Pref. 0.01-5(0.1-2)wt.% of the phosphatide is added to the

Pref. phosphatide obtd. by water degumming of soybean oil, peanut oil, sunflower seed oil rapeseed oil or cottonseed oil is used. Pref. citric acid is also added.

Impurities such as sugar, sterol glucosides, glycerol, proteins waxes etc. can be removed from the oil and are used in animal feedstuff. 6. 9. 77 as 830720 (8pp964).

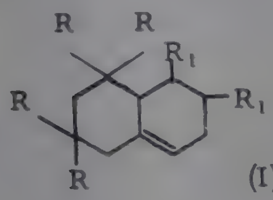
GIVA D23 04199Y/03 =US 4162-266

Trimethyl acetyl delta 5,10- octalin perfume mixt. - prepd. from vinyl trimethyl cyclohexene mixt. and methyl vinyl ketone (NL281276)

GIVAUDAN CORP 25.06.75-CH-008251

*E15 (24.07.79) *DT2622-611 C07c-49/61*

An amber aroma-possessing mixt. of cpds. of the general formula (I) are prepd.,



(I)

where 3 R gps. are Me and the fourth is H, and 1 R_1 gp. is H and the other is acetyl.

Pref. a mixt. of 1, 1, 3-(and 1, 3, 3-) trimethyl-7-(and 8-) acetyl - $\Delta^{5,10}$ - octalin is prepd., having a b. pt. of 75-100°C/0.2mm Hg; IR (liq.) 17.5 cm^{-1}; NMe ($CDCl_3$) 0.75-1.05ppm, 9H, multiplet C-CH_3, C$(CH_3)_2$; 2.16 ppm, 3H, multiplet CO-CH_3; 5.6 ppm, 1H, multiplet C=CH; MS:M+ 220, 177, 161, 150, 135, 121. Prods. are prepd. in a Diels-Alder-Type reaction involving methyl vinyl ketone and 1-vinyl 3, 3, 5-(and 3, 5, 5-) trimethylcyclohex-1-ene.

Prods. prepd. are used in the prodn. of perfumed prods. esp. soaps, solid and liq. detergents, aerosols, and cosmetic prods. such as toilet water, salves, face-milk, make-up, lipsticks, bath salts and oils. 1
as 695349 (4pp931).

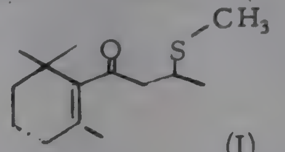
INFL D23 67315A/38 =U

Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo h
used as flavourants, prepd. by reacting dama
damascenone with methyl-mercaptan

INT FLAVORS & FRAGR INC 03.03.77-US-774055 (21
917689)

*E15 (D13) (24.07.79) *DT2808-710 A23l-01/22*

The aroma or taste of a foodstuff is augmented o
ed by adding 0.5-20wt. ppm w.r.t. total compsn.
pure synthetically produced 1-(3-(methyl-thio)bu
6, 6, -trimethylcyclohexene or the 1, 3-cyclohexad
logue of structure (I), where the dashed line is a



(I)

single- or double bo
is prepd. by reactin
mercaptan with 'beta
scenone' or 'beta-da
(I) is esp. used i
stuff, chewing gum,
paste and medicinal prod. flavour and aroma, to
flavour and aroma, and perfume and perfumed a
aroma augmenting and enhancing compsns. (I) is
used in foodstuffs, tobacco, perfume and perfume
aroma imparting compsns. 21. 6. 78 as 917689 D
4107209 (21pp931).

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

MOOC D25 10033R/07 =DS 1938-718

Low phosphate, non corrosive washing compositions

MO OCH DOMSJO AB 08.08.68-SW-010699

*E11 (02.08.79) *NL6912-138 C11d-01*

Detergent mixt. contains an anionic and/or nonionic surfactant, (A), an aminopolycarboxylic acid type complexing agent, (B), a peroxide bleaching agent, (C), and also, as corrosion-inhbiting additive, (D), an alkylpropylene glycol ether phosphate or an Na- or K salt having formula $RO(C_3H_6O)_n-PO(OM)_2$ (where R is 15-20 (16-18)C n-alkyl; M is H, Na or K and n is 1-4, esp. 1-2). Wt. ratio (A):(D) is 10:1 to 1:10. A pref. mixt. contains, by wt., 2-30 (10-20)% A, 2-30 (5-15)% (B), 5-40(15-30)% (C) and 1-20 (2-5)% (D).

The addn. of (D) reduces corrosive activity of mixt., even in hard water, on Cu, Zn, Al or their alloys. 19.2.70 as 938718 (7pp200)

UNIL D25 04699T/03 =DS 2134-215

Detergent powder - produced under pressure in an autoclave and spray dried

UNILEVER NV 10.07.70-GB-033718

*(02.08.79) *BE-769-827 +C11d-17/06*

In the prepn. of a detergent powder contg. a synthetic active detergent cpd. and an organic builder, an aq. paste contg. < 40 (< 30 wt. %) water is formed in a pressure-resistant vessel at 125-180°C and then spray-dried into
100-250 (150-200)°C
organic anhydride.

Heat-consumption for drying the paste is reduc
powders obtd. have increased bulk wt. 9.7.71 as
(5pp200)

ATLF D25 20979T/13 #D

Alkyl benzenes - treatment by carbon and hydrogenation
improvement

ATLANTIC RICHFIELD CO 13.07.70-US-054564 (27
153592)

*E14 (02.08.79) *US3646-238 C07c-07/* +C07c-15/02*

Detergent alkylates, prepd. by alkylating aromati
with 9-16C alkyl chlorides or olefins in the prese
chloride catalysts and which contain polynuclear a
cpds. and alkenylbenzenes, are treated with activ
fore catalytic hydrogenation with an H_2-contg. gas
93.3°C under 0.34-2.48 bar pressure.

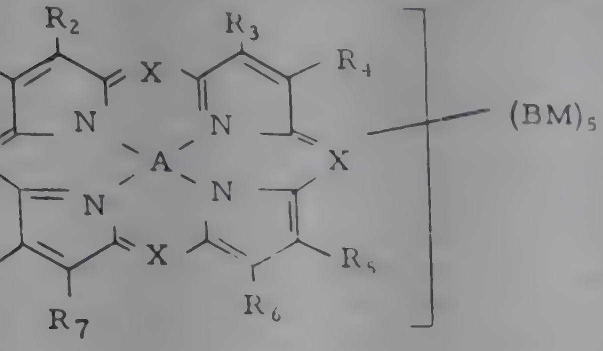
Active C treatment removes the polynuclear ar
cpds. After hydrogenation, the prods. can be sul
and then neutralised to alkylated benzenesulphona
gents having improved colour and odour. 27.10.7
153592 (4pp200)

PROC ★ D25 58446B/32 ★

Bleach compsn. contg. cationic cpd. and porphin photo
with improved stain removal, whiteness maintenance, an
dye removal

PROCTER & GAMBLE CO 11.01.78-RP-020642

compsn. contains a cationic cpd. (I), and 0.001-
wt. of an H_2O-soluble porphine photoactivator (II):


(II)

each X is =N- or =CY- (total =N- is 0-4); each
or meso-substd. alkyl, cycloalkyl, aralkyl, aryl,
l, or heteroaryl; each R_1-R_8 = H, pyrrole substd.
cycloalkyl, aralkyl, aryl, alkaryl or heteroaryl, or
nt R's are together with o-arylene to form pyrrole
. alicyclic or heterocyclic; A is 2 H's bonded to
ally opposite N atoms, or Zn, Ca, Cd, Mg, Sc, Al
(IV); B is an anionic, nonionic, or cationic solubilis-
substd. with Y or R; M is a counterion for B; s =
B gps.; alkyl includes a C-chain interrupted by O, N,
tc.
combination with (I), (II) have enhanced fabric
ing props. in the presence of visible light and atmos
he combination provides stain removal, and also
ves whiteness maintenance and removes fugitive

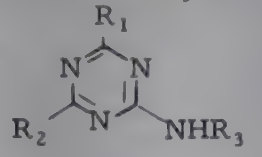
as 200013 (61pp478).
R: GB1372035; US4033718.

D25 03971Y/03 =GB 1549-871
ent compsn. contg. 3 alkyl ether sulphates - with excellent
props. and hard water resistance
) SOAP KK 04.09.75-JA-107367
*(E16) (08.08.79) *BE-845-798 C11d-01/37*
ergent compsn. is prepd. comprising 0.5-60 wt.% of
er sulphate surfactant contg. a mixt. of (A) contg.
wt.% of ≥1 unbranched-alkyl ether of formula (I),
$CH_2CH_2O)_nSO_3M$, and a balance of branched-alkyl
sulphate of formula (II) $R_2R_3CHCH_2O(CH_2CH_2O)_nSO_3M$,
B) an unbranched alkyl ether sulphate of formula (III)
$CH_2CH_2O)_mSO_3M$; such that the wt. ratio of (A) to
s 95:5-5:95, provided that if the compsn. contains
onents in addition to (I), (II) and (III), the total con-
of ether sulphates (I) and (II) is ≥2.5 wt.% of the total
e surfactant components.
the formula, R_1 is 8-13C unbranched alkyl, R_2 is 1-
unbranched alkyl, R_3 is 1-4C unbranched alkyl such
$R_2R_3CHCH_2$- contains 8-13C; n is 0.5-1.5, and M is
kali(ne earth) metal or alkanol amine. R_4 is an un-
ched alkyl, m is 1-50, (III) is present in amt. ≥80 wt.
r.t. (B). The detergent compsn. prepd. possesses
llent resistance to hard water, contains no sodium tri-
phosphate, and has an excellent rinsing property after
ing. 23.8.76 as 034988 (9pp931)

D25 38493A/22 =GB 1550-001
mono:alkyl sulphuric acid salts, useful detergents - made by
ation of 8-22C olefin(s) in the presence of 8-22C alcohol
IELL INT RES MIJ BV 30.11.76-GB-049832
*2 (08.08.79) *BE-861-245 C07c-139/08*
lt of a sec. monoalkyl sulphuric acid is prepd. by sul-
ing in a sulphation reaction zone, ≥1 8-22C olefin with
huric acid in the presence of ≥15 mole %, on olefin,
1 added 8-22C alcohols.
he sec. monoalkyl sulphuric acid is then neutralised
repare the salt formed, and ≥1 sec. 8-22C alcohol is
overed from the neutralisation reaction prod. and re-
ed to the sulphation reaction zone. Pref. the amt. of
ed alcohol is 20-400 mole %, on olefin. The process
ditions are such that the amt. of recovered alcohol is
same as the amt. of added alcohol.
The salts of sec. monoalkyl sulphuric acid are esp.
ful as detergents. Low concns. of sulphuric acid are
70-88 wt.% facilitating the removal of unconver-

UNIL D25 31318Y/18 =GB 1550-1
Triazine derivs. removal from stilbenic fluorescent agents -
treatment with a strong base in aq. media (NL 26.4.77)
UNILEVER LTD 24.10.75-GB-043849
*E24 (E13) (08.08.79) *DT2647-421 C07d-251/68 C11d-03/42*

Process for removing triazine derivs. of formula (I) fro
fluorescent agents (II) consisting of derivs. of 4, 4'-di(sy
triazinylamino)stilbene-2, 2'-disulphonic acid or salts
thereof, comprises contacting (II) with dil. aq. alkali



metal hydroxide soln. (pref. NaO
at atmos. pressure and ≯75°C. (
remains undissolved and is sepd.
from the aq. soln.

In the formula, R is OH or hal
gen. R_2 is OH or $-NR_4R_5$ where
R_4 and R_5 are each H, (substd.) alkyl or (substd.)aryl, o
R_4 and R_5 are combined in a heterocyclic ring. R_3 is
(substd.)alkyl or (substd.)aryl.

Method removes impurities (I) formed during prepn. o
(II), and renders (II) suitable for use in bleaching deterge
compsns. 22.10.76 (4pp927)

PROC D25 09275Y/06 =GB 1550-20
Textile softening compsns. for adding to rinsing baths - contain, a
cationic surfactants, cyclic quat. ammonium, polyamine, alky
imidazolinium, or alkyl pyridinium salts
PROCTER & GAMBLE CO 04.06.76-LU-075088 (14.07.75-US
595632)
*A87 E19 F06 (08.08.79) *BE-844-122 D06m-13/34*

Fabric softening compsn. consists of an aq. dispersion c
comprising (a) a fabric substantive cationic cpd. (I); (b)
a nonionic fabric softener that is a fatty acid ester of a
mono- or polyhydric alcohol or an anhydride thereof, the
alcohol or anhydride having 1-8C; and (c) an aq. carrier.

(I) is selected from (i) substd. polyamines, polyamine
salts of polyamine partial salts of formula:

$RR'_2\overset{+}{N}-[-(CH_2)_n-\overset{+}{N}R'_2-]_m-R'.A^-$ (in fully protonated or
quaternised form) where R is 10-22C alkyl or alkenyl,
each R' is independently H, $(C_2H_4O)_pH$, $(C_3H_6O)_qH$ or 1-3
alkyl where p anx q are numbers such that (p+q) 25, m i
1-9, n is 2-6 and A^- represents ≥1 anion having total
charge balancing that of the N atoms; and (ii) polyamine
salts having the above formula where R is H or 1-4C alky
each R' is H or 1-4C alkyl, n is 2-6 and m is ≮3.

Deposition of the fabric softener (b) onto fabrics is improved by the presence of (I) in the compsn. 13.7.76 as
029103 (8pp927)

PROC D25 09275Y/06 =GB 1550-20
Textile softening compsns. for adding to rinsing baths - contain, a
cationic surfactants, cyclic quat. ammonium, polyamine, alky
imidazolinium, or alkyl pyridinium salts
PROCTER & GAMBLE CO 04.06.76-LU-075088 (14.07.75-US-
595632)
*A87 E19 F06 (08.08.79) *BE-844-122 D06m-13/34 +B01f-17/18*

Fabric softening compsn. in the form of an aq. dispersion
comprises 3-20 wt.% of a disperse phase and the balance
of an aq. liq. carrier. The disperse phase comprises (a)
≥30 wt.% of a fatty acid ester of a mono- or polyhydric
alcohol or anhydride thereof contg. 1-8C; and (b) ≥5 wt.%
of a cationic surfactant (I).

(I) is selected from non-cyclic mono-quat. ammonium
salts having ≥1 opt. substd. 12-30C alkyl chain, N-alkyl
pyridinium salts having 12-20C in the alkyl gp., and
alkyl-substd. imidazolinium salts having ≥1 alkyl gp. of
8-25C. The particles of the disperse phase have an average size of < 4 u.

Deposition of the fabric softener (a) onto fabrics is improved by the presence of (I) in the compsn. 13.7.76 as
19548/78 Div.ex. 1550205 (8pp927)

HENK ★ D25 58554B/32 ★GB 2013-100
Machine washing and cleaning solid material - in which detergent
liquor is regenerated by passage over aluminosilicate in a swirl
chamber
HENKEL KG AUF AKTIEN 02.05.78-DT-819233 (29.12.77-DT-
758685)
E33 P28 (08.08.79) A47l-15/42 B01i-01/04 D06f-39

In a process for machine washing and cleaning solid mat-
rials using low phosphate or phosphate-free detergents

the detergent liquor contains $\geq$0.05 g./l., of a water soluble complex former which binds calcium ions and is circulated continuously or intermittently over aluminosilicate particles which bind calcium ions and which are contained in a swirl chamber.

The particles are 0.05 to 1 mm. pref. 0.1 to 0.5 mm., in size and direction of flow in the swirl chamber is opposite to gravity and the velocity of the liquid is lower than the rate at which the particles sink.

The process is used for cleaning textiles, in dishwashers, and for instruments, appts., pipes, boilers and vessels made of glass, ceramics, enamel, metal or plastics. The process regenerates the cleaning liquor by removing the calcium ions. The swirl chamber arrangement prevent vents the liq. and circulating path becoming blocked. 21.12.78 as 049479 (10pp1355)

MIUR- ★ D25 58713B/32 ★J5 4080-286
Detergent compsn. for ion exchange resin - contains organic mercapto-carboxylic acid
MIURA SEISAKUSHO KK 10.12.77-JA-148483
J01 (26.06.79) B01j-01/08

Water-sol. detergent compsn. for ion exchange resin, exhibiting excellent washing property and storage stability, capable of removing metal oxides, esp. iron oxide and Mn oxide etc., adhered to the surfaces of the ion exchange resin, is claimed.

Compsn. contains 0.5 to 30 (5-15)wt.% organic mercap-tosuccinic acid, ortho-mercaptobenzoic acid, mercaptoacetic acid, α-mercaptopropionic acid etc. As the solvent is used 99.5-70 wt.% of water, and an ion-masking agent, e.g. citric acid, tartaric acid, itaconic acid, sulphanyl acid, succinic acid, acetic acid, di-Na salt of EDTA, Na tripolyphosphate may be used in combination with water. The amt. of the detergent compsn. to be used is 1-150 (5-15) per litre of ion exchange resin. The compsn. may be introduced directly into an ion exchange resin tower, or may be used in combination with a regenerating agent, e.g. NaCl etc. 10.12.77 as 148483(3pp34)

HENK D25 28683X/16 =J7 9019-006
Pourable agglomerate contg. aluminosilicate calcium binders - and water sol. salts, for washing agents
HENKEL KG AUF AKTIEN 03.10.74-OE-007967
*E37 (12.07.79) *DT2543-976 C11d-03/02*

A washing powder compsn. contains, as basic ingredient, a pourable agglomerate which comprises (a) 20-70% of a finely divided, water-insol., synthetically prepared sili-
cate contg. bound water and having a calcium bindi
der of at least 50 mg CaO/g. anhydrous active subs
of formula (I): $(\mathrm{Cat}_2/{}_n\mathrm{O})_x\cdot\mathrm{Me_2O_3}; (\mathrm{SiO_2})_y$ (I) (where
a cation exchangeable with Ca of valency n; x is 0.7
Me is B or Al; y is 0.8-6, pref. 1.3-4) and (b) 30-8
at least two water-sol. salts contg. water of crysta
tion, selected from triphosphates, pyrophosphates,
phosphates, sulphates, carbonates, meta-silicates
-ates of alkali metals, esp. of Na. (I) contains 8-40
water.

The compsn. is used in washing and cleansing fo
tions. (I) is readily transportable and storable in sp
its moisture content. The agglomerates themselves
used as washing agents. 2.10.75 as 119350 (clg.3.1
OE-007967) C11d-3/02 (12.7.79) HENKEL & CIE G
(7pp) (J5 1061511)

UNIL ★ D25 59724B/32 ★US 4
Coloured nonionic detergent flake prepn. - by mixing de
with finely divided dry colouring agent
LEVER BROS CO 31.05.77-GB-022948
(24.07.79) C11d-01/66 C11d-03/40 C11d-11 C11d-17/06

Coloured detergent particles are prepd. by mixing
of nonionic detergent of softening point 30-70°C with
5% based on total wt. of the compsn., of dry powde
colouring agent of particle size 1-10 microns.

The softening point of the detergent is pref. > 40
below 60°C. The mixing process is pref. carried o
room temp. The process is simple. The dye does
bleed from the surface of the particles. 30.5.78 a
910818 (3pp955).

MONS ★ D25 59728B/32 ★US 4
Reduced hygroscopicity alkylbenzene sulphonate deter
prepd. from selected alkylbenzene fraction with high propo
sec. alkyl gps.
MONSANTO CO 25.09.78-US-945732 (05.01.78-US-86707
E14 (24.07.79) C11d-01/22

In a solid detergent compsn. contg. $\geq$ 5wt.% alkyl be
sulphonate having 10-15C alkyl chains, $\geq$ 55 mole% o
alkyl benzene sulphonates have alkyl chains of > 11C
$\geq$ 60% of the alkyl benzene sulphonates with the ring
ed to the 2-carbon of the chain have a chain of > 12C.

The compsn. is free flowing and less hygroscopic
known compsns. 25.9.78 as 945732 (5pp955).

See Also

D16 DS 2154031 D23 DT 2804167 D23 EP ---33
D23 US 4162221

CPI INDEXES

RTING PATENTEE INDEX (II)

y by section and overall, lists all current patents in tee code order and, within a given patentee, in earliest y date order. The first line gives patentee code, st priority date, patentee name, CPI classes and finally urrent patent number. The second line gives the first f the title, followed by the accession number.

```
EIGE/ 24.01.75 EIGENMANN L   A93  *DT 2602-948
   Bonding fluid for road marking strips - 60224X/32
EIGE/ 27.01.75 EIGENMANN L   A93 L02(A21)  *DT 2602-947
   Bonding fluid for road marking strips - 60223X/32
```

Not in Basic Abstracts Journal

CLASS INDEX (IV)

kly only. Headings are all the CPI es within the section to which an ing Bulletin relates, arranged in erical order. Posted under each class ing is a list, in country then patent ber order, of all basic or equivalent ments referenced or cross-enced under that heading.

```
     M22
*BE -836-489
*CA -987-881
=DS 1569-023
=DS 2245-330
*DS 2517-206
*DS 2519-679
=DS 2520-359
*DT 2450-918
*DT 2451-494
=DT 2451-607
```

In Country Alerting Bulletin only

SIC NUMBER INDEX (V)

kly by section and overall, lists all es by accession number. Each ding consists of the accession ber in bold, followed by the CPI on letters. There then follows a of all the family members, mencing with the basic and hing with the current week's nt. For each family member the week of issue is quoted, and a sign indicates that a multiple rity has been claimed.

```
09125-X ACDF
  US 3933-788  X05+
  CA -990-674  X26
09192-X BC
  US 3933-948  X05
  BE  -832-423  X10
  NL 7509-762  X10
  DT 2535-514  X11
  SW7509-042  X15
  NO7502-837  X16
  SF 7502-292  X19
  ZA 7504-766  X21
```

In all Editions

PATENT NUMBER INDEX (VII)

Weekly by section and overall. Lists left to right the patent type (* for basic, = for equivalent or # sign for non-convention equivalent or where the priority has been artificially "added" to the specification), patent number, accession number and CPI classes.

```
US 3963
#636 36477U  A97D15M14
*645 49861X  A41E19J04
=646 19776V  A41E19J04
=647 21100X  A17+R4
=650 06289S  A22
#651 24399W  A97K05L02M22
=652 73248V  A12
=653 70544V  A81G03
*654 49862X  A88H01Q4
*655 49863X  A81G03
```

In all Editions

BASIC PATENTEE INDEX (X)

Weekly by section in BAJ only. Entries under any given patentee code heading are in earliest priority date order. The title, truncated to 105 characters, is followed by the accession number and current patent number. The last line of each entry consists of the patentee name, the priority details (earliest then latest if there is more than one) and finally the Derwent classes. This index is cumulated quarterly and annually by section as hard copy. Overall A—M cumulations of from a quarter up to 5 years are available as COM.

```
CALI
Nitrile rubber smooth rolled sleeve for well impression packer - also cor
natural rubber, hydrated                          49862X/26  *US 3963-6
  CHEVRON RESEARCH CO 25.06.73-US-373341 +29.07.74-US-492377 A88 H
Mica contg. plastified sulphur mixt - for coating walls and floors or solidifyi
earth in dams                                     49433X/26  *DT 2554-3
  CHEVRON RESEARCH CO 03.12.74-US-529258 +13.11.75-US-631781 A82L02
CANA
Emulsifying agents of microbial origin - used esp. for oil spills, are made
cultivating a species of                          48076X/26  *CA -990-6
  CANADIAN PAT & DEV LTD 31.08.72-US-285159 A97 D16 H03
```

In Basic Abstracts Journal only

MANUAL CODE INDEX IN Basic Abstracts Journal only

At the start of each main group of codes, the manual code and its descriptor are printed in the middle of the column. Each sub-division of a manual code group appearing during the week is given, accompanied by its descriptor. All manual codes occurring during the week within each sub-division are then listed, with accession numbers posted against them.

In all there are about 3,600 manual codes in CPI, each one having an average of less than 200 documents assigned to it per year. The full classification is set out in the Manual Code Instruction Manual, which also contains a keyword index of terms for easy reference.

APPENDIX I

COUNTRY COVERAGE

"Major" Countries

Covered completely in CPI and WPI from the commencement of the service except: Research Disclosure 1978, Europe and PCT 1979, Sweden transferred from "Minor Countries" 1979. Average weekly numbers are listed alongside.

Fast publishing

Belgium	180	
Europe	150	
France	740	
Germany, W. unexamined	1050	
Japan unexamined	845*	
Netherlands unexamined	240	
PCT	40	
Research Disclosure	20	
South Africa	100	
Sweden	260	
United Kingdom unexamined	600	3325

Slow publishing

Canada	450	
Germany, E.	100	
Germany, W. examined	465	
Japan examined	340*	
Netherlands examined	60	
Soviet Union	1200	
Switzerland	260	
United Kingdom examined	300	
United States	1200	4375

*Only CPI coverage for Japan.

"Minor" Countries

Complete coverage, but only introduced during 1975, with exception of Italy 1978.

Fast publishing

Brazil	140	
Denmark	120	
Finland	60	
Norway	80	
Portugal	30	430

Slow publishing

Austria	125	
Czechoslvakia	180	
Hungary	35	
Israel	40	
Italy	155	
Rumania	25	560

MINOR AND MAJOR COUNTRIES

If the first publication of an invention takes place in one of the 'major' countries listed above, then this publication is called the basic patent, a WPI accession number is assigned, and this is used for all subsequent members of the family.

If, however, the first publication occurs in one of the 'minor' countries listed above, then the document is regarded as a provisional basic. No accession number is assigned, since an abstract is not provided. If this provisional basic is then followed by further family members also from 'minor' countries, these produce entries in the same indexes even though an accession number has still not been assigned.

However, as soon as a member of the family is published in one of the 'major' countries, then this is regarded as the first disclosure. An accession number is assigned, and will apply also to all the earlier members of the family (from the 'minor' countries). Hence it is possible to see, in Index V, entries where the basic has a later week number than some of its equivalents.

For CPI, if the first publication occurs in Sweden, South Africa or Japan — in the case of Non-Japanese nationals — then the document is treated as a provisional basic as outlined above. Other than for Japan where a heading is given, an Alerting abstract is included in CPI at this stage.

Subsequently, when a documentation abstract is available an accession number is assigned to the document and the abstract published in the BAJ and related products. Headings will be included in the Alerting Bulletins for Sweden and South Africa together with abstracts for the Japanese at this later stage.

Entries are included in WPI Gazettes at both stages. At the later stage both a basic and an equivalent heading will

COUNTRY CODES

For patent number (not priority) purposes, DS distinguis accepted West German specifications (DAS) from unexamined applications (OLS) which are given the nor DT code. in the case of Japan J5 represents unexamined applications, and J7 the examined of present series.

Argentina	AR	Luxembourg	LU
Australia	AU	Malawi	MW
Austria	OE	Mexico	MX
Belgium	BE	Monaco	MC
Brazil	BR	Netherlands	NL
Bulgaria	BG	New Zealand	NZ
Canada	CA	Norway	NO
Chile	CE	Pakistan	PK
Colombia	CO	PCT	WP
Czechoslovakia	CS	Philippines	RP
Denmark	DK	Poland	PO
Europe	EP	Portugal	PT
Finland	SF	Rhodesia	RH
France	FR	Rumania	RU
Germany, East	DL	South Africa	ZA
Germany, West	DS	South Korea	KS
Germany, West	DT	Spain	ES
Greece	GR	Sudan	SD
Hungary	HU	Sweden	SW
Iceland	IS	Switzerland	CH
India	IN	Syria	SR
Ireland	EI	Trinidad	TD
Israel	IL	Turkey	TR
Italy	IT	Untd. Kingdom	GB
Japan	JA	U.S.A.	US
Japan, unex.	J5	U.S.S.R.	SU

31.03.77 ABBOTT LABORATORIES B04 D16 =US 4162-305
biotic XK-99 - 86690A/48
21.11.77 ABBOTT LABORATORIES A96 B04 D17 =J5 4080-405
ose polymer mixed soln. - 40906B/22
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-826
ostd. 6-epi-fortimicin A and B derivs. - 49417B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-827
:oxy-4-acyl or alkyl fortimicin derivs. - 49412B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-828
oxy-N-substd.-fortimicin A and B cpds. - 49527B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-829
-O-methyl-2-N-acyl fortimicin derivs. - 49416B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-830
bacterial antibiotic fortimicin B derivs. - 49414B/27
21.12.77 ABBOTT LABORATORIES B03 C02 D22 E13 =SW 7812-832
-acyl or alkyl fortimicin A and B derivs. - 51124B/28
12.04.76 AIR PRODUCTS & CHEM INC C03 D16 (C04 D13) =US
53
nass with high phosphorus and nitrogen content - 14434B/08
27.12.77 AIRWICK AG A97 D22 (A18 A25) =PT --68-981
form release vapour dispensing system - 53043B/29
3.12.77 AJINOMOTO KK D23 *J5 4081-309
venting hydrolysis of fats and oils e.g. soybean oil - 58961B/32
01.02.78 AJINOMOTO KK B03 D16 E13 *DT 2903-315
nentative prodn. of L-proline - 58379B/32
22.12.77 ALBRIGHT & WILSON LTD D25 E13 =NO 7804-335
ficn. of alkyl imidazoline surfactants - 49529B/27
23.10.78 ALBRIGHT & WILSON LTD D25 =GB 2013-235
c. dilutable aq. surfactant compsn. - 14454B/08
27.04.77 ALFRED UNIV RES FOU D11 L02 *US 4162-334
ad baking in earthenware pans - 59768B/32
31.01.77 ALSAC CONS MEC MULHOUSE D23 (D25) =US 4162-221
ated musk perfume compsns. - 57157A/32
27.05.70 AMERICAN BRANDS INC D18 *US 4161-953
fing tobacco, esp. lamina tissue - 59655B/32
29.05.75 AMERICAN CYANAMID CO D22 E14 =IL --49-450
hydrous liquid germicidal iodophor compsn. - 31665X/17
24.01.78 AMERICAN CYANAMID CO A14 D15 (A97) #NL 7800-864
le inhibition using anionic polymer(s) - 15726A/08
29.08.75 AMERACE CORP A96 B04 D16 (A97) =GB 1550-128
oluble protein esp. enzume, compsn. - 18513Y/11
= 01.06.77 AS MOLD APP PHYSICS D14 *SU -629-916
ctro-plasmolyser for raw vegetable material - 59377B/32
D 07.12.77 AMERICAN MONITOR CORP B04 D16 =J5 4080-192
ymatic determination of tri-glyceride(s) in serum - 44032B/24
- 09.11.77 ANIMARK PROD LTD D21 E37 *EP ---3-248
mpsn. for bleaching hair and keratinous fibre - 58409B/32
03.01.78 ANIC SPA B05 D23 E17 =GB 2013-176
thyl-heptenone prepn. for use as terpene intermediate - 45685B/25
10.06.75 AGENCE NAT VALORISA D12 =GB 1549-886
tomatic evisceration of butchered animal carcass - 94304X/51
C 23.07.75 AQUA CHEM INC D15 J01 =CA 1058-549
uid concentration using two evaporation stages - 38296A/21
- 01.12.77 AQUEONIX INC D15 *J5 4079-949
rilising water e.g. for swimming pool - 58639B/32
25.01.78 ARIAS J V D15 =NL 7900-600
vention of corrosion and scaling inside water pipes - 52561B/29
17.11.73 ASAHI DOW KK D13 =J5 0077-558
ady-to-cook packaged rice - 59219B/32
17.11.73 ASAHI DOW KK D13 *J7 9019-449
ady-to-cook packaged rice - 59219B/32
29.01.74 ASAHI CHEMICAL IND KK D15 E31 =J7 9019-879
moval of chromium ions from waste waters with activated carbon -
15Y/23
04.12.74 ASAHI CHEMICAL IND KK C03 D16 (D13) =J7 9019-466
gh purity, high protein microorganism cells for feedstuff - 57003X/30
03.12.77 ASAHI CHEMICAL IND KK D12 *J5 4080-900
gh density storage of live (shell)fish - 58853B/32
13.12.77 ASAHI CHEMICAL IND KK D15 *J5 4081-663
ater purificn. appts. suitable for domestic use - 59035B/32
14.12.77 ASAHI CHEMICAL IND KK D15 *J5 4082-367
nmoniacal nitrogen removal from waste water - 59114B/32
M- 16.12.76 ASAMA SHUZO KK D16 =J7 9019-478
coholic liquor prepn. from sake and plum juice - 57626A/32
- 06.05.76 ASKO-UPO OY D15 *CA 1054-307
ological dry toilet with sepn. of urine from excrement - 58072B/32
= 29.06.77 AS USSR MICROB BIOP D22 *SU -629-929
od and microbiological steriliser - 59381B/32
27.10.71 ATLANTIC RICHFIELD CO D25 E14 #DS 2153-592
kyl benzenes - 20979T/13

30.04.74 BASF AG A60 C03 D22 E19 (C01) =CA 1058-216
Nitroso N-(cyclo)alkyl hydroxylamine aluminium salts prodn -
719W/43
12.02.75 BASF AG B05 D13 E15 (E24) =CA 1058-625
mmetrical carotenoids prepn. - 65017X/35

BADI 05.08.75 BASF AG C03 D13 E15 =CA 1058-626
Canthaxanthine prepn. from echinenone or (retro dehydro)carotene - 09377Y/06
BADI 28.08.75 BASF AG A14 D15 F09 H01 (A97) =GB 1549-874
High mol. wt. acrylamide copolymer retention and flocking agents - 18316Y/11
BADI 04.11.77 BASF WYANDOTTE CORP A25 D25 E17 (D21) #FR 2407-979
Nonionic surfactant with hydrophilic polyglycerol backbone - 43949A/24
*BADI 26.01.78 BASF AG D15 J03 L03 M25 *DT 2803-256
Composite electrode for cells contg. sulphuric acid electrolytes - 58205B/32
*BADI 01.02.78 BASF AG D23 E17 G02 (D21 D25 G03) *DT 2804-167
Odoriferous 3,5,5-tri:methyl-hexan-1-ol and ester derivs. - 58298B/32
BADI 01.02.78 BASF AG D23 E17 G02 (D21 D25 G03) =EP ---3-361
Odoriferous 3,5,5-tri:methyl-hexan-1-ol and ester derivs. - 58298B/32
BATT 18.01.77 BATTELLE MEMORIAL I A96 D22 =US 4161-948
Laminated wound dressing resembling natural skin - 53882A/30
BAUM- 15.12.77 BAUMGARTNER PAPIERS D18 F04 =PT --68-917
Cigarette filters prodn. - 29786B/16
BECI 13.02.76 BECKMAN INSTRUMENTS INC B04 D16 J04 =US 4162-194
Analysis of alpha and beta amylase in body fluids - 59735Y/34
BEEC 15.03.75 BEECHAM GROUP LTD B04 D16 =CA 1058-540
Antibiotic MM 17880 from streptomyces olivaceus - 72175X/39
BEEC 15.03.75 BEECHAM GROUP LTD B04 D16 =US 4162-304
Antibiotic MM 17880 from streptomyces olivaceus - 72175X/39
BEHW 03.11.73 BEHRINGWERKE AG B04 D16 =IL --45-960
Anti-tetanus vaccine - 34178W/21
BEHW 12.02.76 BEHRINGWERKE AG B04 C03 D16 =DS 2605-469
Glycoprotein fractions prodn. from rabies virus - 59354Y/34
*BELM/ 02.11.77 BELMONTE N D15 J02 *FR 2408-277
Motorised turbine aerator for liq. oxidn. and flotation sepn. - 58527B/32
BENC 26.10.68 BENCKISER J A GMBH D16 E17 #DS 1817-907
Fermentation of aldose to esp gluconic acid - 32873R/19
BIOC- 24.01.78 BIOCELL SRL D23 (D13 D21) =NL 7900-419
Fractional crystallisation of fats esp. butter and palm oil - 40648B/22
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =DK 7804-022
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =NO 7804-291
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =PT --68-940
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BLUE- 21.12.77 BLUE WING CORP C03 D13 (C04) =SW 7809-483
Dry fertiliser, animal feed or human feed prodn. - 47150B/26
BOEF 05.05.71 BOEHRINGER MANNHEIM GMBH B04 D16 =DS 2167-120
Growth of microorganisms - contg creatinine - 74817T/47
BOEF 29.11.74 BOEHRINGER MANNHEIM GMBH B04 D16 (B01) =IL --48-195
Cholesterol oxidase prodn - 48120X/26
BOEF 26.10.77 BOEHRINGER MANNHEIM GMBH B04 D16 =J5 4080-488
Maltose-phosphorylase and beta-phosphoglucomutase prodn. - 33326B/18
BOEF 09.12.77 BOEHRINGER MANNHEIM GMBH B04 D13 E13 J04 =J5 4080-793
Colorimetric assay of ascorbic acid - 89647A/50
BOEF 23.12.77 SUEDDEUT ZUCKER AG A97 D15 (D17) =DK 7805-776
Biological sugar refinery effluent treatment - 12099B/07
*BOEI- 09.12.77 BOEICHO GIJUTSU KENKYU D15 J01 *J5 4080-279
Appts. for removing oil from oily waste liq. - 58708B/32
BOHN/ 28.01.78 BOHNKE B D15 =DT 2803-759
Installation for treating water by activated sludge process - 39027B/21
BOHN/ 28.01.78 BOHNKE B D15 =GB 2013-172
Installation for treating water by activated sludge process - 39027B/21
BORA- 16.12.77 BORAX HOLDINGS LTD A97 C03 D22 F09 =NO 7804-232
Synergistic wood preservative compsn. - 49370B/27
BRAS- 30.01.78 BRASSERIES KRONENBO D16 E17 J04 =DT 2852-467
Analytical appts. for measuring alpha-di:ketone concn. - 25979B/14
BRAS- 30.01.78 BRASSERIES KRONENBO D16 E17 J04 =GB 2013-336
Analytical appts. for measuring alpha-di:ketone concn. - 25979B/14
BRPE 05.11.77 BRITISH PETROLEUM LTD A88 D15 H01 J04 =FR 2407-730
Determining soluble biological cpds. in water with adsorption filter - 39993B/21
*BRTO 12.09.77 BOC LTD D15 J02 *GB 2013-095
Dissolving sparingly soluble gas in liq. via siphon device - 58551B/32
*BRTO 22.12.77 BOC LTD D15 *NO 7704-424
Using low-solubility gas to treat liquids - B/32
BUCL 24.04.72 BUCKMAN LABS INC B04 C03 D22 =J7 9019-444
Dithiocarbamic acid derivs - 50265U/35

*CADB 22.10.77 SCHWEPPES LTD D15 *GB 2013-096
Control valve for water carbonating appts. - 58552B/32
CALF 28.01.75 CALIFORNIA PELLET CO C03 D13 =CA 1058-008
Perforated drum pellet mill with internal rollers - 07128X/04
*CARL- 03.04.78 CARLE & MONTANARI D11 *DL -135-680
Wafer cutting and feeding machine - 58110B/32
*CARR/ 11.02.77 CARRAZ G L M B02 D16 *FR 2407-718
Antitumour poly-cyclic lactone - 58497B/32

*CENG 13.12.77 CENTRAL GLASS KK B06 C04 D13 E36 *J5 4081-197
Removal of solvent from purified phosphoric acid - 58913B/32
CHFP 23.01.75 CHEM FAB PFERSEE GMBH D18 E24 =DS 2502-563
Degreasing and dyeing hides and pelts - 59961X/32
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =DT 2901-803
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =DT 2901-829
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =EP ---3-318
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =GB 2013-086
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =GB 2013-239
Terpene(s) steam-distilled from aromatic plants - 40655B/22
*CHOK- 16.09.71 CHOKAI MISO KK D13 *J7 9019-451
Boiling soybean without producing soybean odour - 59220B/32
*CHOK- 09.12.77 CHOKAI MISO KK D13 *J5 4080-458
Powdery bean milk prepn. - 58801B/32
CIBA 02.12.74 CIBA GEIGY AG A14 D22 (A97) =IL --48-581
Particulate complexes of polyvinyl-pyrrolidone and iodine - 46051X/25
CIBA 24.06.76 CIBA GEIGY AG A97 D15 J01 (A11) =GB 1550-270
Cellulose based adsorbent for heavy metal ions - 00045A/01
*CIEN- 25.02.77 INT CIENCIA Y TECNO D22 J01 *US 4162-289
Filter for corpse decomposition gases - 59753B/32
CNDR 30.07.75 CONSIGLIO NAT RICERCHE A88 D15 J01 (A23) =IL --50-135
Supported anisotropic membrane for reverse osmosis - 09298Y/06
COLG 06.09.74 COLGATE PALMOLIVE CO A97 D25 =CA 1058-040
Detergent and cleasing paste - 22893X/13
COLG 09.08.76 COLGATE PALMOLIVE CO A96 D22 =GB 1550-056
Tape fastener for disposable diaper - 73887Y/41
*CONF= 17.05.77 CONFECTIONERY IND RES D13 *SU -629-419
Vibrating fluidised layer drying of friable material - 59319B/32
*CONF= 08.06.77 CONFECTIONERY IND D11 *SU -629-911
Dough for baking protein-rich sweet pastries - 59373B/32
COOR- 22.12.77 COORS FOOD PROD CO D13 (D16) =DK 7805-754
Edible yeast product used as cocoa substitute - 47147B/26
COOR- 22.12.77 COORS FOOD PROD CO D13 (D16) =NO 7804-200
Edible yeast product used as cocoa substitute - 47147B/26
COOR- 22.12.77 COORS D13 (D16) =PT --68-937
Edible yeast product used as cocoa substitute - 47147B/26
COOR- 22.12.77 COORS FOOD PRODS D13 (D16) =SW 7812-765
Edible yeast product used as cocoa substitute - 47147B/26
CORP 08.10.74 CPC INTERNATIONAL INC A11 D17 (A97 D13 D16) =CA 1058-106
Preparing soluble starch hydrolysate - 30160X/17
CORP 01.11.76 CPC INTERNATIONAL INC D17 =GB 1550-070
Sepg. wheat starch and wheat gluten using alpha-amylase - 17715A/10
CORP 16.06.77 CPC INTERNATIONAL INC B03 C02 D13 (D16 D17) =PT --68-167
Syrups of high fructose content prodn. from sucrose - 91482A/51
COUE 22.04.76 COULTER ELECTRONICS INC A97 D16 J04 K05 =US 4162-282
Uniform liquid coated microdroplets prodn. - 81450Y/46
*CREA- 07.11.77 CREATION REAL CHEVR C03 D23 *FR 2407-727
Slow-release complex for volatile substances - 58499B/32
*CREP- 27.12.77 CREPACO INC D13 *US 4162-127
Freezing and mixing chamber for ice cream - 59676B/32
CREP- 30.01.78 CREPACO INC D13 =GB 2013-094
Agitator and dasher e.g. for ice cream or margarine mfr. - 93032A/51
*CREP- 08.09.78 CREPACO INC D14 *US 4161-909
Ultrahigh temperature heating system for liquids - 59651B/32

*DAND- 21.11.77 DANDY J CO C03 D13 *US 4162-336
Extruded dry pet food contg. aldo-hexose(s) or keto-hexose(s) - 59769B/32
*DAUC 04.04.66 DAIICHI PHARM KK B04 D16 *J7 9019-475
Antibiotic samarosporin prodn. - 59223B/32
DEBN 07.12.77 DEL LABS INC A96 D21 G02 #J5 4080-430
Nail polish imparting high flexural strength - 63351A/35
DECI- 24.03.75 DEC INT INC D12 =CA 1058-513
Closed circulation system for smokehouse air - 24112X/13
DEGS 16.03.74 DEUTSCHE GOLD & SILBER A97 C03 D13 E17 (D22 E12) =CA 1058-003
Animal feed preservatives contg. (meth)acrylic acid - 64177W/39
DEGS 26.02.75 DEUTSCHE GOLD & SILBER D13 E17 =CA 1058-634
Pure racemic- and meso-tartaric acids prepd from alkali maleate - 70688W/43
DEGS 14.06.75 DEUTSCHE GOLD & SILBER C01 D13 =CA 1058-635
Calcium salts of (bis) hydroxymethyl lysine - 96279X/52
DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 =DK 7805-757
Deodorising industrial and urban waste water sludges - 47180B/26
DEGS 23.12.77 DEUTSCHE GOLD & SILBER D15 =SW 7813-276
Deodorising industrial and urban waste water sludges - 47180B/26
*DHPC- 08.02.77 DHP CORP D21 E17 *US 4162-172
Removing hardened zinc oxy:phosphate dental cement - 59695B/32
DIAS 01.07.75 DIAMOND SHAMROCK COR A91 D15 =IL --49-920

*DIES/ 04.04.78 DIESSNER H D15 *DL -135-766
Efficient prodn. of potable water on ships - 58148B/32
*DNAS/ 29.12.78 DO NASCIMENTO J M C03 D13 *PT --69-013
Prepn. of animal feeds for ruminants - B/32
DOWA 14.12.77 DOWA MINING CO LTD D15 J01 M25 =J5 4082-30
Removal of arsenic from solns. of sulphuric acid - 29781B/16
DOWC 07.04.75 DOW CHEMICAL CO A96 D22 F07 G02 (A14) =
1549-994
Water absorbent, cross linked acrylic fibres and films - 79344X/43
DOWO 19.12.74 DOW CORNING CORP A97 D25 F09 (A25 A26
F06) =CA 1058-052
Foam regulator contg. base oil, regulator and dispersant - 52480X/2
DRAH 13.03.74 DRAHTWAREN DRAHTZUG D11 F02 =DS 2509-413
Winding device in which yarn is inclined to diametric axis of bo
47708W/29
DRED 09.06.69 VEB ARZNEIMITTEL DRESDEN B04 D16 =DS 2024-251
Fibrimolytic enzyme separation from mould - 00280S/01
DRED 20.12.77 VEB ARZNEIMITTEL DRESDEN B02 D16 =SW 7813-06
Recovering ergot alkaloid(s) from culture suspension - 54811B/30
DSOP 11.10.73 DSO PHARMACHIM B04 D16 =DS 2448-648
Lactobacillus bulgaricus compsns. - 29956W/18
*DUMA/ 03.11.77 DUMAS G P C04 D15 *FR 2407-894
Purificn. of highly polluted organic effluent - 58510B/32
DYNN 04.11.77 DYNAMIT NOBEL AG B04 D16 =FR 2407-937
Immobilising enzymes on amorphous silica carrier - 35242B/19

EART- 10.12.77 EARTH SEIYAKU KK C03 D22 =J5 4080-412
Insecticidal and fungicidal fumigation without combustion - 72820A/
EBAI 04.03.74 EBARA INFILCO KK D15 J01 =J5 0118-974
Desalination of water by reverse osmosis - 59252B/32
*EBAI 04.03.74 EBARA-INFILEO CO LTD D15 J01 *J7 9019-880
Desalination of water by reverse osmosis - 59252B/32
EBAI 31.01.75 EBARA INFILCO KK D15 E36 J01 =J7 9019-112
Removing silicic acid from water - 96719X/52
*ECAL/ 08.01.71 ECAL M J F D16 *FR 2407-982
Low temp. aseptic maceration of grapes to make red wine - 58515B/
EISA 04.09.70 EISAI KK B02 D21 =DS 2144-249
Vitaminised cosmetic cream - 18525T/12
ELBI- 10.11.72 ELBI SPA D15 =DS 2354-662
Water softener signalling device - 38591V/21
ELIL 02.12.75 ELI LILLY & CO C02 D22 (D15) =IL --50-793
(1)-Benzothieno-(3,2d)-(V)-triazines - 30750Y/17
ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 =PT --68-858
Antibiotic A-40104 fraction A - 93172A/51
*ELSP/ 27.04.78 ELSPASS R D23 *DL -135-827
Pressure steaming of linseed - 58169B/32
*ESIT= 14.03.75 EAST SIBE TECH INST A97 D18 E11 (A26) *SU -630-293
Compsn. for treating fur skins - 59533B/32
ESPE 23.01.78 ESPE FAB PHARM PRAPARATE A35 D21 (A96) =EP --
312
UV irradiator for curing teeth fillings - 56551B/31
ETHI 20.01.78 ETHICON INC D22 =DT 2902-048
Armed suture package of folded paperboard panels - 09730B/05
EXTR- 16.11.77 EXTRACTION DE SMET D17 J01 =BR 7807-521
Continuous extn. by diffusion into solvent esp. for sugar mfr. - 23370A

FARB 21.03.74 BAYER AG B03 C02 D13 =DS 2413-720
Microbial amino-sugar cpds as feed-additives - 67509W/41
FARB 24.06.75 BAYER AG A60 B02 C02 D13 (D22) =IL --49-847
Antibiotic penicillins also useful as animal growth promoters - 03901Y
FARB 20.08.75 BAYER AG C02 D16 =IL --49-143
Nikkomycin from streptomycin tendae - 79351X/43
FARB 02.04.76 BAYER AG B03 C02 D21 =DS 2614-393
Amino sugars which inhibit glycoside hydrolases - 70740Y/40
FARB 26.11.77 BAYER AG A94 D22 F01 (A14 A96) =J5 4082-428
Dry spun hydrophobic fibres with high water retentivity - 42564B/23
FARB 17.12.77 BAYER AG A97 D15 F09 (A26) =NO 7804-042
Water-soluble amido-poly:amine cpds. for use in paper mfr. - 47346B
FARB 24.12.77 BAYER AG C03 D13 =DK 7805-799
Plant protectant cpd. prepd. by Actinoplanes culture - 52922B/29
FARF 16.05.75 VEB CHEMIEKOMB BITT A96 D21 =DL -119-969
Hair and face lotions which reduce seborrhea - 52258X/28
FARH 08.02.75 HOECHST AG D15 E11 M14 =CA 1058-474
Inhibiting corrosion of water-bearing systems - 65195X/35
FARH 12.03.75 HOECHST AG A97 D12 =CA 1058-117
Folded synthetic skin with protecting sheath - 72184X/39
FARH 04.11.77 HOECHST AG A60 D23 E16 K01 (A14) =FR 2407-741
Surfactant mixt. of per:fluoroalkyl quat. ammonium alkyl sulphate
35259B/19
FARH 19.12.77 HOECHST AG A97 D25 E11 =NO 7804-265
Washing powder with improved detergent auxiliary - 45714B/25
FARH 19.12.77 HOECHST AG A97 D25 E11 =SW 7813-004
Washing powder with improved detergent auxiliary - 45714B/25

10.03.78 FARM ANIMALS REARIN D13 *DL -135-559
urising and cooling plant for milk - 58086B/32
15.05.77 FERMENT PRODUCT RES D16 *SU -630-287
holic fermentation of starch-contg. base - 59529B/32
.01.78 FIRMENICH SA D23 E13 =NL 7900-441
hexyl pentanolide derivs. for perfumery - 56570B/31
0.12.77 FMC CORP D22 E17 =PT --68-952
atic di:peroxy-di:carboxylic acid prodn. - 29650B/15
13.06.77 FOOD IND EXTRAMURAL D16 J04 (D14) *SU -630-582
de spectrophotometric determination in beverages etc. - 59635B/32
8.02.75 FORSTER H D13 =DL -118-531
ng and kneading installation esp. for masses of chocolate - 2X/22
8.01.78 FOSPUR LTD A97 D15 E31 M14 *GB 2013-168
biting corrosion of non-ferrous metal in water system - 58561B/32
.01.78 FREITAG L TRANSPORT D12 *DT 2804-005
t carcass suspension rail conveyor junction - 58279B/32
11.01.78 FRENZEL R D16 *DL -135-625
gar prodn. plant - 58103B/32
1.01.78 FERRERO OHG B06 D21 (D16) *DT 2804-093
cariogenic foods and pharmaceuticals - 58290B/32
1.01.78 FERRERO OHG B06 D21 (D16) *DT 2804-138
cariogenic foods and pharmaceuticals - 58294B/32
06.12.77 FUJI CHEMICAL IND KK D12 *J5 4080-455
ling bed material prepn. - 58799B/32
0.12.77 FUJI KASUI KOGYO KK D15 *J5 4081-664
ting cyanide-contg. waste water - 59036B/32
25.07.74 FUSEY P A97 D25 E19 H03 (D15) =CA 1058-051
ergents forming biodegradable emulsions with oils and greases - 15W/52
25.07.74 FUSEY P D25 E16 =IL --47-748
ergent base for washing fabrics - 85014W/52

04.07.75 GABA AG B05 D21 =GB 1550-139
npsn. for control of gingivitis and paradontitis - 06092Y/04
20.01.78 GALLAHER LTD D18 E36 H06 =NL 7900-486
alyst for oxidn. of carbon mon:oxide to di:oxide - 54504B/30
20.01.78 GALLAHER LTD D18 E36 H06 =NL 7900-487
alyst for oxidn. of carbon mon:oxide to di:oxide - 54504B/30
20.01.78 GALLAHER LTD D18 E36 H06 =NL 7900-488
oking product contg. catalyst for oxidn. of carbon mon:oxide - 06B/30
- 05.12.77 GARHIN SA A88 D15 J04 =PT --68-866
d additive metering system - 44303B/24
17.04.78 VEB KOMBI GARTENBAU D13 *DL -135-799
ssels sprouts sorting and cleaning machine - 58157B/32
27.01.78 G-C DENTAL IND A96 D21 *DT 2902-713
active dental mixt. hardening at room temp. - 58357B/32
- 27.01.78 G-C SHIKA KOGYO KK A96 D21 *DT 2902-713
active dental mixt. hardening at room temp. - 58357B/32
- 27.01.78 G-C SHIKA KOGYO KK A96 D21 =GB 2013-218
active dental mixt. hardening at room temp. - 58357B/32
22.11.77 GENERAL ATOMIC CO A96 D22 F07 =J5 4079-993
lti-fibre carbon coated suture - 40969B/22
29.04.74 GAF CORP D21 E14 =CA 1058-210
ts of amino esters and cinnamic or p-amino benzoic acids - 30465W/18
20.06.75 GENERAL ELECTRIC CO A26 D15 F09 H01 (A97 D16 D17) 1549-884
tifoaming dimethyl polysiloxane compsn. - 02365Y/02
20.12.77 GENERAL ELECTRIC CO D15 H05 J01 =DK 7805-731
ndom fibrous matrix coalescer for sepg. fluids of differing density - 489B/26
20.12.77 GENERAL ELECTRIC CO D15 H05 J01 =NO 7804-275
ndom fibrous matrix coalescer for sepg. fluids of differing density - 489B/26
/ 23.01.78 GENIE G V D17 =NL 7900-417
tary drum washer for extracting sucrose from beet and cane - 061B/03
18.10.76 GENERAL FOODS CORP D12 =US 4162-332
nulated meat products of vegetable protein - 21326W/13
- 03.06.71 GERVAIS DANONE AG D13 =DS 2127-531
eese fondu - 76784T/48
26.11.77 GIULINI CHEMIE GMBH D21 =J5 4080-429
ntifrice contg. fine poly:phosphate granulate - 42569B/23
25.06.75 GIVAUDAN CORP D23 E15 =US 4162-266
methyl acetyl delta 5,10- octalin perfume mixt. - 04199Y/03
25.11.77 GIVAUDAN L & CIE SA D23 E14 =J5 4081-237
bstd. di:hydro-cinnamaldehyde perfume prepn. - 42697B/23
14.05.75 GRACE W R CO D17 E13 =CA 1058-613
ray-drying fructose without thermal degradation - 39643X/21
/ 27.01.78 GRAJECKI U D22 E14 (D14) *DT 2803-487
w-foaming aq. disinfectant soln. - 58231B/32
09.11.77 GREFCO INC D16 =BR 7807-377
ducing the beer-soluble iron content of diatomaceous earth - 906B/11

= 11.05.77 HEAT MASS TRANSFER D16 *SU -629-424
ermally sensitive material dryer - 59324B/32
*HEAT= 17.05.77 HEAT MASS TRANSFER D13 *SU -629-419
Vibrating fluidised layer drying of friable material - 59319B/32
HEBE- 06.05.76 HEBENSTREIT GMBH D11 =GB 1550-232
Plates for baking clamps, esp. for waffles - 52418Y/30
HENK 29.08.74 HENKEL KG AUF AKTIEN D25 E36 =CA 1058-041
Conc fluid detergent compsn - 18824X/11
HENK 29.08.74 HENKEL KG AUF AKTIEN D25 E36 =CA 1058-042
Conc aq fluid detergent compsn - 18825X/11
HENK 03.10.74 HENKEL KG AUF AKTIEN D25 E37 =J7 9019-006
Pourable agglomerate contg. aluminosilicate calcium binders - 28683X/16
HENK 04.10.74 HENKEL KG AUF AKTIEN A97 D25 E19 (E37) =CA 1058-046
Washing agent for textiles contg. aluminosilicate calcium binders - 28684X/16
HENK 16.06.75 HENKEL KG AUF AKTIEN D22 E19 =CA 1058-048
Disinfectant compsn. for recirculation toilets, pref. in areoplanes - 96284X/52
*HENK 29.12.77 HENKEL KG AUF AKTIEN D25 E33 *GB 2013-100
Machine washing and cleaning solid material - 58554B/32
HENK 20.01.78 HENKEL KG AUF AKTIEN B03 C03 D13 (C02) =NL 7900-014
Animal feed mixt. for poultry, pigs, etc. - 56404B/31
*HENN/ 01.02.78 HENNING W D12 E14 *DT 2804-184
Meat e.g. sausage treatment with smoking spice colour soln. - 58299B/32
*HERR/ 24.01.78 HERRING M T A D14 *EP ---3-394
Portioning compressible viscous material, e.g. dough in extruder - 58456B/32
HERT/ 20.01.78 HERTTUA K D13 =NL 7900-472
Drink prepd. by water extn. of wood bark and sap - 39012B/21
*HETO 08.06.77 AS USSR HETEROORG CPDS D11 *SU -629-911
Dough for baking protein-rich sweet pastries - 59373B/32
*HITA 09.12.77 HITACHI KK D15 F09 *J5 4080-275
Treating organic sludge discharged from pulp plant - 58706B/32
*HITA 14.12.77 HITACHI KK A88 D15 J01 *J5 4082-379
Supporting tube for semipermeable membrane for use in reverse osmosis - 59125B/32
*HITF 08.12.77 HITACHI SHIPBLD ENGG KK D15 L02 *J5 4079-955
Treatment of heavy metal-contg. sludge from river beds etc. - 58642B/32
*HITF 08.12.77 HITACHI SHIPBLD ENGG KK D15 L02 *J5 4079-956
Treating heavy metals-contg. Hedoro to produce land-fill material - 58643B/32
*HITF 14.12.77 HITACHI SHIPBLD ENGG KK D15 J01 *J5 4082-369
Treating waste sludge with high water content - 59116B/32
*HITF 14.12.77 HITACHI SHIPBLD ENGG KK D15 J01 *J5 4082-370
Dewatering sludge used as land fill - 59117B/32
*HITF 14.12.77 HITACHI SHIPBLD ENGG KK D15 J01 *J5 4082-371
Land reclamation using sludge of high water content - 59118B/32
*HITK 09.12.77 HITACHI METAL KK D21 M26 *J5 4079-996
Low cost amorphous dental alloy - 58649B/32
*HOLM/ 26.01.78 HOLMAN D G A96 D22 *DT 2902-434
Umbilical cord pre-shaping for use as blood vessel implants - 58351B/32
HOPI- 30.06.76 HOPITAL ST NICOLAS SARRE B04 C03 D16 J04 (D13) =FR 2407-983
Liq. media for identifying bacteria esp. enterobacteria - 32152A/18
HORN- 27.07.71 HORNBACH A & W OHG D15 =DS 2137-473
Debris grating/rake assembly - 09881U/08
HUBE 20.12.77 HUBER J M CORP D21 E33 =DK 7801-141
Abrasive silica compsn. for dentifrice paste - 67037A/38
HUBE 20.12.77 HUBER J M CORP D21 E33 =NO 7800-865
Abrasive silica compsn. for dentifrice paste - 67037A/38
HUBE 20.12.77 HUBER J M CORP D21 E33 =NO 7900-502
Abrasive silica compsn. for dentifrice paste - 67037A/38
HUBE 20.12.77 HUBER J M CORP D21 E33 =SW 7802-901
Abrasive silica compsn. for dentifrice paste - 67037A/38
*HUCK- 26.01.78 HUCKFELDT & THORLIC D12 F07 *DT 2803-361
Woven sausage skin - 58216B/32
*HUNF 18.10.76 HUNT FOODS & IND INC D13 *US 4162-011
Appts. for sorting soft from hard fruits - 59664B/32

*ICEB- 01.02.78 ICEBERG TRANSPORT D15 H01 *DT 2900-404
Self stabilising floating tower - 58336B/32
ICIL 26.09.69 IMPERIAL CHEM INDS LTD A91 B04 D16 (A11) =DS 2047-317
Anticoagulant protease (am) obtained from - 21864S/12
ICIL 01.07.75 ICI AUSTRALIA LTD A91 D15 =IL --49-920
Amphoteric polymer prepn. - 06866Y/04
ICIL 03.11.77 IMPERIAL CHEM INDS LTD C03 D22 E19 G02 (D15) =FR 2407-914
2-Nitro-2-bromo-propane-1,3-diol ester and carbamate derivs. - 33363B/18
ICIL 03.11.77 IMPERIAL CHEM INDS LTD A97 C03 D22 G02 (A23 A25) =FR 2407-946
Biocidal polyurethane(s) and polyester(s) - 33362B/18
ICIL 22.12.77 IMPERIAL CHEM INDS LTD C02 D13 =DK 7805-742
Treatment of ruminants with aplasmomycin or related cpds. - 52996B/29
ICIL 22.12.77 IMPERIAL CHEM INDS LTD C02 D13 =NO 7804-326
Treatment of ruminants with aplasmomycin or related cpds. - 52996B/29
ICIL 22.12.77 IMPERIAL CHEM INDS LTD C02 D13 =PT --68-975
Treatment of ruminants with aplasmomycin or related cpds. - 52996B/29
ICIL 23.12.77 IMPERIAL CHEM INDS LTD C03 D22 G02 H08 (D15 G03)

IMPU- 01.07.75 KOMB IMPULSA VEB D13 =GB 1550-138
Butterlike products of low fat content - 59749X/32
*INCH- 06.04.78 IND CHIM ITALIA D23 *BE -875-360
Rotary cage continuous press to extract oil from seeds, etc. - 58060B/32
INFL 30.07.73 INT FLAVORS & FRAGR INC D23 E17 (D13 D18) =CA 1058-442
2-Alkylidene 3-alkenals or their lower dialkylacetals - 12008W/07
INFL 27.01.78 INT FLAVORS & FRAGR INC D23 E15 (D18) =DT 2900-395
1-(2,6,6-Trimethyl-1,3-cyclohexadien-1-yl)-1,3 butane-di:one - 47067B/25
*INFL 19.04.78 INT FLAVORS & FRAGR INC D23 E13 *US 4162-256
Prodn. of perfume cpds. esp. isochroman derivs. - 59738B/32
INFL 21.06.78 INT FLAVORS & FRAGR INC D23 E15 (D13) =US 4162-335
Methyl-thio-butyryl-tri:methyl-cyclohexene and cyclo hexadiene - 67315A/38
INGR- 19.12.77 INGREDIENT TECH COR D17 =SW 7812-919
Crystallisation of sugar from supersaturated solns. - 47612B/26
*INOZ 09.12.77 INOUE D16 E19 *J5 4080-489
Fermentative prepn. of organic acid - 58807B/32
INTE- 18.11.77 INTEROX A97 D15 E33 =BR 7807-565
Polymer coated calcium peroxide particles - 47500B/26
*IRPO= 27.02.76 IRKUT POLY D15 E37 *SU -630-228
Removing non-ferrous metal from aq. soln. - 59472B/32
*ISEN 08.12.77 ISEKI AGRIC MACH MFG KK A88 D13 (A32) *J5 4080-363
Board for sepg. unpolished rice grains from unrefined rice mixt. - 58756B/32
ITSH 28.08.75 INT SHOE MACHINERY CORP D18 =CA 1057-913
Machine for roughing the margin of a shoe upper assembly - 34123Y/19

JAEG/ 19.01.78 JAEGER K H B04 D16 =DT 2802-277
Antiblastic immunological preparations - 39018B/21
JAEG/ 19.01.78 JAEGER K H B04 D16 =NL 7900-365
Antiblastic immunological preparations - 39018B/21
JAGN 24.12.77 JAGENBERG WERKE AG D14 =DK 7805-659
Automatic dispenser of tiny doses of liq. - 31645B/17
JAGN 24.12.77 JAGENBERG WERKE AG D14 =SW 7812-876
Automatic dispenser of tiny doses of liq. - 31645B/17
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =DK 7805-531
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =DK 7805-769
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 =SW 7810-911
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) =SW 7813-181
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
JOHJ 03.03.76 JOHNSON & JOHNSON D22 =GB 1550-280
Surgical drape - 50063Y/28
JOHJ 17.06.77 JOHNSON & JOHNSON A96 D25 E16 =PT --68-184
Mild cosmetic detergent compsn. esp. for shampoos and baths - 91499A/51
*JOHJ 18.01.78 JOHNSON & JOHNSON D21 G02 M13 *US 4162-163
Coating gold (alloy) castings for dental bridges and crowns - 59691B/32
*JOHS 26.01.78 JOHNSON S C & SONS INC D21 E33 (E32) *GB 2013-085
Deodorant and/or antiperspirant stick compsn. - 58550B/32

KALL- 04.04.74 KALLE-REGULATORER A D15 =US 4162-195
Biological test appts. - 57221W/35
*KANE- 02.12.77 KANEBO SHOKUHIN KK D13 *J5 4080-460
Cold-water dispersible foaming drink granules - 58802B/32
KANF 30.03.74 KANEGAFUCHI CHEM KK D16 =J7 9019-462
Cell-free yeast culture medium as yeast growth promoter - 78084Y/44
KAOS 02.02.73 KAO SOAP KK D17 J04 =DS 2404-757
Copper chromium oxide hydrogenation catalysts - 60270V/34
KAOS 01.09.75 KAO SOAP KK A21 D15 (A35) =GB 1550-129
Purifying waste waters contg. formaldehyde condensates - 18456Y/11
KAOS 04.09.75 KAO SOAP KK D25 E12 (E16) =GB 1549-871
Detergent compsn. contg. 3 alkyl ether sulphates - 03971Y/03
KAOS 25.01.78 KAO SOAP KK A97 D25 E33 =GB 2013-259
Detergent compsn. for washing textiles - 56577B/31
KAPA 18.09.75 KANSAI PAINT KK A96 D21 =J5 2036-892
Surface treating compsn. for prevention of tooth decay - 59180B/32
*KAPA 18.09.75 KANSAI PAINT KK A96 D21 *J7 9019-120
Surface treating compsn. for prevention of tooth decay - 59180B/32
KAPA 26.11.75 KANSAI PAINT KK A97 B04 D16 =GB 1550-151
Immobilising enzymes or microbial cells - 41979Y/24
*KATS- 13.12.77 KATSURAYA FINE GOOD A97 D22 *J5 4081-310
Solid deodorant cleaning cpd. for flush toilet - 58962B/32
KATZ/ 07.11.75 KATZEN S C03 D13 (C04 D15) =IL --48-435
Animal feed and fertiliser prepn. - 25146A/13
KERJ 24.12.75 KERNFORSCHUNGS JULICH D16 K05 M25 =DS 2
750
Living cells prodn. for absorbing metals from liqs. - 48957Y/28
KERN- 23.01.78 GES KERNENERGI IN S D15 =NL 7900-223
Water desalination and purification - 54635B/30
*KIKU/ 09.12.77 KIKUCHI K A97 D15 *J5 4079-951
Polymer coagulant for treating sludge from cleaning bed - 58641B/
KIMB 04.11.77 KIMBERLY CLARK CORP D18 =FR 2407-675
Reconstituted tobacco mfr. from whole plants - 37435B/20
KLEE- 16.06.75 KLEEN-RITE/ARUNDALE D15 =IL --49-682
Purificn of waste water polluted with synthetic detergent - 77622X/
*KNAU/ 27.01.78 KNAUTH H D17 F09 *DT 2803-465
Pulp prodn. from plant fibre raw materials - 58225B/32
*KOKA- 09.12.77 KOKANDO KK A97 D23 *J5 4080-433
Storage-stable incense prepn. - 58796B/32
KOKU- 29.05.72 KOKUSAI DUNKO KK D15 =J4 9010-169
Device for converting sea water used for cooling into plain w
59206B/32
*KOKU- 29.05.72 KOKUSAI DUNKO KK D15 *J7 9019-389
Device for converting sea water used for cooling into plain w
59206B/32
*KOKU- 03.12.77 KOKUZEI-CHO CHOKAN D16 *J5 4080-497
Brewing of sake from koji mould - 58814B/32
KOPS 10.06.77 KRUPP-KOPPERS GMBH D15 =US 4162-147
Sewage aeration towers - 91614A/51
*KRAS= 10.09.75 KRASNYI BOR POLYGON D15 *SU -630-336
Industrial effluent skimmer - 59573B/32
*KRUG- 23.12.77 KRUEGER I A/S D14 *DK 7705-783
Concentrator for solid suspended in liq. - B/32
*KUBI 10.12.77 KUBOTA KK D15 *J5 4080-484
Deodorising ammonia-contg. gas from sewage treatment - 58805B/
*KUPO= 04.11.76 KAUN POLY A82 D18 G02 *SU -630-274
Finishing lacquer for chrome leather - 59517B/32
KURE 01.01.76 KUREHA KAGAKU KOGYO A97 B04 D16 =DS 2659-8
Polysaccharides bonded to proteins - 46972Y/27
*KURE 09.12.77 KUREHA CHEM IND KK D12 *J5 4080-456
Corned beef prodn. - 58800B/32
*KURI/ 07.12.77 KURIHARA K C04 D16 *J5 4080-877
Coated calcareous fertiliser - 58848B/32
*KURI/ 08.12.77 KURIHARA K C04 D16 F09 *J5 4080-881
Granular compost for paddy rice, wheat, vegetable etc. - 58850B/32
KUWA/ 03.07.74 KUWABARA H A96 D21 =J7 9019-852
Dental wax for profiling - 15864X/09
*KYOW 07.08.70 KYOWA FERMENTATION KK D12 *J7 9019-454
Mfr. of protein food with good water retention - 59221B/32
*KYOW 05.12.77 KYOWA FERMENTATION KK B05 D16 *J5 4080-490
Fermentative prodn. of l-cysteine and/or l-cystine - 58808B/32

LABO 02.12.77 LABOFINA SA D23 (D13) =J5 4080-291
Hydrogenation catalyst for oils, esp. cooking oils - 27888B/15
LABO 02.12.77 LABOFINA SA D23 (D13) =J5 4080-303
Hydrogenating oils, esp. cooking oils, using nickel catalyst - 27889B/
LABO 27.12.77 LABOFINA SA A97 D25 H03 (D15) =PT --68-980
Surfactant compsn. for treating oil slicks and beaches - 47162B/26
*LAND- 07.04.78 AKA LANDWIRTSCHAFT D16 *DL -135-717
Surplus bio-sludge conversion to agricultural fertiliser - 58124B/32
LANK 19.01.78 LANKRO CHEMICALS LTD A97 D25 =NL 7900-364
Cleansing mixt. forming quick-breaking emulsion with oil - 56559B/3
LASZ/ 07.07.75 LASZLO M D15 J01 M25 =GB 1550-140
Heavy metals pptn. from waste solns or gases - 06116Y/04
LEWI- 06.10.77 LEWIS REFRIGERATION D14 =SW 7904-883
Freezer for food prods. in trays - 31961B/17
*LIDO/ 01.07.77 LIDORENKO N S B06 D21 *SU -629-931
Dental caries treatment and prevention - 59382B/32
LINM 22.12.75 LINDE AG D22 J07 =CA 1058-522
Preserving biological substances, esp. blood, by freezing - 43507Y/25
LIOC 06.04.77 LION DENTIFRICE KK D13 E13 =US 4162-258
Spiro-5-isopropyl-bi:cyclo(3,1.0)hexane-2,2′ oxirane isomer
76755A/43
*LIOC 12.12.77 LION DENTIFRICE KK D23 E14 *J5 4081-250
Mfg. beta-bourbonene for perfumery - 58938B/32
*LIOC 12.12.77 LION DENTIFRICE KK D23 E14 *J5 4081-251
Prepn. of beta-bourbonene, useful in perfume material - 58939B/32
*LUDE/ 26.01.78 LUDECKE A D15 *DT 2803-328
Floats extraction from settling basins - 58213B/32

*MARK/ 14.04.78 MARKGRAF W D22 E36 H03 J06 (E17) *DL -135-815
Activator addition to underground storage reservoirs - 58164B/32
*MCCO/ 27.06.77 MCCORMICK G L D15 *US 4162-218
Water reuse system - 59717B/32
MEIJ 21.07.72 MEIJI CONFECTIONARY B05 C01 D16 =J7 9019-472
Alpha-amino-gamma-methylphosphinyl butyric acid prepn - 55876V/
MEIJ 08.11.77 MEIJI SEIKA KAISHA C03 D16 =FR 2407-671
Herbicidal compsn. contg. antibiotic SF-1293 - 37454B/20

25.11.74 MERCK & CO INC B02 C02 D13 (D16 D22) =CA 1058-104
ad spectrum antibiotic thienamycin - 31696X/17
21.11.75 MERCK & CO INC B02 C02 D22 (D16) *US 4162-324
ibiotics 890 A1 and 890 A2 - 59765B/32
18.04.77 MERCK & CO INC B02 C02 D16 =US 4162-323
ibacterial antibiotic (N)-acetyl-dehydro-thienamycin - 76857A/43
02.06.77 MERCK & CO INC B04 D16 =PT --68-132
tomatic appts. for virus growth - 87850A/49
19.08.77 MERCK & CO INC B02 D16 =US 4162-193
enamycin prepn. from an N-acyl or N-di:acyl deriv. - 18387B/10
25.01.78 MERCK & CO INC B04 C03 D16 =GB 2013-238
ltivating cells or virus using Koch Static Mixing System - 54513B/30
25.01.78 MERCK & CO INC B04 C03 D16 =NL 7900-305
ltivating cells or virus using Koch Static Mixing System - 54513B/30
/ 18.12.75 MICHAELS E B D21 E16 #CA 1058-073
timicrobial active against topical bacteria, fungi and yeast - 768Y/51
04.04.75 MILLIPORE CORP A88 D15 J01 (D22) =CA 1058-096
croporous membrane filter - 81526X/44
25.09.74 MILES LABORATORIES INC D13 F01 (D12) =J7 9019-453
et-spun vegetable protein fibres - 15025X/09
15.09.75 MILES LABORATORIES INC D13 (D12) =IL --50-079
xtured protein concentrate as meat substitute - 00037Y/01
- 03.11.77 MIRODUR ITALIANA D14 J02 =FR 2407-747
achine for simultaneously grinding and mixing several substances - 081B/10
13.12.77 MITSUI MINING & SMELTING D22 F06 *J5 4082-500
ecial fibre with bactericidal activity - 59168B/32
00.00.72 MITSUI TOATSU CHEM INC B05 D16 E16 =J7 9019-471
ysine prodn - 06391V/04
21.01.72 MITSUI TOATSU CHEM INC B05 D16 =J7 9019-469
ysine prodn - 06389V/04
21.01.72 MITSUI TOATSU CHEM INC B05 D16 =J7 9019-470
ysine prodn - 06390V/04
N 26.04.73 MITSUBISHI GAS CHEM IND D16 =J4 9133-581
east cell body prepn. - 59222B/32
N 26.04.73 MITSUBISHI GAS CHEM IND D16 *J7 9019-463
east cell body prepn. - 59222B/32
N 11.05.73 MITSUBISHI GAS CHEM IND D16 =J7 9019-464
ultivation of Hansenula alcolica yeast - 31473W/19
N 05.12.73 MITSUBISHI GAS CHEM IND D16 =J7 9019-465
ultivation of acetic acid assimilating yeast - 02676X/02
N 08.12.77 MITSUBISHI GAS CHEM IND B02 D16 E13 *J5 4080-495
boflavin prodn. - 58813B/32
D 10.08.76 MITSUBISHI HEAVY IND KK D15 J01 =J7 9019-226
et process treatment of waste gas - 26380A/14
D 09.12.77 MITSUBISHI HEAVY IND KK D15 J01 *J5 4080-279
ppts. for removing oil from oily waste liq. - 58708B/32
Q 13.12.77 MITSUBISHI ELECTRIC CORP D22 E36 J01 *J5 4081-169
eodorising and purifying waste combustion gas contg. nitrogen oxide(s 58889B/32
Q 13.12.77 MITSUBISHI ELECTRIC CORP D22 J01 *J5 4081-173
as deodorisation plant - 58893B/32
S 04.11.75 MITSUBISHI PRECISIO D15 J02 (D16) =CA 1058-158
ubble generator without revolving parts - 34726Y/20
J 26.11.75 MITSUBISHI CHEM IND KK A91 D15 =J7 9019-227
ater purification - 49284Y/28
R- 10.12.77 MIURA SEISAKUSHO KK D25 J01 *J5 4080-286
etergent compsn. for ion exchange resin - 58713B/32
L- 23.11.77 MJOLKCENTRALEN EKON D13 =FR 2407-673
ow calorie margarine mfr. - 24016B/13
L- 23.11.77 MJOLKCENTRALEN EKON D13 =FR 2407-674
rotein concentrate prodn. from skimmed milk - 24015B/13
W 12.12.75 MALLINCKRODT INC D13 =GB 1550-008
ry powder flavouring agents - 41732Y/24
BI 05.08.74 MOBIL OIL CORP D25 E13 H07 (H06) =CA 1058-190
xazolines derivs. of alkenylsuccinic acid cpds - 14363X/08
CH 30.09.76 MOCHIDA SEIYAKU KK B04 D16 J04 =GB 1550-320
mmunochemical assay using labelled antibody - 27221A/15
CH/ 07.12.77 MOCHIDA N A96 D21 (A17 A26) =J5 4080-428
olid powder stick for cosmetics and toiletry use - 45948B/25
FO= 23.06.77 MOSC FOOD IND TECH D16 *SU -630-292
randy-type spirit prodn. - 59532B/32
KR= 30.06.77 MOSC KRASNYI OKTYAB D13 *SU -629-913
andy mass shaper - 59374B/32
LN 21.12.77 MOLNLYCKE AB D22 =DK 7805-729
ntravaginal period sanitary tampon with extraction cord - 47149B/26
LN 21.12.77 MOLNLYCKE AB D22 =NO 7804-223
ntravaginal period sanitary tampon with extraction cord - 47149B/26
LN 21.12.77 MOLNLYCKE AB D22 =PT --68-925
ntravaginal period sanitary tampon with extraction cord - 47149B/26
LN 21.12.77 MOLNLYCKE AB D22 =SW 7714-598
ntravaginal period sanitary tampon with extraction cord - 47149B/26
MA= 30.06.77 MOSC MAGARACH WINE D16 *SU -630-290
lcohol aperitif-type drink - 59530B/32

*MOMD 01.06.77 MOSCOW MEAT DAIRY INST D14 *SU -629-915
Food conserves prodn. appts. - 59376B/32
MOMD 24.08.77 MOSCOW MEAT DAIRY INST D16 (D12 D15) #GB 1549-959
Nutritious medium for fodder yeast mfd. from manure, etc. - 66864Y/38
MONS 05.08.74 MONSANTO CO A88 D15 E14 J01 =CA 1058-525
Phenols sepn from aq feed with polymeric membrane - 13081X/08
*MONS 05.01.78 MONSANTO CO D25 E14 *US 4162-236
Reduced hygroscopicity alkylbenzene sulphonate detergents - 59728B/32
MOOC 08.08.68 MO OCH DOMSJO AB D25 E11 =DS 1938-718
Low phosphate, non corrosive washing compositions - 10033R/07
*MORI/ 05.12.77 MORIYAMA M C03 D13 *J5 4080-889
Nutritious animal feed - 58851B/32
*MORI/ 09.12.77 MORI M A88 D15 J01 *J5 4081-564
Filtering waste water - 59033B/32
*MRSC 03.08.78 MARS INC D11 *US 4162-333
Filled food product manufacture - 59767B/32
MUHL/ 13.08.73 MUHLER J C D21 =CA 1058-521
Purifying and abrasive agent for dentures - 43539W/26

*NAAP- 24.11.76 NAT APPLI CO D16 *US 4162-196
Adaptor collar for fastening laboratory jar to housing - 59704B/32
NACO- 31.03.75 NATIONAL CONVENIENC D11 =CA 1058-441
Baking pizzas using micro-wave energy - 66693X/35
*NAGA 27.01.78 VEB KOMBINAT NAGEMA D12 *DT 2843-624
Sausage filling machine - 58327B/32
*NAGA/ 22.11.77 NAGATA T C04 D16 *J5 4080-879
Calcium-contg. compost prodn. - 58849B/32
*NCPO= 01.12.76 NOVCH POLY D15 J01 *SU -629-950
Water purifying micro-filter - 59391B/32
NEST 20.01.78 SOC PROD NESTLE SA D13 =GB 2013-075
Coffee extract for preparing non-spurting carbonated beverage - 56550B/31
NEST 25.01.78 SOC PROD NESTLE SA D12 E17 =NL 7900-574
Aromatising material imparting pork flavour - 56529B/31
*NEWA/ 29.12.77 NEWALL P J D16 E17 H09 *GB 2013-170
Methane prodn. from wastes - 58562B/32
NIED/ 15.06.68 NIEDECKER H D12 #BE -875-403
Tube closure device for use in packaging - 34821R/20
NIMA- 12.09.74 NIPPON MAG ORE SEP D15 L02 =J7 9019-876
Heavy metal ions removed from factory or mine waste water - 32878X/18
*NIOF 06.12.77 NIPPON OILS & FATS KK D13 *J5 4080-462
Prepn. of butter flavour - 58803B/32
*NIOF 09.12.77 NIPPON OILS & FATS KK A26 D21 E16 F06 (A87 A96) *J5 4080-399
Quat. ammonium salt polymer - 58781B/32
*NIRA 09.12.77 UNITIKA KK A96 D22 (A23 A35) *J5 4079-997
Antithrombotic shaped polyester article prepn. - 58650B/32
*NIRA 12.12.77 UNITIKA KK A91 D15 J01 M25 *J5 4081-183
Hydrophilic heavy metal adsorbent esp. for mercury - 58903B/32
*NIRA 12.12.77 UNITIKA KK A91 D15 J01 M25 *J5 4081-184
Highly selective adsorbent for metal recovery from soln. - 58904B/32
*NISY 14.11.77 NIPPON SYNTH CHEM IND D22 *J5 4080-424
Solid deodorant and aromatic compsn. - 58793B/32
*NITL 05.12.77 NITTO ELECTRIC IND KK A92 C03 D22 E14 *J5 4080-416
Preventing propagation of bacteria, fungi and insects - 58789B/32
*NITL 05.12.77 NITTO ELECTRIC IND KK A92 C03 D22 E14 *J5 4080-417
Preventing propagation of bacteria, fungi and harmful insects - 58790B/32
*NONF= 13.04.76 NONFER METAL ORES D15 J04 *SU -630-550
Drain water sampling in proportion to flow volume - 59620B/32
*NOVO 06.02.78 NOVO IND A/S D13 *BE -873-932
Decolourised blood human foodstuffs - 58024B/32
*NREN 12.12.77 NIHON RENSUI KK D15 J01 *J5 4081-185
Regenerating ion exchange resin in a fixed bed - 58905B/32

*ODFO= 22.06.77 ODESS FOOD IND TECH D13 *SU -629-914
Processing buckwheat grains for use in food - 59375B/32
*OHBA 14.12.77 OHBAYASHIGUMI KK D15 E37 *J5 4082-368
Oxidn. of waste soil, sludge etc. - 59115B/32
OLIN 18.10.71 OLIN CORP B03 C01 D21 E12 (D22) =J5 4081-311
Bis(2-pyridyl-1-oxide) disulphide adducts with alkaline - 25913U/19
*OLTM/ 27.01.78 OLTMANNS H A32 D15 F04 *DT 2803-472
Tangled thread mats for water works - 58226B/32
OMNI 29.12.77 OMNIUM DASSAINISSEM D15 #BR 7708-753
Purificn. of waste water by percolation through activated carbon - 29152A/16
ONTA 15.12.76 ONTARIO RES FOUND D22 M22 =GB 1550-010
Surgical prosthesis or implant - 50017A/28
ONTA 02.12.77 ONTARIO RES FOUND D15 #J5 4079-952
Aq. effluent purification - 38768A/22
OREA 22.03.73 L'OREAL SA D21 E17 =CA 1058-633
Glycerol derivs used as cosmetic oils - 71489V/41
OREA 31.12.74 L'OREAL SA B05 D21 E16 (E14) =CA 1058-618
Novel sulphoxide derivs of cysteamine and compns - 54190X/29

OREA 21.04.76 L'OREAL SA D21 E24 =GB 1549-752
(3)-Nitro-(4)-hydroxy-ethylamino phenol and ring alkyl derivs. - 75874Y/43
*OREA 02.02.78 L'OREAL SA A96 B04 D21 (D22) *BE -873-865
Conserving aq. dispersions of liposome microcapsules - 58011B/32
*ORIY 00.00.78 ORIENTAL YEAST KK B02 D16 *J5 4080-493
NAD prodn. using Saccharomyces or Candida culture - 58811B/32
*ORIY 00.00.78 ORIENTAL YEAST KK B02 D16 *J5 4080-494
NAD prodn. using Saccharomyces or Candida culture - 58812B/32
*ORSI/ 04.11.77 ORSING J H D14 H09 *FR 2408-279
Smoking and grilling fuel element for foodstuffs - 58528B/32
*OSHI- 08.12.77 OSHIO SANGYO KK D15 *J5 4079-950
Construction filling material mfr. - 58640B/32
OSMO- 01.02.72 OSMONICS INC D15 J01 #J4 7029-284
Reverse osmosis water purifier - 56768T/36
OSMO- 01.02.72 OSMONICS INC D15 J01 #J7 9019-393
Reverse osmosis water purifier - 56768T/36
OTTC 18.01.77 OTTO DR C & CO GMBH D15 E14 =GB 1550-109
Treating aq. effluent esp. to remove phenol cpds. - 32162A/18

PAMF= 22.04.75 PAMFILOV COMM WATER C04 D15 #CA 1058-777
Coagulating waste sludge streams by addn. of dried sludge - 86321X/46
PARC- 14.02.74 PARCA NORRAHAMMAR D15 =DS 2505-722
Sewage purification using rotary discs - 42714W/26
PASE 18.01.78 PASSAVANTW MICHELBACHER D15 =EP ---3-327
Chemical-mechanical water treatment process - 54792B/30
PENN 13.12.74 PENNWALT CORP D21 M22 =CA 1058-024
Tabletting spherical dental amalgam alloy - 09199X/05
PERU 03.01.78 PERMUTIT LTD D15 =GB 2013-171
Softening water by ion exchange - 52745B/29
*PETR- 03.02.78 PETRIS C F EFTF D13 *BE -873-914
Chewing gum contg. sorbitol as sweetener - 58020B/32
PFIZ 18.02.71 PFIZER INC B05 D16 E17 H04 =J7 9019-474
D-mannitol prodn - 56763T/36
PFIZ 15.11.77 PFIZER INC D16 H01 =BR 7807-431
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
PFIZ 18.11.77 PFIZER INC B05 D16 E17 =BR 7807-524
2,5-Di:keto-gluconic acid preparation - 38984B/21
PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =GB 2013-179
4-Deoxy-4-aryl-glyoxamido and aroyl thio:formamido-oleandomycin(s) - 49016B/27
PFIZ 03.01.78 PFIZER INC B03 C02 D22 E13 (D15) =GB 2013-181
Antibacterial 4-de:oxy-4-acylamido macrolide cpds. - 49015B/27
PHIP 06.12.74 PHILLIPS PETROLEUM CO D16 =CA 1058-539
Monocellular protein prodn - 18860X/11
PHIP 06.12.74 PHILLIPS PETROLEUM CO D16 =DS 2554-118
Monocellular protein prodn - 18860X/11
PITM 25.03.74 PITMAN-MOORE INC B04 C03 D16 =CA 1058-074
Attenuation of virulent feline rhinotracheitis virus - 67675W/41
*POPI= 27.01.77 POLT PIG FARMING B07 C03 D16 J04 *SU -629-500
Determn. of trans-ketolase activity in boar sperm - 59351B/32
PRIN 26.01.78 PRINCETON APP RES D15 J04 =DT 2902-869
Effluent stream analysis appts. using mercury drop electrode - 21891B/11
PROC 31.01.74 PROCTER & GAMBLE CO D25 E19 =CA 1057-907
Detergent compsn contg. smectite clay - 54025W/33
PROC 25.06.74 PROCTER & GAMBLE CO A97 D25 (A23 A25) =CA 1058-044
Ethylene terephthalate and polyoxyethylene terephthalate copolymer - 03837X/03
PROC 12.02.75 PROCTER & GAMBLE CO D13 E17 =CA 1058-202
Mixed esters of polyols pref. synthetic cocoa butter - 64999X/35
PROC 14.02.75 PROCTER & GAMBLE CO D25 E34 =CA 1058-043
Silicate-pyrophosphate detergent compsn - 67249X/36
PROC 14.07.75 PROCTER & GAMBLE CO A87 D25 E19 F06 =GB 1550-205
Textile softening compsns. for adding to rinsing baths - 09275Y/06
PROC 14.07.75 PROCTER & GAMBLE CO A87 D25 E19 F06 =GB 1550-206
Textile softening compsns. for adding to rinsing baths - 09275Y/06
PROC 23.07.75 PROCTER & GAMBLE CO A97 D25 =CA 1058-045
Spray-dried, whitening washing powder compsn. - 09278Y/06
PROC 17.11.77 PROCTER & GAMBLE CO A97 D25 E16 (E14) =BR 7807-523
Granular detergent contg. alkoxylated cationic surfactant - 40967B/22
*PROC 11.01.78 PROCTER & GAMBLE CO A97 D25 E12 (E13) *EP ---3-371
Bleach compsn. contg. cationic cpd. and porphin photoactivator - 58446B/32

*QUAK 19.06.78 QUAKER OATS CO C03 D12 *BE -873-617
Extruded foods esp. meat products for pet foods - 58003B/32

RACO- 19.11.73 RACOR INDS INC D15 J01 =DS 2436-080
Fluid separation by differing densities - 36170W/22
RALS 19.07.74 RALSTON PURINA CO C03 D13 =CA 1058-001
Adding sulphur to pig food - 09642X/06
RALS 28.07.75 RALSTON PURINA CO D13 =CA 1058-006
Protein fortified whole grain cereal compsn. prepn. - 63363A/35
RALS 01.11.77 RALSTON PURINA CO D13 #GB 1549-891
Proteinaceous food product prodn. of good toughness - 17550A/09
RATI- 01.02.78 VEB RATIONALIS HALL D16 =DT 2902-114
Accelerating the maturing of spirits - 39132B/21
REAL- 10.01.78 REALDYME D13 =GB 2013-077
Increasing the nutritional value of wheat milling wastes - 49000B/2
REGC 19.03.71 UNIV OF CALIFORNIA B04 D16 =DS 2213-134
D-vanillylmandelic acid determination in biological sample - 62235
*RENS 07.11.77 RENGO CO LTD D14 J01 *FR 2407-872
Sealable container for preserving food and flowers - 58509B/32
RESE 20.04.71 RESEARCH CORP B04 D13 (D16) =DS 2219-063
Enzymatically-active membranes - 73218T/46
*RESE- 28.09.78 JURIDICAL FOUNDATIO B04 D16 *US 4162-192
Purificn. of hepatitis B surface antigen from blood plasma or se
59703B/32
RHEE 04.11.77 RHEEM MFG CO D12 =FR 2407-672
Stuffing horn assembly with separate horns - 21796B/11
RHON 30.10.70 RHONE-POULENC S A D16 (D11 D25) =DS 2154-031
Proteolytic enzyme 25048 rp - 31257T/20
RHON 10.02.77 RHONE-POULENC INDUSTRIES D13 F01 (D12) =
2805-507
Meat-like, spun protein filaments - 62885A/35
RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A2
=FR 2407-980
Anti-soil and anti-redeposition detergent compsn. - 33374B/18
RIEG 25.07.74 RIEGEL TEXTILE CORP D22 F04 =CA 1058-125
Disposable diapers from laminate of permeable and impermeable l
- 72826W/44
*RIKA 27.11.74 RIKAGAKU RES LABS KK C03 D13 *J5 4080-413
Agricultural fungicide contg. sodium bi:carbonate as active ag
58787B/32
ROHG 20.12.77 ROHM GMBH C03 D13 =SW 7813-079
Animal protein hydrolysates useful for animal feedstuffs - 53143B/29
*ROHL/ 07.04.78 ROHL A A97 D18 *DL -135-735
Rigid or soft pig skin leather prodn. - 58138B/32
RUTH/ 02.11.77 RUTHNER O D16 =FR 2407-663
Continuous mushroom prodn. - 35669B/19

SAAR- 01.12.77 SAARBERG-FERNWARME D15 =EP ---3-216
Thermal sewage sludge treatment - 42492B/23
*SAFA= 01.12.76 SARAT FARM HYGIENE D13 J04 *SU -629-498
Estimation of 2,4-di:chlorophenoxy-acetic acid herbicide in gra
59349B/32
*SAOC 09.12.77 SANRAKU OCEAN B02 D16 *J5 4081-288
Antibacterial 16-membered macrolide deriv. prodn. - 58950B/32
*SCHD 25.01.78 SCHERING AG B01 D16 *EP ---3-341
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acet
58435B/32
*SCHD 21.07.78 SCHERING AG B05 D16 *DS 2832-602
Stereospecific prodn. of 1-aryl-2-propanol cpds. - 58189B/32
*SCHM/ 04.06.76 SCHMID L A D15 *CA 1058-776
Modular aerator and separator for sewage plant - 58085B/32
SCHR/ 23.12.77 SCHREIBER A D15 =DK 7805-805
Compact plant for activated sludge treatment of waste water - 47189B
SCHW- 12.09.74 SCHWARZHAUPT KG B04 D16 =IL --48-071
Determination of iso-enzymes of lactate dehydrogenase - 09287X/06
*SEGK 07.12.77 SEIKAGAKU KK D16 *J5 4080-487
Culturing Streptomyces sp IID 6646 to produce neuraminidas
58806B/32
*SEKI/ 13.12.77 SEKI T D15 *J5 4081-666
Treatment of polluted water, sludge and night soil - 59037B/32
SHEL 14.03.75 SHELL CANADA LTD C03 D16 H04 =CA 1058-105
Growing methane using microorganisms - 73963X/40
SHEL 30.11.76 SHELL INT RES MIJ BV D25 E12 =GB 1550-001
Sec. mono:alkyl sulphuric acid salts, useful detergents - 38493A/22
SHEL 03.12.76 SHELL INT RES MIJ BV D23 E15 =GB 1550-004
1,2-Di:alkyl-3-formyl:alkyl-1-cyclopentanol cpds. - 42515A/24
SHIE 12.12.77 SHINETSU CHEM IND KK C02 D13 E13 =J5 4081-273
Tetra:hydro-pyranone derivs. - 44451B/24
SHIO 20.09.74 SHIONOGI KK B05 D16 E17 =J7 9019-468
2-Keto-L-gulonic acid prepn from D-glucose by fermentation - 26705X/
SHIS/ 04.11.77 SHISHKOVA Z P C03 D16 (D13) #FR 2407-981
Culture media contg. vegetable matter and peat hydrolysate
26539B/14
SIEI 01.02.78 SIEMENS AG D15 E19 J04 =DT 2804-267
Automatic determn. of organic substances in water - 40684B/22
SIEI 01.02.78 SIEMENS AG D15 J04 =DT 2804-287
Determn. of dissolved organic solids content in water - 42426B/23
SIEI 01.02.78 SIEMENS AG D15 J04 =DT 2804-316
Automatic dosing of predetermined quantities of several liquid
42427B/23
*SLAG- 06.02.78 SLAGTERIERNES FORSK D13 *BE -873-932
Decolourised blood human foodstuffs - 58024B/32
SNAM 10.07.75 SNAMPROGETTI SPA A96 B04 D16 =GB 1550-153

16.09.71 SNOW BRAND MILK PRODUCTS D13 =J4 8036-357
ng soybean without producing soybean odour - 59220B/32
16.09.71 SNOW BRAND MILK PRODUCTS D13 *J7 9019-451
ing soybean without producing soybean odour - 59220B/32
05.07.72 SNOW BRAND MILK PRODUCTS D13 =J4 9026-439
on. of frozen foods contg. mayonnaise - 59218B/32
05.07.72 SNOW BRAND MILK PRODUCTS D13 *J7 9019-448
on. of frozen foods contg. mayonnaise - 59218B/32
09.12.77 SNOW BRAND MILK PRODUCTS D13 *J5 4080-458
vdery bean milk prepn. - 58801B/32
23.12.77 SOLCO BASEL AG B04 D16 =DK 7805-621
ero-vaccine for treatment of trichomonas syndrome - 47144B/26
23.12.77 SOLCO BASEL AG B04 D16 =SW 7813-201
ero-vaccine for treatment of trichomonas syndrome - 47144B/26
06.12.77 SODA KORYO KK D23 E13 *J5 4080-432
fume compsn. for cosmetics, foods, dentifrices etc. - 58795B/32
21.12.77 SOUTHLAND CORP D13 E17 (D21 E12) =DK 7805-670
ily dispersible powdered hydrated emulsifiers - 54385B/29
21.12.77 SOUTHLAND CORP D13 E17 (D21 E12) =NO 7804-294
ily dispersible powdered hydrated emulsifiers - 54385B/29
/ 20.04.78 SPRANGER H D12 *DL -135-798
n loading device for processing machines - 58156B/32
- 22.12.77 STAMAG STADLAUER MA D11 =NO 7804-000
kery prod. partic crisp biscuit with high bran content - 29793B/16
- 22.12.77 STAMAG STADLAUER D11 =SW 7813-134
kery prod. partic crisp biscuit with high bran content - 29793B/16
20.01.75 STAUFFER CHEMICAL CO B05 C03 D22 H01 (D15) =CA
199
-Dichloro-acetone oxime alkyl carbonates - 58200X/31
30.05.75 STAUFFER CHEMICAL CO D13 E12 =CA 1058-004
covering protein from liquid acid whey - 94590X/51
22.12.77 STEC SOC TECH CHIMI D15 J01 *PT --68-958
cculation of liquids and solids before filtration - B/32
01.02.78 STEINMULLER L & C GMBH D15 *DT 2804-164
carbonisation of cooling tower water in e.g. coal power stations -
297B/32
- 27.01.78 FA STENZEL P D12 *DT 2803-511
usage loop presentation device - 58235B/32
/ 23.08.76 STEPHAN J T A97 C03 D13 #CA 1058-002
eating hardened fish eggs with acidic urea soln - 81122X/43
07.11.77 STERLING DRUG INC D15 =FR 2407-895
ompressing injection air for wet oxidn. purificn. of organic waste -
356B/18
23.12.77 STERLING DRUG INC D22 L02 =DK 7805-721
eta whitlockite prepn. in solid or porous form - 47146B/26
23.12.77 STERLING DRUG INC D22 L02 =PT --68-927
eta whitlockite prepn. in solid or porous form - 47146B/26
23.12.77 STERLING DRUG INC D22 L02 =SW 7813-143
eta whitlockite prepn. in solid or porous form - 47146B/26
- 01.02.78 STREITER F KG D12 *DT 2804-191
ot dogs in brine - 58301B/32
31.08.73 STORK AMSTERDAM BV D17 (D23) =IL --45-519
as treatment of finely divided goods in oscillating chute - 17984W/11
)/ 30.06.75 STUDEMANN H L D15 =DL -120-799
olid matter separation from suspensions, esp industrial effluents -
5886X/36
O 26.05.75 SUMITOMO CHEMICAL KK A12 D21 E17 (A96) =DS 2623-

ydrogenated polyisoprene oil of low molecular wt. - 92893X/50
O 05.11.75 SUMITOMO CHEMICAL KK A12 D21 E17 (A96) =J7 9019-

ydrogenated polyisoprene oil of low molecular wt. - 92893X/50
O 05.11.77 SUMITOMO CHEMICAL KK A97 B04 D16 =FR 2407-945
nmobilised enzyme carrier of macroporous anion exchange resin -
7364B/20
O 19.01.78 SUMITOMO CHEMICAL KK D15 J04 =DT 2902-056
nalysis of total nitrogen content of aq. systems - 54496B/30
O 19.01.78 SUMITOMO CHEMICAL KK D15 J04 =NL 7900-450
nalysis of total nitrogen content of aq. systems - 54496B/30
O 27.01.78 SUMITOMO CHEMICAL KK D15 E36 J04 =DT 2902-876
nalysis of nitrogen derived from nitrites and nitrates - 56291B/31
O 27.01.78 SUMITOMO CHEMICAL KK D15 E36 J04 =GB 2013-339
nalysis of nitrogen derived from nitrites and nitrates - 56291B/31
E- 25.01.78 SVENSKA MEJERIERN D13 =NL 7900-073
ontinuous prodn. of buttery prod. spreadable at low temps. - 37197B/20
A- 20.01.78 SOC SYMAC A31 D14 J02 =NL 7900-484
ontinuous mixer for particulate solids and liquids - 54500B/30

H- 09.12.77 TAIHO SANGYO KK A97 D21 E12 (A14) *J5 4080-304
repn. of anti-staining agent from fat or oil - 58727B/32
E 31.03.77 TAKEDA CHEMICAL IND KK B04 D16 =PT --67-853
ytostatic maytansinol, maytanacin and maytansinol propionate prodn. -
3052A/41
E 31.03.77 TAKEDA CHEMICAL IND KK B02 C02 D16 =PT --67-854
ntibiotic complex C-15003 prepd. from Nocardia species - 72710A/41
E 07.11.77 TAKEDA CHEMICAL IND KK D14 J01 *FR 2407-872
ealable container for preserving food and flowers - 58509B/32

*TANA 02.12.77 TANABE PHARMACEUTICAL KK D13 *J5 4080-451
Peach nectar mfr. from peach waste and peach lees - 58798B/32
TEEP 22.10.74 TEE PAK INC D11 =CA 1058-005
Collagen sausage casing prodn. - 07423X/04
TEIJ 08.02.72 TEIJIN KK A91 D15 J01 (A26) =J7 9019-395
Permselective membrane - 12398U/09
TENC 29.11.74 TENNECO CHEMICALS A96 B05 C03 D22 (B03 C02) =CA 1058-071
Iodine and tert. amine oxide compsns - 31928X/18
TETR 07.10.76 TETRA PAK INT AB D22 =DS 2744-638
Beverage e.g. milk, package steriliser - 29061A/16
TETR 23.01.78 TETRA PAK DEV D12 =NL 7900-522
Working up fish raw material for human nutrition - 56545B/31
TEXC 18.03.76 TEXACO DEV CORP A41 D15 E16 =GB 1549-950
Stable (N)-(omega)-monoalkyl aminoalkyl-(meth acrylamides 46816Y/26
THET- 11.11.77 THETFORD CORP D15 =BR 7807-387
Bacteriological closed loop toilet waste system - 40979B/22
THOM 05.11.77 THOMAE K GMBH B02 D13 E13 =FR 2407-934
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
*TIFL= 20.06.77 TIFLIS BRANDY COMB D16 *SU -630-291
Prodn. of brandy-type spirit - 59531B/32
*TIPE- 04.04.78 TIPE REVENT AB D11 *BE -875-318
Grill oven with access in one vertical side - 58051B/32
*TOKE 14.12.77 TOKYO SHIBAURA ELEC LTD D15 *J5 4082-382
Domestic water purifier - 59127B/32
TOPF- 21.03.75 TOP FOODS ELBURG BV D13 #CA 1058-007
Tuber preservation system - 19648W/12
*TOYJ 09.12.77 TOYO SODA KK D15 E36 J03 *J5 4080-294
Purificn. of crude saline water from diaphragm electrolysis liquor - 58719B/32
*TUBE- 04.01.78 TUBESTIRS LTD A92 D17 (A17) *EP ---3-390
Stirring and dispensing device - 58453B/32

*ULEA= 08.10.75 UKR LEATHER SHOE D18 *SU -630-294
Hides liquid finishing treatment drum - 59534B/32
UNIC 26.04.74 UNION CARBIDE CORP D15 =J7 9019-114
Removing hydrogen sulphide from waste fluid - 27291W/16
*UNIC 25.10.77 UNION CARBIDE CORP A88 D15 J01 (A25) *US 4162-216
Filtration removal of suspended solids from liquid - 59716B/32
UNIC 03.11.77 UNION CARBIDE CORP A97 D12 (A11 A21 A23) =US 4161-968
Peelable cellulosic casing for food prods. - 37518B/20
UNIC 27.01.78 UNION CARBIDE CORP D12 =DT 2902-754
Wrapping for food products esp. sausages - 56294B/31
UNIL 10.07.70 UNILEVER NV D25 =DS 2134-215
Detergent powder - 04699T/03
UNIL 12.07.72 UNILEVER NV D13 E13 =DS 2335-277
Food flavouring agents - 08645V/05
UNIL 14.04.75 UNILEVER LTD A92 D13 =GB 1550-000
Vented packs for aseptic pasteurised food - 79419X/43
UNIL 24.10.75 UNILEVER LTD D25 E24 (E13) =GB 1550-196
Triazine derivs. removal from stilbenic fluorescent agents - 31318Y/18
UNIL 26.03.76 LEVER BROS CO D21 =US 4162-288
Injecting liq. into extruded detergent - 68807Y/39
UNIL 10.09.76 LEVER BROS CO C03 D23 =US 4162-260
Purifying tri:glyceride cpds. by adding hydratable phosphatide - 19676A/11
*UNIL 31.05.77 LEVER BROS CO D25 *US 4162-228
Coloured nonionic detergent flake prepn. - 59724B/32
UNIL 18.11.77 UNILEVER NV D25 E19 (E37) =BR 7807-568
Aq. bleaching compsn., esp. hypochlorite, coloured by pigment - 38987B/21
UNIL 19.12.77 UNILEVER NV D23 E17 =NO 7804-259
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
UNIL 19.12.77 UNILEVER NV D23 E17 =SW 7813-005
Selective hydrogenation of polyunsaturated cpds, esp. oils - 45715B/25
UNIL 22.12.77 UNILEVER NV A97 D25 E19 (A25) =DK 7805-747
Aq. detergent compsn. esp. for dish washing - 47208B/26
UNIL 22.12.77 UNILEVER NV A97 D25 E19 (A25) =NO 7804-258
Aq. detergent compsn. esp. for dish washing - 47208B/26
UNIL 22.12.77 UNILEVER NV A97 D25 E19 =NO 7804-260
Stable liq. detergents with low hydrotrope content - 49430B/27
UNIL 22.12.77 UNILEVER NV A97 D25 E19 (A25) =SW 7813-213
Aq. detergent compsn. esp. for dish washing - 47208B/26
*UNIL 31.01.79 UNILEVER NV A97 C03 D13 *BE -873-858
Granulation of foodstuff esp. for fish - 58008B/32
*UNIL 31.01.79 UNILEVER NV A97 C03 D13 *BE -873-859
Foodstuff for very small fish - 58009B/32
*UNOK/ 06.12.77 UNO K C03 D13 *J5 4080-893
Imitation bait for fishing - 58852B/32
UNTC 25.11.77 ECODYNE CORP D15 E37 =J5 4082-398
Salt water, e.g. sea water desalination - 42680B/23
UNVO 26.09.74 UOP INC A97 D15 E19 =CA 1058-047
Inhibiting deposition of boiler scale - 28598X/16
UNVO 18.02.75 UOP INC A97 B04 D16 =CA 1058-538
Immobilised enzyme prod. based on porous inorganic support - 54220X/29

•UNVO 08.03.77 UOP INC C04 D15 *US 4161-825
Plasticised compsn. comprising dried sewage sludge - 59645B/32
UNVO 25.11.77 UOP INC A88 D15 E36 J01 =J5 4082-380
Gas separation membrane with semipermeable thin film - 45910B/25
USAT 06.12.74 US ENERGY R & D ADMIN D15 K07 =CA 1057-947
Precipitating radioactive ions from waste solns. - 33971X/19
UYFL- 30.06.76 UNIV FLORIDA A89 B04 D16 J01 (A18) =US 4162-355
Amino-imide copolymers contg. halomethyl gps. - 04627A/03
•UYLI- 23.03.79 UNIV LIBRE BRUXELLE B04 D16 *BE -875-073
Non-lethal dNA virus derivs. - 58036B/32

VEKE- 30.09.77 VER KESSELWERKE AG D15 =DS 2744-050
Packing for trickling water tower - 28032B/15
•VEVG- 06.02.78 VER VAN GEBRUIKERS D15 *BE -873-958
Anaerobic treatment plant for effluent - 58028B/32
•VOIJ 28.01.78 VOITH J M GMBH D15 E12 F09 *DT 2803-700
Purifying waste water from old paper processing - 58253B/32
VOIJ 28.01.78 VOITH J M GMBH D15 E12 F09 =GB 2013-169
Purifying waste water from old paper processing - 58253B/32
•VOLG= 17.07.74 VOLGA DON SYNTH FAT D15 *SU -630-225
Removal of impurities from aq. sodium sulphate contg. waste - 59469B/32
VOLK- 23.10.75 VEB VOLKSWERFT STRA D12 =SU -629-912
Removal of pin bones from fish fillets - 92527X/50
VYRM- 13.02.69 VYRMETODER AB D15 =DS 1945-605
Removing iron from deep earth well water - 57365R/32
VYRM- 21.12.77 VYRMETODER AB D16 H01 =SW 7714-619
Gas prodn. from earth formations - 33316B/17

WARN 21.09.77 WARNER-LAMBERT CO A96 D21 =DT 2840-756
Prosthetic denture - 26559B/14
WARN 02.11.77 WARNER-LAMBERT CO D21 E33 (E12) #FR 2407-713
Stick deodorant contg. stearate and rice starch - 33420A/19
WARN 02.02.78 WARNER-LAMBERT CO A97 D13 =BE -873-866
Sugarless centre-filled chewing gum - 45645B/24
WEIS- 21.12.77 GEBRUDER WEISS KG D16 =SW 7804-551
Organic garbage composting plant - 44109B/24
WERN 25.01.78 WERNER & PFLEIDERER D11 =NL 7900-602
Baking oven heat exchanger - 02020B/02
WESE 15.04.70 WESTINGHOUSE ELEC CORP A88 D15 J01 (A11 A28 D13) =J7 9019-397
Supported tubular semipermeable membranesfor - 69845S/44
WESI 27.01.75 WEST LABORATORIES INC A96 D22 E37 =CA 1058-072
Solid iodine carriers contg. polyvinyl pyrrolidone - 28932Y/16
•WIEG- 31.01.78 WIEGAND KARLSRUHE D13 J01 *DT 2804-108
Fluid evaporation plant esp. for milk - 58291B/32
•WINE- 29.08.77 WINE BREATHER INC D16 *US 4162-129
Wine breather - 59678B/32
•WINK/ 04.04.78 WINKLER O D12 *DL -135-681
Fish transporting device - 58111B/32
•WITT/ 27.01.78 WITTKOWSKI H D D22 *DT 2803-500
Two/part baby's napkin - 58234B/32
•WOLF/ 31.01.78 WOLFEL P D11 *DT 2804-033
Gingerbread spreading machine - 58285B/32
WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =BR 7807-344
Wood protection against moisture-induced decay - 18077B/10
•WORC/ 19.04.78 WORCH J D16 *DL -135-828
Sparkling wine manufacture - 58170B/32
WURT- 02.04.79 WURTTEMBER PARFUM D21 E24 #BE -875-274
Dentifrice powder or paste contg. dye and surfactant - 33519B/18

•YAMA- 12.12.77 YAMANASHIKEN D15 E36 J01 M11 *J5 4081-170
Appts. for treating cyanide gas and water obtd. in electropolishing - 58890B/32
•YAMS 05.12.77 YAMASA SHOYU KK D16 *J5 4080-498
Conc. syoyu prepn. - 58815B/32
•YAWA 09.12.77 NIPPON STEEL CORP D15 J01 M25 *J5 4080-273
Heavy metal removal from waste aq. solns. or suspensions - 58704B/32

ZIEG/ 03.06.76 ZIEGLER R D11 =CA 1058-450
Dough extracting and metering device - 90463Y/51

DE
2-138 R07
8-718 R08
5-278 R32
3-296 S25
2-582 S44
7-217 T11
5-569 T18
0-281 T33
8-718 B32

DE
5-680 R19
5-502 R26
0-031 R33
9-347 S40
8-084 T36
5-502 V07
2-272 Y17+
7-907 B32+

R D
10-970 R20
61-616 V24
57 568 A35
75-403 B32

R D
45-664 R32
02-108 R34
44-065 S33
49-533 T15
16-323 T51
05-088 A12
45-605 B32

-S BD
-77-175 S01
024-251 S07
230-279 S16
047-889 S24
375-829 U51
--57-948 W32
024-251 B32

-S ABD
756-369 S12+
013-461 S14
047-317 S16
005-620 S19
070-093 S49
263-956 T07
713-981 U07
-921-848 U11
-575-963 X25+
009-757 Y15+
047-317 B32+

5-S ADJ
7105-038 S44+
2118-116 S45
6004-960 S49
7101-529 S49
2086-087 T11
3657-402 T19
-899-317 T20
3658-955 T20
-932-115 U36
1331-715 U39
-940-676 V06
9019-397 B32+

9-T D
-769-827 T03
7109-495 T04
2134-215 T06
2101-555 T27
-943-427 V12
1355-187 V23
3844-969 V45
-562-877 W30
2134-215 B32

25-T BD
2144-249 T12
2105-254 T30
-528-267 T50
3043-868 V01
2144-249 B32

79-T DE
3646-238 T13
2153-592 B32+

57-T D
2154-031 T20
7114-575 T20
7011-992 T26

FR 2110-786 T39
GB 1330-390 U38
SW 7412-420 W13
DS 2154-031 B32

56763-T BDEH
DT 2203-467 T36
J4 7019-093 T40
FR 2125-334 U02
DT 2203-467 U03
US 3736-229 U24
GB 1374-474 V47
J7 9019-474 B32

56768-T DJ
DT 2203-950 T36
US 3716-141 U09
CH -544-562 V07
GB 1358-802 V27
IL --38-670 W33
CA -977-691 W48
J4 7029-284 B32+
J7 9019-393 B32+

62235-T BD
BE -780-875 T39
NL 7203-558 T41
DT 2213-134 T45
FR 2129-774 U06
ZA 7201-859 U27
US 3749-643 U34
US 3817-833 V26
US 3817-830 V26
GB 1380-443 W03
CA -960-948 W05
CH -572-620 X15
DS 2213-134 B32

73218-T BD
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DT 2219-063 T47
FR 2165-832 U43
US 3843-446 V44
GB 1385-585 W09
IL --39-228 X09
CH -575-432 X25
US 3977-941 X37
CA 1008-005 Y16
J7 7018-273 Y24
DS 2219-063 B32

74817-T BD
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DT 2122-294 T49
FR 2135-301 U09
US 3806-420 V18
SU -421-200 W04
CH -572-522 X15
DT 2167-120 A47+
DS 2122-294 A49
DS 2167-120 B32+

76784-T D
BE -783-590 T48
NL 7207-169 T51
DT 2127-531 T52
FR 2139-910 U13
US 3962-483 X25
IL --39-272 X49
DS 2127-531 B32

09881-U D
DT 2137-473 U08
DS 2137-473 B32

12398-U ADJ
BE -788-751 U09+
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DT 2244-908 U15
FR 2152-900 U26
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J4 8037-377 V22
GB 1401-873 W32+
US 3951-920 X18+
DS 2244-908 X25+
CA 1003-994 Y05+
J7 7003-906 Y08
J7 9019-395 B32

25913-U BCDE
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NL 7214-067 U19
BE -790-244 U19
ZA 7205-742 U25
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CH -578-349 X39
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SW 7514-553 X40
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SW 7812-197 B17
IT 1029-522 B25
J5 4081-311 B32

50265-U BCD
BE -796-216 U35
NL 7302-546 U46
DT 2308-807 U47
ZA 7301-003 U52
FR 2181-815 V05
J4 9014-625 V15
US 3856-851 W01
CA -978-998 W51
GB 1420-028 X02
CH -590-832 Y36
J7 9019-444 B32

06389-V BD
J4 8077-087 V04
J7 9019-469 B32

06390-V BD
J4 8077-088 V04
J7 9019-470 B32

06391-V BDE
J4 8077-089 V04
GB 1386-705 W11+
US 3905-867 W39+
J7 9019-471 B32

08645-V DE
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BE -802-277 V05
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FR 2192-101 V14
J4 9051-263 V29
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OE 7306-099 W27
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GB 1434-194 X19
CA 1008-869 Y18
CH -587-260 Y22
US 4070-381 A06+
J7 9001-789 B08
DS 2335-277 B32

38591-V D
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FR 2209-454 V40
DS 2354-662 B32

55876-V BCD
J4 9031-890 V31
J7 9019-472 B32

60270-V DJ
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J4 9101-286 W11
US 3899-446 W34
J7 8043-918 A51
DS 2404-757 B32

71489-V DE
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SW 7403-787 V47
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OE 7402-286 Y35
CH -590-657 Y36
SW 7709-160 Y50
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US 4126-702 A48
CA 1058-633 B32

12008-W DE
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FR 2239-210 W20
J5 0042-056 W24
GB 1439-882 X25
CA 1058-442 B32

17984-W D
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BE -819-386 W12
NL 7312-094 W12
FR 2245-413 W27

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US 4024-288 Y21
GB 1482-445 Y32
IT 1019-136 A08
IL --45-519 B32

19648-W D
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BE -826-421 W30
GB 1500-335 A06+
CA 1058-007 B32+

21326-W D
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NL 7412-009 W13
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SW 7411-383 W19
SF 7402-635 W24
FR 2242-934 W24
DK 7404-751 W24
US 3999-474 Y02
GB 1470-879 Y16
IL --45-625 Y26
CH -593-623 A02
IT 1021-206 A19
CA 1050-813 B13
US 4162-332 B32+

27291-W D
US 3876-535 W16
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BE -828-426 W46
J5 0149-142 X03
ZA 7502-694 X21
DS 2518-570 X48
GB 1490-897 Y44
CA 1040-758 A44
J7 9019-114 B32

29956-W BD
NL 7413-373 W18
DT 2448-648 W18
SW 7412-625 W23
FR 2247-253 W29
DL -114-222 W36
J5 0088-209 W37
AR -201-790 W46
GB 1439-738 X25
OE 7408-129 X40
US 3988-440 X45
HU T012-925 Y10
CS 7406-978 B06
SU -619-187 B24
DS 2448-648 B32

30465-W DE
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DT 2509-648 W47
J5 0140-643 X02
FR 2268-790 X07
GB 1427-131 X11
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31473-W D
J5 0004-286 W19
J7 9019-464 B32

34178-W BD
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DK 7405-715 W30
J5 0071-820 W32
FR 2249-679 W34
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GB 1492-596 Y47
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36170-W DJ
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ZA 7501-988 X21+
GB 1469-288 Y14
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42714-W D
BE -825-147 W26
NL 7501-388 W35
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SW 7401-946 W40
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SF 7500-362 W44

DK 7500-368 W45
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OE 7500-915 X40
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CH -605-424 A41
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DS 2505-722 B32

43539-W D
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GB 1461-524 Y02
CA 1058-521 B32

47708-W DF
BE -825-992 W29+
DT 2509-413 W39+
FR 2263-970 X01+
CH -568-919 X02
CH -569-658 X02
GB 1472-038 Y17+
US 4022-391 Y20+
DS 2509-413 B32+

54025-W DE
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NL 7501-088 W33
DT 2503-585 W34
SW 7500-837 W38
FR 2259-898 W47
US 3948-790 X16
GB 1462-484 Y04
CH -596-298 A15
OE 7500-705 B22
CA 1057-907 B32

57221-W D
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CA 1038-271 A39
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64177-W ACDE
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BE -826-737 W40
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SW 7502-924 W45
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SF 7500-396 X04
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HU T013-706 Y37
GB 1496-263 A01
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CA 1058-003 B32

67509-W BCD
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NL 7503-282 W41
SW 7503-231 W46
J5 0134-887 W51
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AR -202-343 X01
FR 2264-490 X02
DK 7501-172 X02
J5 1001-271 X08
GB 1492-454 Y47
US 4065-557 A02
ZA 7501-756 X17
CS 7501-941 A05
IL --46-912 A06
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DS 2462-836 B27+
DS 2413-720 B32

67675-W BCD
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DT 2508-228 X38

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ZA 7601-030 Y07
CA 1058-634 B32

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PT -A64-107 X33
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OE 7505-645 Y39
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IL --47-748 B32

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07128-X CD
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BR 7600-492 X47
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GB 1492-161 Y46
CH -594-494 A09
CA 1058-008 B32

07423-X D
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BE -834-490 X14
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US 4157-279 B25
IL --48-071 B32

09642-X CD
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CA 1058-001 B32

13081-X ADEJ
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15864-X AD
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J7 9019-852 B32

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CA 1058-539 B
DS 2554-118 B

22893-X AD
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CA 1058-040 B3

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FR 2305-132 Y0
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26705-X BDE
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J7 9019-468 B3

28598-X ADE
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J7 8018-469 A2
GB 1520-915 A3
CA 1058-047 B3

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SW 7412-847 X2
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ZA 7506-265 X44
GB 1503-356 A10
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28684-X ADE
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32878-X DL
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J7 9019-876 B32

33922-X DE
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GB 1532-807 A47 +
CA 1058-443 B32 +

33971-X DK
BE -836-171 X19
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GB 1493-698 Y48
CA 1057-947 B32

39643-X DE
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CA 1058-613 B32

40092-X D
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46051-X AD
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GB 1533-405 A47
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48120-X BD
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GB 1473-777 Y20
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52258-X AD
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52480-X ADF
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54190-X BDE
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NL 7810-841 B22+
GB 2008-640 B23+
DK 7804-785 B26+
SW 7810-771 B27+
BR 7807-344 B32+

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24015-B D
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SW 7713-274 B28
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GB 2013-336 B32

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SW 7710-264 B17+
J5 4049-390 B22+
SF 7702-725 B25+
FR 2407-981 B32+

26559-B AD
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27888-B D
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NL 7809-132 B25
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27889-B D
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NL 7809-136 B25
US 4161-483 B31
J5 4080-303 B32

28032-B D
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NL 7808-541 B17
FR 2404-604 B27
DS 2744-050 B32

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29781-B DJM
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J5 4082-307 B32

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29793-B D
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GB 2010-656 B27
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SW 7813-134 B32

31645-B D
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DT 2757-897 B27+
GB 2010-779 B27
NL 7812-264 B28
DK 7805-659 B32
SW 7812-876 B32

31961-B D
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33316-B DH
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SW 7711-500 B23
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33326-B BD
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DK 7803-598 B24
SW 7810-143 B25
FR 2407-263 B31
J5 4080-488 B32

33356-B D
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FR 2407-895 B32

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33374-B AD
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FR 2407-980 B32

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PT --68-822 B31
J5 4082-377 B32

33519-B DE
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BE -875-274 B32+

35242-B BD
BE -871-735 B19+
DT 2749-317 B20
NL 7810-986 B21+
GB 2009-121 B24+
DK 7804-920 B25+
SW 7811-369 B26+
J5 4073-185 B29+
FR 2407-937 B32+

35252-B BDE
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NL 7810-949 B21+
DT 2749-640 B24
DK 7804-906 B25+
NO 7803-699 B26+
SW 7811-418 B26+
J5 4073-792 B30+
SF 7803-357 B30+
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35259-B ADEK
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GB 2010-088 B26
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35669-B D
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37168-B DH
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DK 7803-891 B26
BR 7807-431 B32

37197-B D
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37435-B D
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BR 7806-998 B30
FR 2407-675 B32

37454-B CD
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GB 2007-976 B22+
BR 7807-305 B26+
J5 4067-026 B28
FR 2407-671 B32+

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DK 7805-132 B2
SW 7811-896 B2
BR 7807-568 B3

39012-B D
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39018-B BD
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NL 7900-365 B32
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39027-B D
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GB 2013-172 B32

39132-B D
DL -134-779 B21
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39993-B ADHJ
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BR 7807-261 B26
FR 2407-730 B32

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NL 7900-419 B32

40655-B BCD
BE -873-695 B22
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EP ---3-318 B32
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EP ---2-090 B22
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40979-B D
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BR 7807-387 B32

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DK 7805-432 B29
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GB 2008-486 B23
J5 4082-428 B32

42569-B D
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DK 7805-146 B28
J5 4080-429 B32

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GB 2008-557 B23
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42697-B DE
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J5 4081-237 B32

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DT 2847-202 B25
J5 4080-192 B32

44109-B D
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ZA 7802-766 B25
NL 7804-718 B28
SW 7804-551 B32

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PT --68-866 B32

44451-B CDE
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DT 2845-833 B25+
GB 2009-747 B25+
NL 7810-596 B26+
J5 4081-273 B32

45645-B AD
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NL 7811-919 B29
GB 2013-176 B32

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GB 2010-310 B26
NL 7812-220 B27
DK 7805-672 B31
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SW 7813-004 B32

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GB 2010-309 B26+
NL 7812-288 B27
DK 7805-646 B31
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SW 7813-005 B32

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DK 7805-253 B28
GB 2011-804 B29
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45948-B AD
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J5 4080-428 B32

47067-B DE
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DK 7805-621 B32
SW 7813-201 B32

47146-B DL
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GB 2010-792 B27
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DT 2855-368 B28
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SW 7813-143 B32
PT --68-927 B32

47147-B D
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NL 7812-306 B28+
DT 2855-675 B28+
WP 7900-421 B29+
DK 7805-754 B32+
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SW 7812-765 B32+
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47149-B D
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DK 7805-729 B32
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SW 7714-598 B32
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47150-B CD
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DT 2839-677 B27+
NL 7812-319 B28+
DK 7804-022 B32+
NO 7804-291 B32+
SW 7809-483 B32+
PT --68-940 B32+

47159-B CDGH
BE -872-920 B26
GB 2010-835 B27+
NL 7812-483 B28
SW 7813-183 B32

47162-B ADH
BE -872-938 B26
GB 2011-368 B28
DT 2855-158 B29
PT --68-980 B32

47180-B D
BE -872-978 B26
GB 2010-798 B27
NL 7811-215 B28
DT 2757-561 B28
DK 7805-757 B32
SW 7813-276 B32

47189-B D
BE -872-996 B26
DT 2757-860 B27
NL 7812-371 B28
DK 7805-805 B32

47208-B ADE
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DT 2855-778 B27
GB 2010-892 B27+
NL 7812-439 B28
DK 7805-747 B32
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SW 7813-213 B32

47346-B ADF
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EP ---2-475 B26
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47489-B DHJ
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SW 7812-919 B32

49000-B D
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DT 2900-561 B30+
GB 2013-077 B32+

49015-B BCDE
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DT 2900-118 B28+
NL 7900-006 B29+
GB 2013-181 B32+

49016-B BCDE
BE -873-269 B27+
DT 2900-120 B28+
NL 7900-007 B29+
GB 2013-179 B32+

49370-B ACDF
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SW 7812-874 B31
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49417-B BCDE
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GB 2010-805 B27
SW 7812-826 B32

49430-B ADE
DT 2855-776 B27
GB 2010-893 B27+
NL 7812-334 B28
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GB 2010-823 B27
DT 2855-094 B28
SW 7812-828 B32

49529-B DE
GB 2010-829 B27+
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51124-B BCDE
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SW 7812-832 B32

52561-B D
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DT 2803-066 B31
NL 7900-600 B32

52745-B D
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52922-B CD
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DK 7805-799 B32+

52996-B CD
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DK 7805-742 B32+
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DK 7805-670 B32
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NL 7900-450 B32+
DT 2902-056 B32+

54500-B ADJ
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GB 2012-602 B31
NL 7900-484 B32

54504-B DEH
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DT 2902-118 B31+
NL 7900-486 B32
NL 7900-487 B32

54506-B DEH
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54513-B BCD
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DT 2902-865 B31
NL 7900-305 B32
GB 2013-238 B32

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NL 7900-223 B32

54792-B D
DT 2802-066 B30
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54811-B BD
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SW 7813-066 B32

56291-B DEJ
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DT 2902-876 B32+
GB 2013-339 B32+

56294-B D
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56403-B BCD
DT 2802-396 B31
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NL 7900-574 B32

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GB 2012-556 B31
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OE 7800-451 B31
GB 2012-939 B31
EP ---3-312 B32

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GB 2012-804 B31
NL 7900-364 B32+

56570-B DE
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NL 7900-441 B32

56577-B ADE
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GB 2013-259 B32+

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58008-B ACD
BE -873-858 B32

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58011-B ABD
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58036-B BD
BE -875-073 B32

58051-B D
BE -875-318 B32

58060-B D
BE -875-360 B32+

58072-B D
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CA 1058-776 B32

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58110-B D
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58111-B D
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58124-B D
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58138-B AD
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58148-B D
DL -135-766 B32

58156-B D
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58164-B DEHJ
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58169-B D
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58170-B D
DL -135-828 B32

58189-B BD
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58205-B DJLM
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58213-B D
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58216-B DF
DT 2803-361 B32

58225-B DF
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58226-B ADF
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58231-B DE
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58234-B D
DT 2803-500 B32

58235-B D
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58253-B DEF
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58297-B D
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58298-B DEG
DT 2804-167 B32
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58299-B DE
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58327-B D
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58336-B DH
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58351-B AD
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58357-B AD
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58409-B DE
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58435-B BD
EP ---3-341 B32+

58446-B ADE
EP ---3-371 B32

58453-B AD
EP ---3-390 B32+

58456-B D
EP ---3-394 B32

58497-B BD
FR 2407-718 B32+

58499-B CD
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58509-B DJ
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BR 7807-262 B26

58510-B CD
FR 2407-894 B32

58515-B D
FR 2407-982 B32+

58527-B DJ
FR 2408-277 B32

58528-B DH
FR 2408-279 B32

58550-B DE
GB 2013-085 B32

58551-B DJ
GB 2013-095 B32+

58552-B D
GB 2013-096 B32+

58554-B DE
GB 2013-100 B32+

58561-B ADEM
GB 2013-168 B32+

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GB 2013-170 B32

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58640-B D
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58642-B DL
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58643-B DL
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58719-B DEJ
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58727-B ADE
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58756-B AD
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58781-B ADEF
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58787-B CD
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58789-B ACDE
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58790-B ACDE
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58793-B D
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58795-B DE
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58799-B D
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59114-B
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59115-B D
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59116-B D
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59117-B D
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59125-B A
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59127-B
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-357 B32

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BD
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DJ
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BCDJ
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B D
29-929 B32

B BD
29-931 B32

B DJ
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B D
630-225 B32

B DE
630-228 B32

B ADG
630-274 B32

-B D
630-287 B32

-B D
630-290 B32

-B D
630-291 B32

-B D
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-B ADE
630-293 B32

59534-B D
SU -630-294 B32

59573-B D
SU -630-336 B32

59620-B DJ
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59635-B DJ
SU -630-582 B32

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59651-B D
US 4161-909 B32

59655-B D
US 4161-953 B32+

59664-B D
US 4162-011 B32

59676-B D
US 4162-127 B32

59678-B D
US 4162-129 B32

59691-B DGM
US 4162-163 B32

59695-B DE
US 4162-172 B32+

59703-B BD
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59704-B D
US 4162-196 B32

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59717-B D
US 4162-218 B32

59724-B D
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59728-B DE
US 4162-236 B32+

59738-B DE
US 4162-256 B32

59753-B DJ
US 4162-289 B32

59765-B BCD
US 4162-324 B32+

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59768-B DL
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59769-B CD
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024B D13
028B D15

036B B04D16
519B D21E24
051B D11P2
060B D23
821R D12+Q3Q6

9152A D15

8509B D14J01+P2Q3
8077B C03D22E36F09P6+Q4
1906B D16
0979B D15Q4
7168B D16H01Q4
3370A D17J01
0967B A97D25E16
8984B B05D16E17
7500B A97D15E33
8987B D25E19

58072B D15+P2

54025W D25E19
34123Y D18P2
33971X D15K07

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81122X A97C03D13
64177W A97C03D13E17+P1
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63363A D13
19648W D13
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28932Y A96D22E37+P3
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0 30465W D21E14
6 70719W A60C03D22E19+P6
1 66693X D11
2 12008W D23E17P1
3 33922X D13E17
0 90463Y D11+Q3Q5R1
4 65195X D15E11M14+Q6
3 24112X D12+Q7
1 43539W D21
2 43507Y D22J07P3Q7
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9 18860X D16
0 72175X B04D16
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3 39643X D17E13
8 54190X B05D21E16
5 65017X B05D13E15
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4 70688W D13E17
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